

Private Returns to Bureaucratic Appointments: Evidence from Financial Disclosures in India *

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Abstract

We examine whether bureaucrats with fixed salaries obtain high private returns. We digitize the financial disclosures of elite bureaucrats from India and combine this novel data with web-scraped career histories to estimate the private returns to public servants after bureaucratic reassignments. Employing a difference-in-differences event study approach, we find that the annual growth rate is 10% higher for the value of assets and 4.4% higher for the number of assets after a bureaucrat is transferred to an important ministry with the power to make influential policies. Exploring the underlying mechanism, we document that the results are consistent with an explanation based on the rent-seeking behaviours of bureaucrats. The increase in assets is higher after reassignment to important ministries that are more prone to corruption and is higher in more corruption-prone states. Bureaucrats working in their home states accumulate more immovable assets after the bureaucratic transfers. Previous experience in important ministries continues to contribute to the asset accumulation of bureaucrats. These findings add new insights to the conventional view on the incentives in bureaucracies by showing that bureaucrats may also face high-powered incentives in the form of private returns.

JEL-classification: D72, D73, M50, H70, H83

Keywords: Bureaucratic Appointments, High-powered Incentives, Rent Seeking, Civil Servants

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1 Introduction

Bureaucracies worldwide typically provide low-powered incentives that have less wage differentiation (Wilson, 1989). In theory, this incentive structure may be an optimal outcome (Holmstrom and Milgrom, 1991; Tirole, 1994). The multi-dimensional goals of bureaucracy and complex tasks that bureaucrats need to complete make it difficult to measure output and apply performance incentives (Holmstrom, 1982; Propper and Wilson, 2012; Besley et al., 2021). Furthermore, using incentive pay based on the output of one task may induce bureaucrats to substitute efforts from other tasks where output is harder to measure, which may be detrimental to the governments’s interests (Holmstrom and Milgrom, 1991; Dewatripont, Jewitt and Tirole, 1999; Besley and Ghatak, 2018). Private financial returns to bureaucrats may undermine the optimality of incentive schemes in bureaucracies. Bureaucrats play a crucial role in state capacity and public service delivery.¹ Understanding the incentives faced by bureaucrats is important because they may affect selection into the bureaucracy² and the performance of bureaucrats. Further, private returns due to rent seeking may reduce the quality of governance (Wade, 1985; Shleifer and Vishny, 1993; Sukhtankar, Vaishnav et al., 2015).

The empirical evidence on the existence of high-powered incentives in terms of private returns in bureaucracies has remained scarce. Given that bureaucrats often face rigid salary structures, the conventional wisdom is that they do not face high powered incentives. This conventional wisdom is difficult to evaluate because information on the wealth status of bureaucrats is seldom publicly available. In addition, any change in officials’ wealth may be due to other factors, such as unobserved abilities of officers.

In this paper, we examine whether there are high-powered financial incentives for bureaucrats in the elite civil service in India, the Indian Administrative Service (IAS). In particular, we look at the economic returns for bureaucrats after reassignment to important ministries. We find that the private returns of being a bureaucrat are high, and bureaucrats do not face low-powered incentives. IAS officers perform the vital functions of civil administration and policy making in the Government of India. Throughout their careers, IAS officers are transferred between posts frequently, at the discretion of political executives and senior bureaucrats. We digitized over 31,000 reports of immovable property of more than 5,100 IAS officers in all states from 2012 to 2020. We combine these data with career histories, including postings, and demographic characteristics of IAS officers during the same period.

Our setting provides two sources of variation that we can use to identify the financial returns to bureaucratic transfers. The first is the frequent change of jobs of officers in ministries at

¹See, for example, Best, Hjort and Szakonyi (2017), Finan, Olken and Pande (2017), and Fenizia (2019).

²See, for instance, studies by Dal Bó, Finan and Rossi (2013) and Ashraf and Bandiera (2018).

different levels of importance. Specifically, posts in some ministries or departments such as Finance and Urban Development are identified as important by existing IAS officers because they provide opportunities to make influential policy decisions (Iyer and Mani, 2012). Posts in important ministries are desirable for officers and may bring private returns to officers, for example, bribes in exchange for better service delivery or economic benefits. Our analysis also leverages rich information on immovable properties acquired by IAS officers over time, such as houses and land. These assets usually represent the vast majority of the total wealth of bureaucrats (RBI, 2017). The immovable property records of officers allow us to track the dynamics of assets before and after transfer to an important ministry.

To estimate the effects of bureaucratic transfers on the asset accumulation of bureaucrats, we adopt a staggered difference-in-differences (DID) method and an event study approach. We compare the change in immovable assets of officers who experienced and did not experience reassignment to an important ministry, before and after the transfer. In particular, the DID approach allows us to control for all the unobserved time-invariant individual characteristics such as intrinsic ability, family background and political connections that may affect transfer decisions and asset accumulation. The identification assumption states that, in the absence of bureaucratic reassignment, the difference in immovable assets between officers with and without transfers should be constant over time, conditional on all controls. An officer may be transferred to an unimportant ministry after reassignment; however, the empirical strategy allows us to more flexibly take into account the lasting effects of working in important ministries in the short run.³ In our baseline estimations, we find that immovable assets increase after reassignment to an important ministry. The results suggest that transfers to important ministries increase the value of immovable properties by 53%, and the number by 19%, corresponding to a 10% higher annual growth rate for the value and a 4.4% increase in the number of immovable properties of an officer than she would have otherwise.

We conduct heterogeneity analyses of the effects at the ministry and state levels, and find evidence that is consistent with rent-seeking behaviours being a mechanism that drives the results. Officers in important positions may seek or accept bribes, as their jobs might have a relatively large impact on people’s lives and economic activities (Wade, 1985; Banik, 2001). Hence, one would expect the increase in assets to be larger in ministries that are more prone to corruption. We proxy corruption by focusing on ministries that are documented to be most corruption-prone (Finance, Urban Development, and District Administration and Land Revenue Management) by Transparency International India (TII, 2018, 2017).⁴ We find that

³In robustness, we employ different independent variables such as important ministry dummy for each year after the transfer (see table B.16) and cumulative years in important ministries after the transfer (see Table B.15), and results are still robust.

⁴Transparency International India asked respondents “If you paid a bribe, which authority did you pay the

the increase in immovable assets is mainly driven by reassignment to important ministries that are corruption-prone. We then examine whether the asset impact of transfers is larger in more corruption-prone states. Karnataka, Andhra Pradesh, Tamil Nadu, Maharashtra, Jammu & Kashmir, Punjab, Gujarat, and West Bengal⁵ are found to be more corruption-prone as the percentage of households experiencing bribery in public services was more than the combined state average according to the Centre for Media Studies (CMS) in 2017 (CMS, 2017). The effects of bureaucratic transfers in corruption-prone states are more than 3.2 times larger than in other states.

We also assess whether the returns to bureaucratic reassignments differ when officers are working in their home states. Officers working in their home states are more familiar with the local environment, culture and language, enabling them to exploit information and social networking advantages for private gains (Dessein, 2002; Ashraf and Bandiera, 2018; Xu, Bertrand and Burgess, 2018). Heterogeneity analyses reveal that the increase in the number of immovable assets for officers working in their home states after reassignment to a corruption-prone ministry is 2.7 times as large as that for officers working in non-home states. Among officials in the corruption-prone states, officers working their home states have a larger asset increase after reassignment.

We explore other mechanisms that might explain the main results. We first document that the results are less likely to be driven by the life cycle decision of buying real estate after reassignment by showing that the asset change is not driven by officers without any immovable properties. The results are not explained by promotions or salary increases after the transfer. To examine the possibility that it is the job title change rather than the ministry change that drives the main results, we control for the job title fixed effects and find a robust relationship between reassignment and assets of bureaucrats. Finally, we rule out that real estate price rises in the new location after reassignment as an explanation.

We subject our results to several robustness checks. We show that the results are robust to using the change in immovable assets as the dependent variable and using cumulative years in important ministries after the transfer as the independent variable. The baseline results also hold when using alternative event windows and performing Poisson regressions. We show that our results hold when we drop observations with the top 1% and top 5% of immovable assets. Finally, following our baseline empirical framework, we conduct a counterfactual analysis by estimating the effects of reassignment to unimportant ministries. We find that being transferred to an unimportant ministry and serving in unimportant ministries thereafter is correlated with

most of it to in the last 1 year". These departments received the most amount of bribes.

⁵West Bengal is also included in the group of corrupt states as it is regarded as the worst performing state in reducing the corruption and both Transparency International India and Centre for Media Studies found that it had a rapid increase in corruption in 2017.

officers having fewer immovable properties, confirming our baseline results.

Contribution to the Literature. This paper contributes to several strands of literature. The first considers the motivations of employees in public organizations, which are crucial for incentivizing the performance and behaviours of bureaucrats. The theoretical foundations were laid by [Holmstrom and Milgrom \(1991\)](#) and [Dewatripont, Jewitt and Tirole \(1999\)](#), who consider the normative rationale for providing low-powered incentives to bureaucrats. Existing work has explored intrinsic motivations such as missions both theoretically ([Besley and Ghatak, 2005](#); [Bénabou and Tirole, 2006](#); [Prendergast, 2007](#)) and empirically ([Ashraf, Bandiera and Jack, 2014](#); [Khan, 2020](#)). The performance-based monetary incentive is studied mainly through field experiments in public sector organisations where performance is easier to measure ([Muralidharan and Sundararaman, 2011](#); [Duflo, Hanna and Ryan, 2012](#); [Olken, Onishi and Wong, 2014](#); [Leaver et al., 2021](#)). The use of explicit, monetary incentives remains the exception rather than the norm ([Besley et al., 2021](#)). Bureaucracies have also relied on other, non-monetary means to induce performance such as prestige ([Iyer and Mani, 2012](#)) and personal preference of work place ([Khan, Khwaja and Olken, 2019](#)). Our paper provides one of the first pieces of evidence on the high-powered incentives faced by bureaucrats in terms of private returns, as reflected in their wealth accumulation using administrative financial disclosure data.

Second, the paper speaks to the questions on measurement of corruption and rent-seeking. The illicit and secretive nature of corruption makes it difficult to detect ([Olken and Pande, 2012](#)). One method is to estimate corruption by direct observation, for instance, [Olken and Barron \(2009\)](#) directly measure corruption by observing the illegal payments made by truck drivers to local police on their routes. A second approach is to estimate the leakage of government funds by comparing the official records of funds released with actual receipts by beneficiaries ([Reinikka and Svensson, 2004](#); [Fisman and Wei, 2004](#); [Imbert and Papp, 2011](#); [Niehaus and Sukhtankar, 2013](#); [Banerjee et al., 2020](#)). A third way is to measure the degree of rent seeking through market inference ([Olken and Pande, 2012](#); [Chen and Kung, 2019](#)). For example, [Khwaja and Mian \(2005\)](#) find that politically connected firms borrow 45% more and have 50% higher default rates in Pakistan. [Fang, Gu and Zhou \(2019\)](#) show that the housing price paid by bureaucrats is significantly lower than that paid by buyers who are not in China. Closely related work by [Fisman, Schulz and Vig \(2014\)](#) indicates that one can use politicians' asset disclosures to examine wealth effects attributable to corruption. We present a new method to measure the rent-seeking behaviours among bureaucrats by comparing the assets of officials before and after bureaucratic transfers across positions of different levels of importance.

The third strand of literature considers the private returns to public offices. Past research mainly focuses on politicians and compares the change in their assets after elections or serving

in the parliament (Eggers and Hainmueller, 2009; Fisman, Schulz and Vig, 2014; Truex, 2014; Szakonyi, 2018). In a related study, Banerjee et al. (2020) examine the asset change of district level officials in a rural employment program in Bihar, India after implementation of the program from 2012 to 2014. We add to this literature in three ways. First, to our knowledge, we are the first to digitize the records of immovable assets of bureaucrats from all ministries in India. Second, rather than compare asset accumulations before and after elections, the panel structure of our data set and the permanent civil service nature of the IAS allows us to present the asset accumulation of bureaucrats over their whole careers. Third, we document that there may also be private returns for bureaucrats after transfers and that may be in part due to rent-seeking behaviours.

This paper also contributes to the literature on corruption and patronage in the process of bureaucratic appointments. Existing studies demonstrate that officials appointed based on connections and bribery perform worse (Wade, 1985; Akhtari, Moreira and Trucco, 2017; Xu, 2018; Ornaghi, 2019; Barbosa and Ferreira, 2019). However, the private returns to bureaucratic appointments which would motivate corruption are not well understood. Xu (2018) shows that governors of colonies connected with the Secretary of State receive a 10% higher salary during the period of patronage. Weaver (2018) documents that employees who paid bribes to get their jobs in the public sector experienced a 40% salary increase in a developing country in his setting. We contribute to the literature by showing that the private returns to bureaucratic appointments could be reflected in the immovable properties of officials, implying that the returns might be underestimated if only salaries are counted, since civil servants' salaries are often rigidly proscribed and the assets of officers are rarely publicly available.

The remainder of this paper is organized as follows. Section 2 introduces background information on the Indian Administrative Service, transfers of officers, and the dataset we use. Section 3 describes the empirical strategy adopted to estimate the relationship between the reassignment and asset changes of bureaucrats. The main results are presented in Section 4. We discuss the underlying mechanisms in Section 5. Section 6 provides the discussions on robustness check of main results. Section 7 concludes.

2 Background and Data

2.1 Background

2.1.1 Indian Administrative Service

The Indian Administrative Service is the highest administrative civil service of the Government of India. The IAS is the successor to the Indian Civil Service (ICS), which was established

during the colonial period, and keeps the traditions and structure of that organization. IAS bureaucrats have life-long careers and remain politically neutral. For example, they cannot join any political parties or take part in any political activities.⁶ IAS officers are involved in civil administration and policy-making and staff the most important posts in the Government of India. In 2019, the IAS had 5205 officers.⁷ They lead government departments or ministries as secretariats in central and state governments, fill executive administrative roles in districts, oversee state-owned enterprises, and are deployed to international organizations.

The IAS officers are regularly recruited through nationwide examination (direct recruits), promotion from state civil service (promotees), and, in rare cases, selection from non-state civil service. In 2019, 71.4% of the current officers were centrally recruited by examination. The competitive examination is conducted by the independent Union Public Service Commission once a year and has a success rate of less than 0.1%.⁸ The highest-ranked test takers are selected into the IAS and undergo two years of training at the Lal Bahadur Shastri National Academy of Administration (LBSNAA). The officers recruited by promotion are usually the best performing civil servants from the lower state civil service.⁹

Upon selection into the IAS, the bureaucrats recruited by exam are assigned to one of the states, known as their cadres, in a quasi-random manner following a complicated rule.¹⁰ The rule factors in the vacancies in states, the preference of officers, their rankings in the exam and other variables. In general, politicians and bureaucrats themselves have little decision power over the assignment process. The ratio of officers posted in their home states to non-home states is maintained at 1:2 to ensure that officers from different states are placed all over India. IAS officers spend most of their career in the state cadres they are initially assigned to, and transfers between states are very rare.¹¹

Officials in the IAS start their careers in districts within their allocated states. They are firstly assigned as subdivisional officers and gradually assume greater responsibilities in the district administration until they become district officers (e.g. as deputy commissioner or district magistrate) after obtaining 4 - 9 years experience. After this, officers typically move between district administration, state government, and the central government. About twenty years after they join the IAS, officers undergo a comprehensive career review conducted by senior officials to determine whether they are eligible to hold higher secretary or secretary-equivalent

⁶See *The All India Services (Conduct) Rules, 1968*

⁷According to Civil List of IAS Officers

⁸See the report by [Baswan et al. \(2016\)](#)

⁹LBSNAA also conducts a 6-weeks induction training programme for officers promoted to the IAS from the state civil service

¹⁰In August 2017, the central government introduced a new cadre allocation policy for the Indian Administrative Service, which incorporates the preference of new officers and vacancies in states. The new policy has little impact on our observations as the officers studied in this project are from 2011 to 2019.

¹¹The transfers across states usually occur in case of marriage or health issues

posts in the central government. This process is called empanelment. The retirement age is 60 for both male and female officials.¹² In the first few years IAS promotions are year-based, thereafter performance is also taken into account. Wages of bureaucrats are determined by the level of seniority or payscale and the number of years working at each payscale level.¹³

2.1.2 Transfers of IAS Officers

IAS Bureaucrats are transferred frequently during their careers. Most postings in the IAS have a minimum tenure of two years,¹⁴ however, consistent with Iyer and Mani (2012) the average tenure of IAS officers is around sixteen months in our sample, indicating the posting changes are quite common during a year. The transfers of bureaucrats are usually across different districts and departments within the state and sometimes between the state and central government or companies. Interstate transfers are rare and subject to strict rules.

The transfers or appointments of IAS officers can be made by the central government or state government at any time irrespective of tenure, depending on the locations of positions. Transfers of officers involve factors such as vacancies, administrative exigency, the matching between posts and bureaucrats, promotion, deputation outside the state, and so on. Officers may, on limited occasions, request to be transferred to particular positions; however, they have very little influence on outcomes. While state-level politicians cannot hire or fire IAS officers, they have the power to evaluate and transfer officers (Banik, 2001). Politicians tend to transfer officers who are later in their careers and use transfers as a control mechanism (Iyer and Mani, 2012). Transfers of senior bureaucrats between the state government and the central government are sometimes politicized as they may lobby politicians for particular posts (Bhavnani and Lee, 2018).

To provide stability of tenure and insulate the bureaucracy from political interference, the process of assignment and tenure for IAS officers has been reformed recently. In 2013, the Supreme Court mandated a fixed tenure of at least two years for bureaucrats.¹⁵ In 2014, a new order¹⁶ issued by the central government required every state government to constitute a Civil Services Board (CSB), which consists of a chief secretary, senior-most additional chief secretary or an officer of equivalent rank and status, and the secretary of the Department of Personnel in the state government.¹⁷ The CSB makes recommendations for all appointments of cadre

¹²A very few officers are hired after retirement or extended for retirement

¹³The pay rules are adjusted to the inflation and economic development every ten years

¹⁴See *Indian Administrative Service (Fixation of Cadre Strength) Regulations, 1955*.

¹⁵The exceptions are promotion, retirement, deputation outside the State or training exceeding two months. See Rule 7 in *The Indian Administrative Service (Cadre) Rules, 1954* and the news at <https://www.thehindu.com/news/national/in-major-reform-sc-orders-fixed-tenure-for-bureaucrats/article5299939.ece>

¹⁶See Rule 7 in *The Indian Administrative Service (Cadre) Rules, 1954*

¹⁷In robustness, we restrict our sample to period from 2014 to 2019 and period 2015 to 2019. The main results are still robust. See Table B.22

officers and examines and seeks detailed justification in cases where officers are nominated for transfer before the minimum period of service is completed. Though the recommendations of the CSB could be overruled by the chief minister,¹⁸ the recording procedure helps to ensure transparency and accountability. The fixed tenure rule could also reduce the influence of the political executives on the transfers of bureaucrats, alleviating concern about political connections or patronage being the defining factor in bureaucratic transfers.

2.1.3 Assets of Bureaucrats and Submission of Asset Report

To ensure the accountability of officials, there are strict rules about the economic activities of IAS officers.¹⁹ Officials are prohibited from engaging directly or indirectly in any business or undertaking any other employment. Officers shall not exercise their influence to secure jobs for any family member in the private or the public sector. They may accept gifts from relatives and friends with no official dealing with them, but they need to report to the government if the value of gifts exceeds 5,000 Rupees (approximately US\$100). Officials are expressly prohibited from giving or taking any dowry from the parents or guardians of a bride or bridegroom. Officers may only occasionally invest in stocks or shares through stockbrokers or equivalent. Frequent trade, speculation in stock markets, and having any other person acting on their behalf to make any investments are forbidden. All these measures imply that the salary paid by the IAS constitutes the vast majority of income for most officers.

To increase transparency in the public sector, IAS officers must disclose the status of their assets and liabilities since joining the service. These assets include both immovable properties, for instance, land and houses, and movable properties. In addition to reporting their own immovable properties, officers must disclose the immovable properties of family members too. By definition, from the government document,²⁰ family members include the spouse, the son or daughter of the officer, and any other person related to by blood or marriage and economically dependent on the officer.²¹ The mandatory reports of properties are submitted annually. To ensure the accuracy of asset information, the Department of Personnel and Training (DoPT) checks the reports and compares the submitted value with the market price of the immovable properties. The Income Tax Department will also examine the under or misreporting of the assets by reviewing the tax records of officers. To facilitate the filing of the immovable asset reports, the Department of Personnel and Training (DoPT) introduced online filing of immovable property reports in 2017.²² If an officer fails to submit the report before the specified date, they

¹⁸The highest elected governor of the state government in India

¹⁹See *The All India Services (Conduct) Rules, 1968*

²⁰See *The All India Services (Conduct) Rules, 1968*

²¹As shown in immovable property return reports submitted by bureaucrats, many of these persons are parents, grandparents, and siblings and so on.

²²We can observe that the submission rate of the immovable property reports increases rapidly over time as

can be punished by being made ineligible for empanelment, deputation or applying to higher posts, and training programmes.²³

2.2 Data

2.2.1 Data on Immovable Assets of Officers

The data set on the immovable properties of IAS officers comes from the Immovable Property Return (IPR) from 2012 to 2020. The IPR reports are submitted by IAS officers in 25 state cadres annually. The IPR reports are in either typed or handwritten, and examples can be seen in Figure A.1. To digitize the dataset, we converted the typed reports into text using optical character recognition techniques, then we extracted the nonstandard text information and converted it to a structured dataset. We manually entered the data from the handwritten reports. The submission rate of IPR reports increases rapidly over time though it remains below 100%, as shown in Figure A.3. We discuss in detail that the submission rate of IPR reports does not respond to our independent variable *Important* in Section 3. Our dataset has 31,079 IPR reports submitted by 5,169 officers, and the bureaucratic assets correspond to the period 2011 to 2019. The IPR contains detailed information on all the immovable properties owned by an officer or any member of his/her family:²⁴ address, size, type (house/flat/land/site), cost, value, ownership, year, and mode of acquisition, and income from the property. We compute the total present value and the total number of immovable properties of an officer in a given year. For properties without information on present value, we use the cost of properties as the present value, if it is available.

Summary statistics of the immovable properties of bureaucrats are displayed in Table 1. The average number of immovable properties is 2.424 in our sample. The mean and median value of immovable properties are 11,519,000 Rupees (about US\$ 230,380) and 5,200,000 Rupees (about US\$ 104,000), respectively. In comparison, the average wealth per adult in India was 544,000 Rupees in 2015 (about US\$ 10,885).²⁵ Though the statistics represent the total value of immovable properties for the family of an officer, the value is still large considering the average family size of 4.8 in India²⁶ and average annual salary of 900,794 Rupees²⁷ in the IAS. In the meantime, the median metropolitan house price was 1,500 thousand Rupees and in underdeveloped rural areas it was 200 thousand Rupees in 2016. There are very few IPR

shown in Figure A.3.

²³See *Submission of Annual Immovable Property Return for the year ending 2020 (as on 01.01.2021)*, Ministry of Tourism, Government of India.

²⁴The definition of a family member is in Section 2.1.3

²⁵According to the statistics by Statista. See <https://www.statista.com/statistics/1248500/india-wealth-per-adult/>

²⁶Data from *Census of India 2011*

²⁷Based on our calculation.

Table 1: Summary Statistics - Immovable Properties

Variables	Mean	S.D.	P1	P10	P25	P50	P75	P90	P99	Obs.
Value	11,519.732	37,425.137	0	0	800	5,200	12,150	24,510	100,000	29,740
Number	2.424	2.495	0	0	1	2	3	5	12	31,079

Notes. Value is in 1000 Rupees. 50 Rupees = 1 USD (average exchange rate between 2011 to 2019).

reports that include the information on movable properties. Immovable properties are a good proxy of the total assets of an IAS official. According to the *Indian Household Finance Report* by the Reserve Bank of India in 2017 (RBI, 2017), real estate consists of more than 77% of the total household assets in India. Fisman, Schulz and Vig (2014) show that immovable properties consist of around 75% of the total assets of a candidate in India. Since underreporting²⁸ of immovable properties is possible, the immovable properties recorded in the IPR reports are likely to reflect a lower bound of the wealth of officers.

We generate a number of variables using the data from the IPRs. We define our key dependent variable, *ln Value*, as the logarithm of 0.01 plus the value of immovable properties of an officer in a given year,²⁹ as the data of immovable assets is right-skewed; we also define *ln Number* as the logarithm of 0.01 plus the number of immovable properties of an officer in a given year. In our robustness checks, we define *share of income-producing properties* as the fraction of immovable properties generating rental or agricultural income. To measure the rate of appreciation of the properties, we create the variable *the Ratio of present value to cost*. More detailed definitions of variables can be seen in Table B.1.

2.2.2 Data on Career Histories of Officers

The data on other individual characteristics of IAS officers is from the *Executive Record Sheet of IAS Officers* (ER Sheet). This dataset contains comprehensive resume information for IAS officers from 1947 to the present. Specifically, the ER Sheet has detailed information on the date of birth, allotment year, education, place of domicile, language spoken, posting history (designation, ministry/department, period, work location, and level of seniority), and training. We web scrape the data from the ER Sheet and use the information for officers from 2011 to 2019. We match the resume data with the immovable property data using the unique identity number for each officer. Since some officers joined or retired during this period, the dataset we assemble is an unbalanced panel.

For the empirical analysis, we leverage the rich information on individual officers and generate the independent variable of main interest, control variables, and variables for robustness

²⁸It is less likely for an officer to overreport her immovable assets as it may attract the investigation of corruption from the government.

²⁹We conduct robustness checks of main results by taking log transformation of value and number of immovable properties with constant 0.1 and 1 as shown in Table B.14

checks. We first, following [Iyer and Mani \(2012\)](#), classify the following ministries as important: Ministry/Department of Excise and Sales Tax, Finance, Food and Civil Supplies, Health, Home, Industries, Irrigation, Public Works, Urban Development, district officer positions, and central government positions.³⁰ The important ministries are defined as ones that provide opportunities to make influential policy decisions. The classification of important ministries is based on detailed interviews with several IAS officers by [Iyer and Mani \(2012\)](#). Overall, around 51.13% of our observations involve officers holding important positions. Our main independent variable is *Important*, a binary variable equal to 1 during and after the year that a bureaucrat was reassigned to an important ministry in our panel for the first time. Though a limited number of officers were transferred to unimportant ministries after the reassignment described above,³¹ we still code the independent variable *Important* as 1 to capture the lasting impact of reassignment to important ministries.

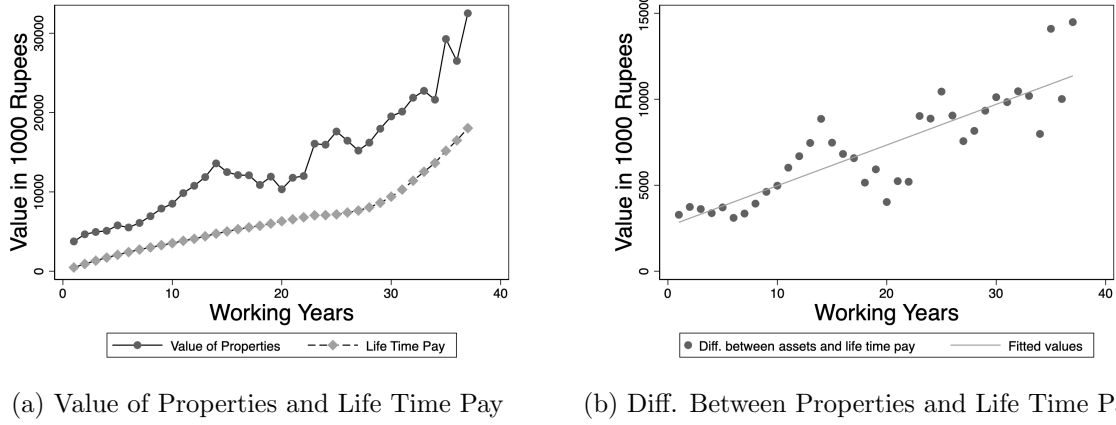
We create a number of other variables based on the information in the ER Sheet. To measure more formally whether the salary is an important determinant of wealth accumulation, we construct the predicted pay for each IAS officer in a given year based on the level of seniority or payscale of an officer and the pay matrix in different periods from *The Indian Administrative Service (Pay) Rules* from 1976 to 2016.³² We also generate the variable *Life time pay* as the total salary since joining the service. We plot the lifetime pay and the value of immovable properties against working years for officers recruited by exam in the Panel (a) of Figure 1, and their difference in Panel (b). The patterns in the figure suggest that though both value of immovable assets and lifetime pay increase over time, the difference between them becomes larger the longer officers work in the IAS. Note that the value of assets is the average across different cohorts, which may lead to a temporary declining trend during certain periods such as from 15 to 20 working years, as shown in both Panels. We measure the career investment in expertise by the total number of weeks spent in training. We define a dummy variable, *Home state*, if the work state cadre of an officer is the same as the state of domicile. The detailed definitions and summary statistics are presented in Table B.1 and B.2.

³⁰In the following, we will use the terms ministries or departments interchangeably. We classify district administration and central government to be ministries, though, strictly speaking, they are not ministries by definition.

³¹In our sample, more than 63% of officers always stayed in important positions after the reassignment, 72% of officers spent 80% of their time in important positions after the reassignment, and around 80% of officers spent 65% of their time in important positions after the reassignment. In robustness, we employ the cumulative number of years in important ministries after the reassignment as the independent variable, and the main results are robust.

³²The salary is a function of the level of payscale and working years in each payscale. The salary consists of the fixed grade pay and basic pay with an annual growth rate of about 3%, allowance and deduction (e.g. tax, etc.) at each level of payscale. The predicted pay of an IAS officer only includes grade pay and basic pay since the allowance and deduction are a tiny proportion of the total salary and almost cancel out.

Figure 1: Immovable Assets and Life Time Pay by Working Years



Notes. Panel (a) in this figure shows the value of immovable properties and life time pay over working years, and panel (b) displays the difference between value of immovable properties and life time pay over working years.

2.2.3 Other Data sets

In order to understand mechanisms, we use several measures to proxy for opportunities for rent extraction. We first identify an important ministry to be corruption-prone if the ministry is one of ministries/departments of Excise and Sales Tax, Finance, Urban Development, or district administration. The variable is created based on a large scale study on corruption by Transparency International India in 2017 (TII, 2017). The national poll surveyed more than 100,000 respondents on their experience with corruption in public services. Departments or posts related to municipality, police, tax, land and house property had the highest percentage of respondents who experienced bribery and received most bribes. We then classify important ministries to be corruption-prone ministries³³ if they provide these services. Similar to our main independent variable *Important*, we define a binary variable *Reassignment to corruption-prone ministries* whether during or after the year that a bureaucrat was for the first time reassigned to an important position that is corruption-prone in our panel. Reassignment to the remaining important ministries is defined to be *Reassignment to non corruption-prone ministries*. A similar corruption study by CMS (2017) and an online survey by *I Paid a Bribe*³⁴ have similar findings on the degree of corruption in departments. Since the classification above mainly focuses on people's experience with corruption in public services, for robustness, we also treat the department of Public Work and Industries as being corruption-prone, because they command a large share of the budget and interact with the market. These ministries leave more room

³³The local district government broadly takes the responsibilities of land records, allotment of land and house, and land revenue collection and so on

³⁴*I Paid a Bribe* is an online platform to collect people reported experience with bribery in India. It has been received more than 198,000 reports from people in 1081 Indian cities since 2010. Among all departments, the departments of Police, Stamps and Registration, Municipal Service, Customs, Exercise and Service tax, and Commercial Tax consist of the vast majority of all reports in terms of number and value. <http://www.ipaidabribe.com>

for bureaucratic discretion and rent extraction in processes such as public project bidding, obtaining licenses, and procurement (FICCI, 2013).

We generate an additional measure of rent-seeking opportunities at the state level based on a corruption study by the Centre for Media Studies (CMS) in 2017 (CMS, 2017).³⁵ This study asked about people’s experience with corruption, covering more than 3,000 households in both rural and urban areas of 20 Indian states 2015-2016. Among all surveyed states, Karnataka, Andhra Pradesh, Tamil Nadu, Maharashtra, Jammu & Kashmir, Punjab, and Gujarat were more corruption-prone, as the percentage of households experiencing corruption in public services was more than the combined state average (CMS, 2017). Additionally, West Bengal was perceived as the worst-performing state in addressing corruption by both CMS (2017) and TII (2017). We define a binary variable, *Corruption-prone state*, to denote if a state cadre is one of the eight states listed above.³⁶

3 Empirical Strategy

To test the average effects of the reassignment to important ministries on the asset accumulation of IAS officers, we compare the change in the immovable properties of officers who were reassigned to important ministries and those who were not, before and after the post changes. This allows us to control for the unobservable characteristics of officers that do not change over time and for unobserved variables in specific periods that affect all officers equally. In particular, we adopt a difference-in-differences approach with variation in treatment timing. Our baseline regression specification is the following:

$$\ln(0.01 + Assets)_{ismt} = \beta Important_{it} + X'_i \times \delta_t + \eta_i + \delta_t + \lambda_{st} + \varepsilon_{ismt} \quad (1)$$

where $\ln(0.01 + Assets)_{ismt}$ is the natural logarithm of 0.01 plus the value or number of immovable properties of bureaucrat i in state s in ministry m in year t , which is either $\ln(Value)_{ismt}$ or $\ln(Number)_{ismt}$. $Important_{it}$ is a binary variable equal to 1 during and after the year that bureaucrat i was for the first time reassigned to an important ministry in our panel. The coefficient of main interest is β , which captures the average post-treatment effect of reassignment on immovable assets of bureaucrats in state s .

$(X'_i \times \delta_t)$ represents interactions of individual-specific time-invariant variables with year fixed effects. These are sex and education (having a graduate degree or not). We include these variables to account for the possibility that it is not reassignment to an important min-

³⁵We do not mainly use the findings on state-level corruption in TII (2017) as it only covered 12 states and asked questions about perceptions of people in states’ progress in addressing the corruption.

³⁶In robustness, we perform estimation with excluding five state cadres, Manipur, Tripura, Nagaland, Sikkim, Telangana, and Uttarakhand, that were not covered by CMS (2017)

istry that affects the immovable assets of bureaucrats, but that bureaucrats having specific characteristics such as master degrees may accumulate assets at a faster rate. Further, in some specifications, we control for the time-varying variable $Training_{it}$, which is the total number of weeks spent in training by an officer since joining the service. η_i and δ_t are officer fixed effects and year fixed effects. λ_{st} are state by year fixed effects. ε_{ismt} is the error term clustered at the individual officer level.

We also estimate a more flexible event-study model, including dummy variables for each period. The flexible model allows us to examine the asset changes within a 16-year window and investigate the parallel trends assumption to ensure that treated officers are not on a diverging path to acquire more immovable assets prior to treatment. The regression specification is the following:

$$\ln(0.01 + Assets)_{ismt} = \sum_{k=-7}^8 \beta_k D_{t-k} + X'_i \times \delta_t + \eta_i + \delta_t + \lambda_{st} + \varepsilon_{ismt} \quad (2)$$

where $\ln(0.01 + Assets)_{ismt}$ is one of the outcome variables $\ln(Value)_{ismt}$ and $\ln(Number)_{ismt}$ for bureaucrat i in state s in ministry m in year t , which are the same as in equation (1). D_{t-k} is a dummy variable indicating the k year lead or lag of the first time officer i is reassigned to an important ministry in our panel. The omitted period is the first lead (one period prior to the reassignment), where $k = 1$. Our main parameter of interest is β_k , which captures the difference between treated and untreated officers compared to the prevailing difference in the omitted base period. The other variables are defined as above.

In terms of identification, the usual parallel trends assumption in empirical frameworks (1) and (2) must be fulfilled. Specifically, the assumption is that the entire frequency distribution of immovable assets in the treated and untreated officers would move in parallel in the absence of the post reassignment. Adopting a difference-in-differences approach helps us control for all unobservable time-invariant individual characteristics of officers such as political connections and abilities that may affect both outcomes and treatment, by including individual officer fixed effects.

One concern for identification is the misreporting and underreporting of immovable properties by bureaucrats, especially when the reporting behaviours are different between treated and untreated officers. We first perform a bounding exercise by comparing the distribution of immovable properties of treated officers and untreated officers. Figure A.2 shows that the assets of these two groups of officers have very similar distributions before reassignment, implying that attrition bias is less of an issue for identification. We also demonstrate that the behaviour of non-submission of the IRP report does not respond to reassignment to an important ministry, as shown in Table B.3. Further, we proxy the misreporting with the share of properties

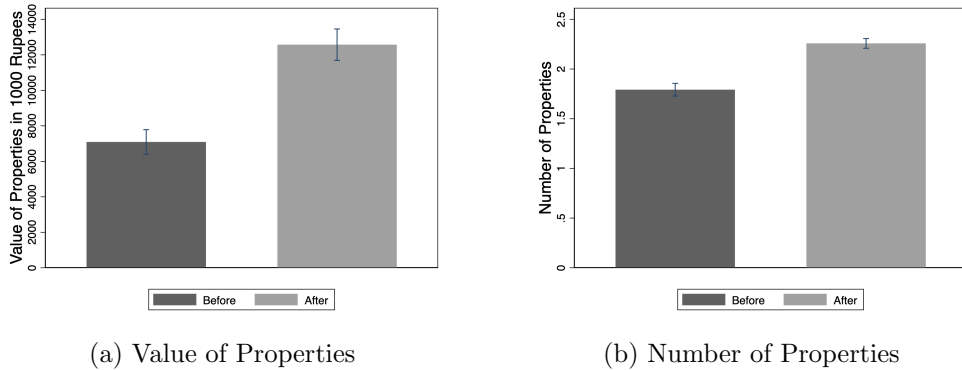
without information on their present value and show that it is not significantly correlated with the treatment in Table B.4. To address the concern of reverse causality, we document that immovable properties do not predict the probability of reassignment to important ministries, as displayed in Table B.5. As is standard, we also use the leading terms in specification (2) to assess pre-existing trends.

4 Bureaucratic Reassignment and Private Returns

4.1 Descriptive Analysis

Before presenting the main results, we start with visual representation of the same trends that we uncover in formal estimations with the raw data. In Figure 2 we plot the average value and number of properties of officers before and after reassignment to important ministries. Note that officers may be reassigned at different years, and there is not a common year of treatment. Therefore we will not be able to display the difference in assets of untreated officers between pre-event and post-event periods. Panel (a) displays the mean value of properties in 1000 Rupees, and Panel (b) displays the mean number of properties before and after the event. Though we cannot subtract the initial difference in assets between the treated and untreated officers, it is clear from the figure that there are significant increases in both value and number of properties after an officer is reassigned to an important ministry. The increase in the number of assets is more modest.

Figure 2: Properties Before and After the Reassignment



Notes. This figure shows the difference in assets before and after the reassignment to important ministries for officers 2011-2019. The confidence interval is at 90% level.

4.2 Main Results

We now turn to the analysis of the patterns illustrated in Figure 2 on the basis of the empirical framework we developed in Section 3. We first look at the main results for the difference-in-differences estimation as shown in Table 2. We estimate the average effects of reassignment

for two outcome variables, the logarithms of the value and number of immovable properties of an officer in a given year. In column (1), we report sparser specifications with only individual officer fixed effects and year fixed effects. We find a statistically significant increase in the value of immovable properties. In column (2), we add the interaction term of state dummy and year fixed effects. In column (3), we control for the basic demographic variables: female dummy and graduate degree dummy, each interacted with year fixed effects, and the time-varying training of an officer. Across the first three columns, we observe a robust and significant increase in the value of immovable properties after an officer is reassigned to an important ministry. Another way to look at the asset accumulation of an officer is to count the number of immovable properties. Columns (4) to (6) display the results for the number of immovable properties of officers with the same control variables as in the first three columns. Similarly, reassignment to an important ministry significantly increases the number of immovable properties of officers.

In terms of magnitude of the treatment effects, focusing on column (3) in Table 2, the coefficient of 0.429 implies that after being transferred to an important ministry, the value of an officer's immovable properties increases by 53.5% on average over an eight-year post-event period, which also corresponds to an excess 10 percent compound annual growth rate.³⁷ The coefficient for the number of properties is 0.179 in column (6), implying that the number of immovable properties increases by 19.6% after the reassignment, or an excess 4.4 percent compound annual growth rate.³⁸ The increase is larger for the value than for the number of properties, which might be explained by the price appreciation of real estate over time³⁹ or the possibility that the newly bought houses or lands are more expensive than properties one already owns. As a comparison, Banerjee et al. (2020) find that an e-governance reform that can reduce leakage in India led district officials' reported median personal wealth to fall by 36 per cent.

4.3 Results of Event Study Analysis

To evaluate the period-specific effects of reassignment on the immovable assets of bureaucrats, we now present results from the more flexible difference-in-differences event study estimation. Based on the empirical framework of specification (2), we perform the regression for both the value and number of immovable assets, including the entire set of control variables and fixed effects. We plot the coefficients of the first three leads and seven lags of the reassignment in

³⁷The compound annual growth rate is computed with the formula $g_{compound} = \left(\frac{V_{final}}{V_{begin}}\right)^{1/t} - 1$, where V_{final} is $(1 + \text{average growth rate})$ i.e. $(1 + 53.5\%)$, V_{begin} equals 1, and t is the average length of period after reassignment i.e. 4.5 years.

³⁸The compound annual growth rate is computed with the average growth rate of 19.6% for the number and average length of period after reassignment i.e. 4.5 years.

³⁹In Table B.10, we show that the correlation between price appreciation and the value of properties is 6.5 times larger than the correlation between price appreciation and the number of properties.

Table 2: Reassignment to Important Ministries and Assets

Dependent variable	ln Value			ln Number		
	(1)	(2)	(3)	(4)	(5)	(6)
Important	0.480*** (0.169)	0.495*** (0.168)	0.429** (0.167)	0.193*** (0.045)	0.199*** (0.045)	0.179*** (0.045)
Training	No	No	Yes	No	No	Yes
Female \times Year FEs	No	No	Yes	No	No	Yes
Graduate \times Year FEs	No	No	Yes	No	No	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	No	No	Yes	No	No
State \times Year FEs	No	Yes	Yes	No	Yes	Yes
Observations	29,226	29,226	29,144	30,610	30,610	30,526
R^2	0.772	0.776	0.777	0.765	0.768	0.770
Mean dependent vars.	11.704	11.704	11.701	-0.179	-0.179	-0.180

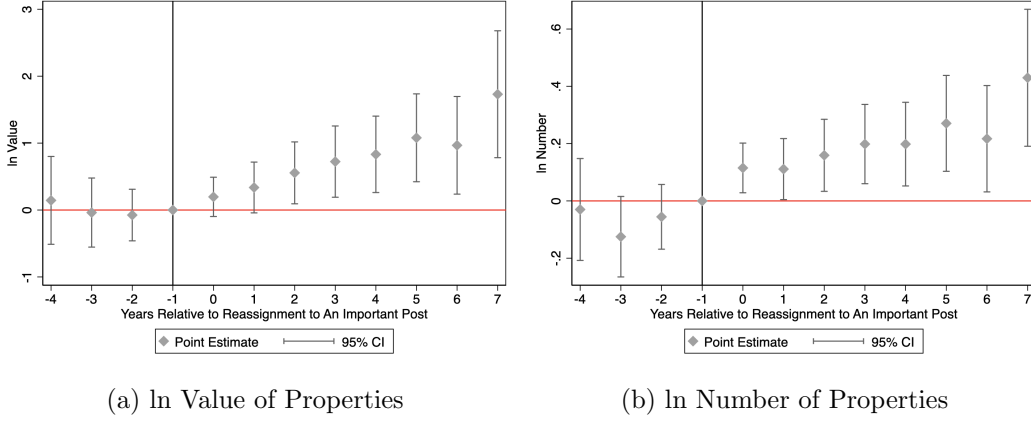
Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Figure 3.⁴⁰ The omitted period is the first lead prior to the event. More detailed regression results can be found in Table B.6. Panel (a) displays the results for the value of properties. We can observe positive and significant effects of reassignment on the value of immovable assets, and the effects become larger over time. Specifically, at the year of transfer, the immovable assets increase by 21% compared to the year prior to the transfer. The effect continues to increase, and six years after the reassignment, the value of assets can grow by 163%. Panel (b) depicts a similar pattern for the number of properties. Officers own more immovable assets after the reassignment. At the year of transfer, officers, on average, have 12% more immovable properties in terms of number, and the increase becomes 24% after six years. In addition, the coefficients of all leads are not significant and close to zero. This suggests that our parallel pre-event trends assumption is satisfied.

After the first time being transferred to an important ministry, an officer may be transferred out to an unimportant ministry. In our data, more than 63% of officers always stayed in important ministries after the reassignment, and 72% of treated officers spent 80% of their time in the panel in important positions after the reassignment. The steady increase in the coefficients in Figure 3 implies that the impact of reassignment is not temporary and might grow over time. Officers may benefit from serving in important ministries and build up political or economic connections during the period, which may bring financial returns over the years.

⁴⁰We do not plot the coefficients of the remaining four leads of the event because the number of observations for them is smaller than 200, which may lead to imprecise estimations of coefficients.

Figure 3: Event Study Analysis



Notes. This figure displays the coefficients of 4 leads and 7 lags of the event study analysis results for the estimation of specification (2) with including *Training*. Panel (a) show the results for the value of immovable properties and Panel (b) show the results for the number of immovable properties. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. Standard errors clustered at the individual officer level are reported in the parentheses.

5 Mechanisms

5.1 Rent Extraction Opportunities

To evaluate the mechanisms that might explain our results, we explore heterogeneity in the effects of reassignment, motivated by the background discussed in Section 2.1. Officers in important ministries can make important policy decisions relevant to people’s lives and economic activities. This gives officers the opportunity to exercise power and seek bribes from people. People may also bribe officers in these positions to access better public services or in exchange for economic benefits. The difference in asset accumulation between transferred and non-transferred officers thus could be explained by the rent-seeking behaviour of officers. We will examine the heterogeneity by the ministry-level and state-level measures of corruption.

Corruption-Prone Ministries. We begin by testing ministry-level heterogeneity. As discussed in Section 2.2.3, we classify important ministries into corruption-prone ministries or ministries and non-corruption-prone ministries. Similar to our baseline independent variable *Important*, we define two independent variables *Reassignment to corruption-prone ministries* indicating whether an officer was for the first time reassigned to an important ministry that is corruption-prone, and *Reassignment to non corruption-prone ministries* indicating whether an officer was for the first time reassigned to an important ministry that is non corruption-prone. The estimation is based on our baseline specification in equation (1) with the entire set of controls and the two independent variables we just defined above.

If the higher asset accumulation of officers with reassignment may be attributed to rent-seeking behaviour, we would expect a greater impact of reassignment to corruption-prone po-

Table 3: Reassignment to Corruption-Prone Ministries and Assets of Bureaucrats

Dependent variable	ln Value	ln Number	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)	(5)	(6)
Reassign. to corruption-prone ministries	0.368** (0.185)	0.149*** (0.050)			0.361* (0.185)	0.147*** (0.050)
Reassign. to non-corruption-prone ministries			-0.265 (0.167)	-0.050 (0.044)	-0.255 (0.167)	-0.045 (0.044)
Training	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No
Observations	29144	30526	29144	30526	29144	30526
R^2	0.777	0.769	0.777	0.769	0.777	0.769

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Reassign. to corruption-prone ministries* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry that is corruption-prone in our panel. *Reassign. to non-corruption-prone ministries* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry that is less corruption-prone in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

sitions. We present the results in Table 3. In columns (1) and (2), we find a significant and positive effect of being transferred to a corruption-prone ministry on both value and number of immovable assets. Quantitatively, reassignment to a corruption-prone ministry is correlated with 44% more immovable assets of an officer in value and 16% in number. In columns (3) and (4), we present results of the reassignment to a non corruption-prone important ministry. There is a negative but not significant response of immovable assets to the reassignment. Finally, we include both types of reassignment into the estimations; hence the control group are officers who were not transferred in the sample. The results in columns (5) and (6) display a consistent and positive impact of reassignment to a corruption-prone ministry on the asset accumulation of officers; its magnitude implies that immovable properties increase by 43% in value and 15% in number over an eight-year post-event period. Meanwhile, the effects of transfer to a non corruption-prone on immovable assets is not significant compared to officers who were not transferred to important ministries. Overall, the results indicate that the rent-seeking behaviour of officers who were transferred to corruption-prone ministries is a channel for higher asset growth of transferred officers.

Corruption-prone States. Another way to examine the heterogeneity by rent-seeking opportunities is to look at state-level corruption. If the high immovable asset growth is explained by rent-seeking behaviour, we would expect to see that the effect of transfer on asset accumulation is more pronounced in states that are more prone to corruption.

We split the sample based on whether an officer works in one of the corruption-prone states

as defined in Section 2.2.3. We then replicate the baseline difference-in-differences estimations for officers in corruption-prone states and non corruption-prone states, respectively. Subsample regressions allow all other control variables affecting the assets of officers in these two groups of states differently. The results are reported in Table 4. Columns (1) and (2) are the regression results for officers in corruption-prone states. The coefficients on *Important* are positive and significant at the 1 percent level for both value and number of immovable assets. As shown in column (3), reassignment displays a positive but not significant effect on the value of immovable assets, and a positive and significant impact on the number of immovable assets. In comparison, the coefficient on *Important* in column (1) for officers in corruption-prone states is 2.8 times as large as that in column (3) for officers in non corruption-prone states. After performing a seemingly unrelated regression, the coefficient difference is significant at the 10 percent level. Similarly, the coefficient on *Important* in column (2) is 2.2 times as large as that in column (4) when the dependent variable is the log number of immovable properties. Quantitatively, an officer in one of the corruption-prone states will see on average a 31% increase in the number of her immovable assets over an eight-year post-event period, however, the increase would be only 12% in non corruption-prone states. The significant differences in the effects of reassignment in corruption-prone and non corruption-prone states is therefore consistent with our conjecture that rent-seeking behaviour is a potential channel for the impact of bureaucratic appointments on asset accumulation. We next explore the asset change after reassignment to a corruption-prone ministry in corruption-prone states. Columns (5) and (6) present the results of our basic specification in equation 1 with the independent variable *Reassignment to corruption-prone ministries*. The coefficients on *Reassignment to corruption-prone ministries* are similar to that on *Important* in terms of significance and magnitude for the value and number of immovable properties. This confirms our findings in Table 3 that the main results are driven by transfers to corruption-prone ministries.

5.2 Home Connections and Asset Accumulation

A different mechanism relates to whether bureaucrats work in their home states. Officers working in their hometown are more familiar with the local environment, culture and language. The greater social proximity between bureaucrats and the localities they serve may increase the collusion and enables bureaucrats to exploit the information and social networking advantages for private gains (Dessein, 2002; Ashraf and Bandiera, 2018; Xu, Bertrand and Burgess, 2018). Working in one's home state may also affect the asset accumulation of officers in other ways. For officers working in their home states, transfers to important positions may increase the market value of the local houses and lands due to the better public services and goods provided by

Table 4: Reassignment to Important Ministries and Assets by Corruption-prone States

Sample Dependent variable	Corruption-prone states		Non corruption-prone states		Corruption-prone states	
	ln Value	ln Number	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)	(5)	(6)
Important	0.704*** (0.269)	0.270*** (0.072)	0.249 (0.214)	0.120** (0.058)		
Reassign. to corruption-prone ministries					0.658** (0.292)	0.278*** (0.079)
Training	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No
Observations	10945	11387	18199	19139	10945	11387
R^2	0.781	0.775	0.775	0.767	0.781	0.775
p-value difference			0.086	0.10		

Notes. The sub-sample *Corruption-prone states* include the states that are regarded to be more corruption-prone by CMS (2017). All remaining states are defined as *Non corruption-prone states*. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Reassign. to corruption-prone ministries* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry that is corruption-prone in our panel. The *p-value difference* is the p-values of chi-square tests of the hypothesis of equal coefficients for *Important* compared to the estimates in column (1) for *ln Value* and column (2) for *ln Number*. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

them. This is because the information and culture advantages allow bureaucrats to work more efficiently, and they have bigger incentives to perform better in their home areas (Bhavnani and Lee, 2018; Persson and Zhuravskaya, 2016); working in important positions also provides them with opportunities to make influential policies.

We begin by testing whether officers working in their home state are more likely to exploit for private gains. Specifically, we estimate the heterogeneous effects of reassignment to corruption-prone ministries and heterogeneous effects of reassignment in corruption-prone states by working in home states. We first replicate our baseline analysis with specification (1) using *Reassignment to corruption-prone ministries* as the independent variable for officers working in their home states and non-home states respectively. Results are presented in Table 5. Comparing columns (1) and (3), we show that there is a significant increase in the value of immovable assets for officers working in their home states, and a positive but much smaller and insignificant increase in immovable assets for officers working in non-home states. The difference in coefficients is significant at the 5 per cent level. Similarly, the coefficient on *Reassignment to corruption-prone ministries* in column (2) is 2.7 times as large as that in column (4) when we look at the results for the number of assets. We also compare the results for the full sample in columns (1) and (2) in Table 3, and find that the effects are 2.5 times larger for officers working in their home states for the value of properties and 1.9 times larger for the number of properties.

We then examine the heterogeneous effects of reassignment on officers in corruption-prone

Table 5: Reassignment to Important Ministries and Assets by Home State

Sample	Home state		Non-home state		Home state & Corrupt. state		Non-home state & Corrupt. state	
	ln Value	ln Number	ln Value	ln Number	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Reassign. to corruption-prone ministries	0.948*** (0.322)	0.287*** (0.088)	0.172 (0.224)	0.103* (0.060)				
Important					0.995** (0.466)	0.350*** (0.133)	0.624* (0.327)	0.244*** (0.085)
Training	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No	No	No
Observations	9297	9731	19842	20790	3886	4047	7059	7340
R^2	0.784	0.773	0.777	0.769	0.779	0.774	0.784	0.776
p-value difference			0.046	0.084			0.512	0.5

Notes. The sub-sample *Home state* includes officers for whom the work state is the home state. The sub-sample *Home state & Corrupt. state* includes officers who work in their home states and their home states are corruption-prone states. The dependent variable *ln Value* (*Number*) is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Reassign. to corruption-prone ministries* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry that is corruption-prone in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

states by home states. The results of the subsample analyses are reported in columns (5) to (8). We observe that among officers in corruption-prone states, the effects are larger for these working in their home states than officers in their non-home state, though the difference of coefficients is not significant. Another way of interpreting the results is to compare them with column (1) and (2) in Table 4. For instance, among officers in corruption-prone states, the coefficient on *Important* for officers working in their home-states, as displayed in column (5), is 1.4(0.995/0.704) times as large as that for the full sample in column (1) in Table 4. Overall, the results suggest that rent-seeking behaviours by officers working in their home states is likely to be a channel for the asset effects of bureaucratic transfers.

To understand whether the heterogeneity by home state is driven by the second hypothesis, we then test whether asset appreciation due to better performance by officials responds to the bureaucratic transfers of officers working in home states and non-home states respectively. We proxy asset appreciations by using the ratio of present value to cost for an officer. We flexibly include the state of domicile dummy interacted with year fixed effects and the interaction term of working city and year fixed effects to account for the real estate price change. The results are reported in Table B.7. We find that there are no significant correlation between reassignment and asset appreciation for either officers working in their home states or non-home states. Since we are not able to directly test the relationship between transfers and the performance of bureaucrats due to the lack of performance data, the results provide suggestive evidence to

Table 6: Experience in Important Ministries

Dependent variable	ln Value		ln Number	
	(1)	(2)	(3)	(4)
Important ministry dummy	0.169* (0.089)	0.146* (0.087)	0.077*** (0.024)	0.072*** (0.023)
Ever important	0.806*** (0.238)	0.786*** (0.237)	0.221*** (0.062)	0.211*** (0.062)
Level fixed effects	Yes	Yes	Yes	Yes
Training	No	Yes	No	Yes
Female \times Year FEs	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No
Observations	29142	29142	30524	30524
R^2	0.775	0.780	0.767	0.772

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important ministry dummy* is a dummy variable indicating whether an officer is currently working in an important ministry. *Ever important* is a binary variable indicating whether an officer ever worked in important ministries. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. *Level fixed effects* are the fixed effects of level of seniority of officers. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

rule out the channel of asset appreciation because of officers delivering better local services and management.

5.3 Experience in Important Ministries

Another potential channel of the effect is related to the experience in important ministries before the reassignment. For example, experience in important ministries might enable officers to build connections with political executives and senior bureaucrats, which may continue to contribute to the asset accumulation after reassignment to unimportant ministries.

To test whether our results are subject to this possibility, we estimate the effects of currently working in an important ministry and experience in important ministries on the asset accumulation of bureaucrats. We define a binary variable, *Important ministry dummy*, to measure whether an officer is currently working in an important ministry. We measure the experience by generating a dummy variable *Ever important* denoting whether an officer ever worked in an important ministry. We replicate our baseline analyses with the two new independent variables defined above. We include level fixed effects to take into account the possibility that *Ever important* may capture unobserved abilities for outside earnings. We present the results in Table 6. We find that previous experience in important ministries displays a significant impact on both value and number of immovable properties. The correlation between *Important ministry*

dummy and immovable assets is positive and significant for both the value and the number. Alternatively, we define two other proxy measures of experience in important ministries: *ln lagged years in important ministries*, which is the logarithm of 0.01 plus the lagged total number of years in important ministries since joining the service, and *IHS lagged years in important ministries*, which is the inverse hyperbolic sine transformation of the lagged total number of years in important ministries since joining the service. The results in Table B.8 display similar patterns for experience to those in columns (1) and (2). Overall, the results suggest that experience in important ministries has a long term effect on the asset accumulation of officers.

5.4 Alternative Mechanisms

5.4.1 Life Cycle Effects

Another hypothesis to explain our findings is that officers transferred to important ministries might decide to buy immovable properties such as houses and flats since they may have better career prospects when working in important positions (Modigliani, 1986). The life cycle decisions of buying immovable properties are likely to be made during the first one or two years after the position change. More generally, it is likely to take place when an officer starts to buy her first house. This explanation is less plausible. First, the IAS service is a lifetime service, and IAS officers do not have to wait until they are promoted or transferred to important ministries to be eligible for a housing loan. Second, the salary of officers follows rigid rules and depends mainly on the level of seniority and experience but not on the ministries they work in. Further, the heterogeneous asset effects of reassignment in corruption-prone states and ministries, as shown in Section 5.1, provide indirect evidence that life cycle effects are less likely, since the life cycle effects should be similar across states or ministries if they are the major driver of the asset change. We perform several estimations to rule out this alternative explanation.

We begin by conducting subsample analyses by restricting observations to officers for whom the initial number of assets before the transfer is positive. This helps to take into account the possibility that the results are driven by the first house bought for their own use. For untreated officers or officers who are not transferred, the initial number of immovable properties takes on the value of the number of immovable properties at their first available year in the panel. For treated officers or officers experiencing reassignment, the initial number of immovable properties takes on the value of the number of immovable properties at the year before the transfer, because this can avoid treating the effects for officers with assets to be the effects for officers without any assets at their first available year, as some officers may have no assets in their first available year in the panel and accumulate assets before the reassignment.

We run regressions with the full set of baseline controls and present the results in Table 7.

Table 7: Reassignment to Important Ministries and Assets by Initial Assets

Sample Dependent variable	Number of Properties = 0		Number of Properties ≥ 1		Number of Properties ≥ 2	
	ln Value	ln Number	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)	(5)	(6)
Important	-0.333 (0.397)	0.154 (0.102)	0.426*** (0.140)	0.116*** (0.039)	0.368** (0.147)	0.162*** (0.042)
Training	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No
Observations	7217	7660	21927	22866	15246	15782
R^2	0.672	0.632	0.624	0.643	0.628	0.641

Notes. *Initial assets* are the number of immovable properties at the year before the reassignment to an important ministry for the first time for an officer; for untreated officers, we take on the number of properties at the first year for an officer in the panel. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Columns (1) and (2) are the results for officers without any initial assets. We can see there are insignificant and mixed effects of reassignment on the value and number of assets. We then restrict to officers with at least one initial asset. The value and number of assets are positively correlated with reassignment, as shown in columns (3) and (4). Next, we restrict the sample to officers with at least two initial assets and present the results in the last two columns. We obtain consistent and positive effects of reassignment on assets. The results in Table 7 indicate that the impact of reassignment is probably not driven by buying one's first house after the transfer.

We also test the possibility that the effects are fully explained by purchasing a house at the first location after the transfer, implying after which assets stop increasing at least in the short run. We use first difference of logarithm of 0.01 plus the value or number of properties as the dependent variables, i.e. $\Delta \ln \text{Value}$ or $\Delta \ln \text{Number}$. The dependent variables measure the additional change in the growth rate of assets. We then replicate our baseline regressions for the new dependent variables, controlling for lagged *ln Value* or *ln Number*. If assets remain unchanged after buying the first house, one would expect the coefficient on the variable of interest *Important* to be close to zero after we drop the first one or two years after the transfer.⁴¹ The results, presented in Table B.9, show that the coefficients on *Important* are still positive and significant after dropping the first one or two years after reassignment, and the magnitude

⁴¹We also conduct the analysis by dropping the first three or four years after the transfer, the results are still robust.

of the effects is similar to that in the full sample regressions. The results suggest that assets keep growing after the transfer and the main results are not likely to be fully explained by the purchasing behavior in the first location after reassignment.

Furthermore, we flexibly control for variables that are relevant to the life cycle decisions of officers such as promotion and job title change to address this concern in Section 5.4.2 and Section 5.4.2 respectively. The results indicate that life cycle effects are less likely to explain the main effects of reassignment.

5.4.2 Promotion and Salary

One potential channel of the main effects is promotion and salary. As an example, reassignment to important ministries might be co-linear with the promotion and the associated pay increase. Therefore, it is likely that an officer may decide to buy the houses when they get promoted or receive a higher salary. To test this possibility, we control for the level of seniority fixed effects measuring promotion and log pay of officers in the baseline specification (1). Table 8 shows the estimation results. In columns (1) and (2), we check whether the pay of officers responds to reassignment, including seniority level fixed effects. We find a significant increase in pay, with the magnitude of the effect being relatively small and about 0.7% after reassignment. We estimate the effects of pay and promotion in the remaining columns. Columns (3) and (4) don't include the seniority level fixed effects and display a negative correlation between assets and pay. However, after controlling for promotion in columns (5) and (6), the coefficients on *ln Pay* become smaller in size and not significant. In the meantime, the coefficient on *Important* decreases by 23% for the value of assets and by 16% for the number of assets. Overall, the results imply that promotion and pay of officers alone are not likely to explain the asset change after the transfer, though the magnitude of the effects may drop slightly.

5.4.3 Job Title Change

We consider another potential explanation, namely, that the main effects may be driven by the job title changes after the bureaucratic transfer. Officers with different job titles could obtain different private returns depending on their work contexts and may enjoy different working benefits. Therefore, it may not be important ministries but job titles that have an impact on the asset change. To test this possibility, we control for the job title fixed effects in the baseline specification. The results, summarized in Table 9, reveal that the coefficients on *Important* are still positive and significant for both the value and the number of immovable properties across all specifications. The size of coefficients on *Important* also change little. Overall, the results imply that job title changes are not likely to capture the effects of reassignment on assets. It

Table 8: The Role of Promotion and Higher Pay

Dependent variable	ln Pay		ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)	(5)	(6)
Important	0.006*** (0.002)	0.007*** (0.002)	0.419** (0.167)	0.176*** (0.045)	0.329** (0.164)	0.151*** (0.044)
ln Pay			-1.047*** (0.163)	-0.275*** (0.042)	-0.228 (0.480)	-0.103 (0.125)
Level fixed effects	Yes	Yes	No	No	Yes	Yes
Training	No	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	No	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	No	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	No	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	No	No	No	No	No
Observations	30524	30524	29142	30524	29142	30524
R^2	0.995	0.995	0.778	0.770	0.780	0.772

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *ln Pay* is the logarithm of the pay of an IAS officer in a given year. *Level fixed effects* are the fixed effects of level of seniority of officers. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

is, however, the ministries that matters for the asset accumulation of officers.

5.4.4 Real Estate Market with High Growth Rate

We also test the possibility that the main effects are explained by the fast growth of real estate values in new locations after reassignment or places of domicile. For instance, it is likely that the important ministries are located in cities in which housing prices rise quickly during the period in our panel. The real estate appreciation could increase the value of immovable properties owned by officers, and may also enable them to buy extra houses and land in their new cities or states of domicile. Unfortunately, we do not have the district and city level house and land price data. To take into account the impact of the real estate market, conditional on the baseline specification (1), we flexibly control for the state of domicile dummy interacted with the year fixed effects and the interaction term of working city and year fixed effects.

Table B.11 reports the results. In columns (1) and (2) we include the interaction term of domicile and year fixed effects for both the value and the number of immovable assets. In columns (3) and (4), we add the interaction term of working city dummy and year fixed effects. In the last two columns, we include both interaction terms in the baseline specifications. Across all columns, we find that the coefficients on *Important* for both the value and the number of immovable properties are similar across all specifications compared with Table 2. An alternative possibility on the channel of the real estate market is that officers may receive higher agricultural income or rental income from the immovable properties they hold in the new location. We define

Table 9: The Role of Job Title Change

Dependent variable	ln Value		ln Number	
	(1)	(2)	(3)	(4)
Important	0.385** (0.193)	0.397** (0.191)	0.157*** (0.052)	0.159*** (0.052)
Job title fixed effects	Yes	Yes	Yes	Yes
Training	No	Yes	No	Yes
Female \times Year FEs	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No
Observations	29105	29023	30491	30407
R^2	0.779	0.784	0.771	0.776

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Job title fixed effects* are the fixed effects of job title of officers (even within the same department). *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Share of income-producing properties to be the share of immovable properties that produce agricultural or rental income. Then we replicate the baseline regressions with *Share of income-producing properties* as the dependent variable. The results, summarized in Table B.12, reveal that reassignment does not significantly affect the share of income-producing properties, though we see that a higher share of income-producing properties increases the value and the number of assets. The results confirm that real estate appreciation is not likely to be a channel of the asset effects of reassignment.

6 Robustness

In this section, we outline robustness exercises that we report in the appendix. We begin by showing that our results survive with different dependent variables. We replicate our analysis by using the change in assets, measured by the first difference of *ln Value* or *ln Number*, as the dependent variable. The results are presented in B.13. Across all columns, we can find a consistent and robust positive effect of reassignment on the change in assets in both value and number.

Since our data on immovable assets is right-skewed and contains many zeros, we then test if the main results are sensitive to the transformation of dependent variables. We show the results with various transformations of assets in Table B.14. To be specific, the results are robust when we add a constant 0.1 or 1 when we take the logarithm transformation of the value or number

of immovable properties. Alternatively, we generate the inverse hyperbolic sine of the value and the number of properties – *IHS Value* and *IHS Number* – and obtain similar results to our baseline analysis.

Because some officers may get transferred to unimportant ministries after reassignment, we use alternative independent variables to test the robustness of our results. First, we use the cumulative years in important ministries after the transfer and find a positive and significant effect of transfer on assets as shown in Table B.15. We also employ a flexible measure of reassignment, *Important ministry dummy after reassignment*, denoting a given year to be 1 if an officer works in an important ministry after reassignment and 0 otherwise. This measure takes into account the possibility that an officer may get transferred to an unimportant ministry after reassignment, and then get transferred to an important ministry again. The results displayed in Table B.16 are consistent with our baseline analysis. Furthermore, we add the lagged cumulative years in important ministries to the specifications in Table B.16, and present results in Table B.17. We find that working in an important ministry and past work experience in important ministries positively affects assets. The results also indicate that there are likely to be lasting effects of being in an important ministry. Finally, we also define the variable *Important ministry dummy* to be a binary variable indicating whether an officer works in an important ministry in a given year without considering whether they are transferred or not. We replicate the baseline regressions and present the results in Table B.18. Again, the results are similar to our baseline results.

It is possible that politically connected officers are more likely reassigned to important ministries, and political connections or patronage may explain the main results. Although we do not have direct measures of political connections and patronage for each officer, in light of the findings by Iyer and Mani (2012) that officers are more likely to be transferred after elections, we control for measures of elections in our estimations. Specifically, we add *Important* interacted with the year dummy of State Assembly Election and *Important* interacted with a dummy that an officer was reassigned to an important ministry at the year of State Assembly Election to our baseline specification in equation (1). In Table B.19, we show that the results are similar in both size and significance to our baseline.

To check whether the main results are driven by extreme values, for instance, officers with many immovable assets, we conduct a subsample analysis by dropping the observations with the top 1% or top 5% of assets in terms of value. The results, displayed in Table B.20, show robust evidence that being transferred to an important ministry increases the assets of officials.

To further confirm our baseline findings, we conduct a counterfactual analysis by estimating the wealth impact of reassignment to unimportant ministries. The independent variable *Unim-*

portant is a dummy indicating whether an officer is transferred to an unimportant ministry and stays in unimportant ministries thereafter in our panel. We replicate the baseline regressions using the newly generated independent variable and present the results in Table B.21. We find that reassignment to unimportant ministries decreases the number and value of assets. Restricting the sample to officers who experienced the reassignment, there is no significant increase in immovable properties. The results overall confirm our baseline findings.

Since 2014, every state government has been required to constitute a Civil Services Board to be responsible for the transfers of IAS officers. To check whether this policy change on bureaucratic transfers affects the main results, we restrict our sample to the period 2014 to 2019, and alternatively the period 2015 to 2019. After replicating the baseline regressions, the results are consistent with the baseline findings, as shown in Table B.22.

Finally, we demonstrate that our results are robust to clustering standard errors at the state and ministry level (see Table B.23), using alternative event windows (see Table B.24), and employing Poisson estimation (see Table B.25).

7 Conclusion

In this paper, we examine the high-powered incentives in the form of private returns for bureaucrats after bureaucratic reassignment in the context of India. We undertook a large-scale digitization of newly available immovable property reports to construct a unique dataset that matches the career histories for all IAS officers from 2011 to 2019. Two sources of variation are critical to our analysis. The first source of variation stems from the frequent job changes of officers in ministries at different levels of importance. The second source of variation is the immovable properties acquired by IAS officers over time, allowing us to track asset change before and after bureaucratic transfers.

Our main findings suggest that over an 8-year period post the reassignment, officers who are transferred to an important ministry see immovable properties increase by 53% in value and 19% in number. The effects also correspond to an approximately 10% higher annual growth rate for the value of their assets and a 4.4% higher rate for the number of immovable assets they hold. We argue that the main effects of reassignment are consistent with an explanation based on the rent-seeking behaviours of officials by showing that, the increase in assets is greater in more corruption-prone ministries, and in more corruption-prone states. Moreover, the effect is larger for officers working in their home states, where they can use their local information and cultural advantages to obtain private gains from their positions. Notably, previous experience in important ministries continues to contribute to the asset accumulation of bureaucrats. We also explore alternative channels and demonstrate that the results are less likely to be explained

by the life cycle decision of purchasing houses on the basis of good career prospects, getting a promotion and receiving a high salary, job title change, and real estate price increase.

Taken together, these findings add new insights to the conventional view that bureaucracies typically provide low-powered incentives. Instead, we provide novel evidence on the high-powered incentives faced by the bureaucrats in the form of private financial returns. These private returns, which are partly explained by rent seeking, may undermine government effectiveness due to the multitasking feature of bureaucracies. Our findings also suggest an alternative way to detect the rent seeking behaviours of bureaucrats, by comparing the officials' assets before and after bureaucratic transfers.

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A Additional Figures

Figure A.1: Immovable Property Return Reports



2019-2010106-1488303900862086

STATEMENT OF IMMOVABLE PROPERTY RETURN FOR THE YEAR 2018 AS ON 01st January 2019

1. Name of Officer (in full) :
 2. Service to which the Officer belongs : IAS
 3. Cadre & Batch : PUNJAB - 2010
 4. Present Pay :

SL NO.	Name of Khassra No., Village/City, Taluk, Sub-Division, District in which property is situated (full location & postal address)	Name & Details of Property (Description)	Cost of construction/Acquirement (and year when purchased) including of land in case of house	Present value*	If not in own name, state in whose name held and his/her relationship to the Govt. Servant	How acquired whether by purchase, lease**, mortgage inheritance, gift or otherwise with date of acquisition and name with details of person(s) from whom acquired.	Annual income from property	Remarks
1	2	3	4	5	6	7	8	9
1	PUNJAB Patiala Patiala Patiala City - 147001	House 190 Sq. Yards	20 Thousand Aprox 1954	20 Lacs	No Tejpal Singh Father 1/2 share in proerty which is presently owned by my father	Purchase n.a. n.a. - 01/01/1954	0	no
2	PUNJAB Patiala Patiala Patiala Theri Village Near Urban Estate, Patiala - 147002	House 285 Sq. Yards Residential House	12 Lacs 2003	50 Lacs approx	Yes Sole No	Purchase Army Welfare Housing Organization (AWHO) Army Welfare Housing Organization (AWHO) - 28/10/2003	0	No
3	PUNJAB Patiala Patiala Patiala Rawas Brahmana Village Rawas Brahmana, Patiala 147001	Land 2 Bigha (2000 Sq. Yards) , Rural Cultivating Land	687500 2010	687500	Yes Sole Through Transfer deed from Father	Inheritance Tejpal Singh Father - 03/03/2010	15000	No

(a) Typed Report

STATEMENT OF IMMOVABLE PROPERTY FOR THE YEAR 2018 (as on 01.01.2019)

1. Name of Officer (in full) and service to which the officer belongs :
 2. Cadre & Batch: Karnataka - 2018
 (in case of IAS officers)
 3. Present post held: Officer Trainee
 4. Present Pay Rs 57800/-

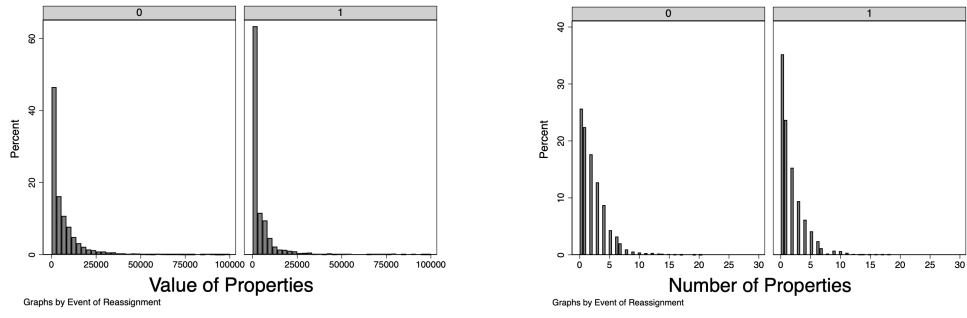
Name of District, Sub-Division, Taluk & Village or in which property is situated (full location & Postal address)	Name & Details of Property, Housing and other buildings	Cost of construction/ Acquirement (and year when purchased) including of land in case of house	Present Value*	If not in own name, state in whose name held & his/her relationship to the Govt. Servant	How acquired whether by purchase, lease**, mortgage, inheritance, gift or otherwise, with date or acquisition and name with details or person(s) from whom acquired	Annual Income from the Property	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Anand Nagar BIDAR	House 1A-282 - 1990 - Plot - 58	1990 -	Sale Deed 5000	Shankar Rao Shinde (Father)	- Parents property -	Residence	-
2. Anand Nagar BIDAR	Sy. 46/1 Plot - 59.	2006 -	Sale Deed 4200/-	Shankar Rao Shinde (Father)	- " -	Open Plot -	-
3. Gauspur Bidar	24/1 f 31/1	1994 -	Sale Deed 15000/- 2000/-	Vandana Shinde (Mother)	- By purchase - (parents property	05000/- 920000/-	agriculture land

Signature:
 Name: Rahul Shinde
 Designation: IAS-OT
 Date: 13-12-2018

(b) Handwritten Report

Notes. This figure shows two examples of Immovable Property Return Reports. Panel (a) is a report with typed text, and panel (b) is a handwritten report.

Figure A.2: Distribution of Properties by Reassignment

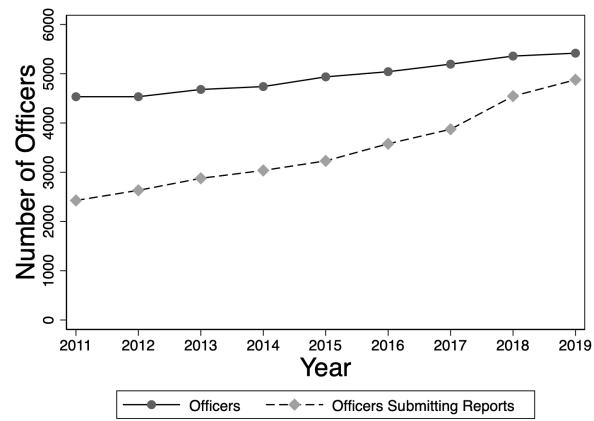


(a) Value of Properties

(b) Number of Properties

Notes. This figure shows the distribution of properties in terms of value and number by reassignment dummy. Reassignment dummy is a binary variable equal to 1 if an officer experiences reassignment in our panel.

Figure A.3: Officers and Submission of Property Reports



Notes. This figure shows the number of IAS officers and number of IAS officers who submitted property reports during 2011 - 2019.

B Additional Tables

B.1 Summary Statistics

Table B.1: Data Sources and Description of Main Variables of Interest

Variable Description and Data Sources

Immovable properties

Value of immovable properties: the value of immovable properties owned by an IAS officer or any member of his/her family in a given year. Source: *Immovable Property Return (IPR)*.

Number of immovable properties: the number of immovable properties owned by an IAS officer or any member of his/her family in a given year. Source: *Immovable Property Return (IPR)*.

ln Value of immovable properties: the natural logarithm of 0.01 plus the value of immovable properties. Source: *Immovable Property Return (IPR)*

ln Number of immovable properties: the natural logarithm of 0.01 plus the number of immovable properties. Source: *Immovable Property Return (IPR)*.

Ratio of present value to cost: the ratio of present value to the cost of immovable properties owned by an IAS officer or any member of his/her family in a given year. Source: *Immovable Property Return (IPR)*.

Share of income-producing properties: the share of immovable properties producing rental income or agricultural income. Source: *Immovable Property Return (IPR)*.

IAS officers

Important ministry: a ministry that provides opportunities to make influential policy decisions as defined by [Iyer and Mani \(2012\)](#). Important ministries include the ministry of Home, Finance, Industries, Public Works, Water Resources, Urban Development, Central Government, Health & Family Welfare, Consumer Affairs, Food & Public Distribution, District Administration and Land Revenue Management, and central government. Source: *Executive Record Sheet of IAS Officers*.

Important: a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. Source: *Executive Record Sheet of IAS Officers*.

Important ministry dummy: a binary variable indicating whether an officer is currently working in an important ministry. Source: *Executive Record Sheet of IAS Officers*.

Continued on next page

Table B.1 – continued from previous page

Variable Description and Data Sources

Corruption-prone ministry: an important ministry that is one of ministries of Excise and Sales Tax, Finance, Urban Development, or district administration. These ministries had the highest percentage of respondents who experienced bribery and received most bribes as reported in India Corruption Survey 2017 by Transparency International India ([THI, 2017](#)).

Reassignment to corruption-prone ministries: is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry that is corruption-prone in our panel.

Reassignment to non-corruption-prone ministries: is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry that is less corruption-prone in our panel.

Age: the age of an IAS officer in a given year. Source: *Executive Record Sheet of IAS Officers*.

Working years: number of years working in IAS in a given year. Source: *Executive Record Sheet of IAS Officers*. *Female*: a binary variable equal to 1 if an IAS officer is female. Source: *Executive Record Sheet of IAS Officers*.

Graduate: a binary variable equal to 1 if an officer has a graduate degree. Source: *Executive Record Sheet of IAS Officers*.

Training: total number of weeks spent in training since working in IAS. Source: *Executive Record Sheet of IAS Officers*.

Recruited by exam: a binary variable equal to 1 if an officer was recruited by civil service exam, 0 if recruited by selection or promotion from state administrative service. Source: *Executive Record Sheet of IAS Officers*.

Home state: a binary variable equal to 1 if the work state is the home state of an IAS officer. Source: *Executive Record Sheet of IAS Officers*.

Level of seniority: the level of seniority corresponding to payscale for an IAS officer in a given year. There are 7 levels of seniority in total for IAS officers. Source: *Executive Record Sheet of IAS Officers*.

ln Pay: the natural logarithm of the annual pay of an IAS officer. The pay is calculated by authors based on the pay rule and payscale of each officer. Source: *Executive Record Sheet of IAS Officers*.

Continued on next page

Table B.1 – continued from previous page

Variable Description and Data Sources

Working city: The city of work for an IAS officer in a given year. Source: *Executive Record Sheet of IAS Officers*.

Other variables

Corruption-prone state: a binary variable equal to one if the cadre state is one of states Karnataka, Andhra Pradesh, Tamil Nadu, Maharashtra, Jammu and Kashmir, Punjab, Gujarat, and West Bengal. Source: [CMS \(2017\)](#).

Table B.2: Summary Statistics - Other Variables

Variables	Mean	Min	Max	S.D.	Obs.
Important	0.214	0.00	1.00	0.41	31079
Age	43.237	23.00	60.00	9.78	30995
Working years	14.045	1.00	38.00	9.23	31076
Female	0.197	0.00	1.00	0.40	31079
Graduate	0.657	0.00	1.00	0.47	30995
Recruited by exam	0.822	0.00	1.00	0.38	31079
Training	0.350	0.00	8.00	1.23	31079
Home state	0.318	0.00	1.00	0.47	31079
Reassignment to corruption-prone ministries	0.182	0.00	1.00	0.39	31079
Reassignment to non-corruption-prone ministries	0.144	0.00	1.00	0.35	31079
Corruption-prone states	0.373	0.00	1.00	0.48	31079
Ratio of present value to cost	1.563	0.64	18.27	1.60	29015
Important ministry dummy	0.511	0.00	1.00	0.50	31079
Ever important	0.716	0.00	1.00	0.45	31079
Pay	900.794	0.00	3245.29	655.96	31079

Notes. The number of officers is 5169 in the sample. The pay is in 1000 Rupees. Ratio of present value to cost is winsorized at the 1 and 99 percentiles.

B.2 Submission of IPR

Table B.3: Determinants of Submission of IPR Reports

Dependent variable	Submit		
	(1)	(2)	(3)
Important	-0.014 (0.009)	0.001 (0.005)	0.001 (0.005)
Training	0.024*** (0.001)	0.002*** (0.001)	0.002*** (0.001)
ln Pay	0.085*** (0.016)	-0.002 (0.004)	-0.002 (0.004)
Working years	0.002 (0.001)		
Age	-0.026*** (0.001)		
Female	-0.022** (0.010)		
Graduate	0.130*** (0.008)		
Recruited by exam	0.024 (0.025)		
Home state	0.050*** (0.009)		
Working city FEs	Yes	Yes	Yes
Female \times Year FEs	No	No	Yes
Graduate \times Year FEs	No	No	Yes
State \times Year FEs	No	No	Yes
Officer FEs	No	Yes	Yes
Year FEs	Yes	No	No
Observations	44173	43195	43195
R^2	0.436	0.870	0.870

Notes. The dependent variable *Submit* is a binary variable equal to 1 if an officer submitted the Immovable Property Return report in a given year. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.4: Determinants of Missing Information on Property Value

Dependent variable	% properties with value info. missing		
	(1)	(2)	(3)
Important	0.014* (0.008)	-0.004 (0.008)	-0.004 (0.008)
Training	-0.003*** (0.001)	-0.001 (0.001)	-0.001 (0.001)
ln Pay	-0.004 (0.010)	0.020*** (0.007)	0.020*** (0.007)
Working years	-0.000 (0.001)		
Age	-0.003** (0.001)		
Female	-0.011 (0.009)		
Graduate	-0.003 (0.007)		
Recruited by exam	-0.024 (0.020)		
Home state	0.010 (0.008)		
Working city FEs	Yes	Yes	Yes
Female \times Year FEs	No	No	Yes
Graduate \times Year FEs	No	No	Yes
State \times Year FEs	No	No	Yes
Observations	24947	24390	24390
R^2	0.102	0.645	0.645

Notes. The dependent variable *% properties with value info. missing* is the share of immovable properties without the information on present value for an officer in a given year. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.5: Determinants of Reassignment

Dependent variable	Important					
	Full sample		Year of reassignment		Year of reassignment 2	
	(1)	(2)	(3)	(4)	(5)	(6)
Lag Age	-0.004 (0.005)		0.081*** (0.006)	0.080*** (0.006)	-0.005 (0.004)	0.003 (0.005)
Lag Age squared	0.000 (0.000)		-0.001*** (0.000)	-0.001*** (0.000)	-0.000 (0.000)	-0.000** (0.000)
Female	0.007 (0.013)		-0.013 (0.012)	-0.003 (0.013)	-0.001 (0.009)	-0.003 (0.010)
Graduate	-0.010 (0.011)		-0.022** (0.009)	-0.025** (0.010)	0.015* (0.008)	0.010 (0.009)
Recruited by exam	0.226*** (0.034)		0.504*** (0.031)	0.450*** (0.035)	0.095*** (0.022)	0.091*** (0.026)
Home state	-0.009 (0.013)		-0.019** (0.010)	-0.036*** (0.013)	-0.004 (0.008)	-0.013 (0.011)
Lag Working years	0.023*** (0.002)		0.051*** (0.002)	0.051*** (0.003)	0.007*** (0.002)	0.007*** (0.002)
Lag Experience in important ministries	-0.029*** (0.002)	-0.052*** (0.002)	-0.047*** (0.002)	-0.044*** (0.002)	-0.011*** (0.001)	-0.011*** (0.001)
Lag Training	-0.005*** (0.001)	0.001 (0.001)	0.003 (0.003)	0.005 (0.004)	0.003 (0.003)	0.002 (0.003)
Lag ln Value	-0.001 (0.001)	0.000 (0.000)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.001)	-0.001 (0.001)
Lag ln Pay	-0.012*** (0.003)	-0.003 (0.003)	-0.022*** (0.005)	-0.023*** (0.007)	-0.000 (0.006)	0.002 (0.007)
Lag Level FEs	Yes	Yes	Yes	Yes	Yes	Yes
Domicile FEs	Yes	No	No	Yes	No	Yes
Working city FEs	Yes	Yes	No	Yes	No	Yes
State FEs	No	No	Yes	Yes	Yes	Yes
State × Year FEs	Yes	Yes	No	No	No	No
Officer FEs	No	Yes	No	No	No	No
Year FEs	Yes	No	Yes	Yes	Yes	Yes
Observations	30078	29635	4979	4979	4977	4977
R^2	0.226	0.755	0.584	0.656	0.734	0.751

Notes. The sub-sample *Year of reassignment* includes the year of reassignment for officers who experienced job reassignment and the first year in the panel for officers who did not experience job reassignment. The sub-sample *Year of reassignment 2* includes the year of reassignment for officers who experienced job reassignment and the last year in the panel for officers who did not experience job reassignment. The dependent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. All continuous variables take on the lagged value. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.6: Reassignment to Important Ministries and Assets - Event Study

Dependent variable	ln Value	ln Number
	(1)	(2)
Lead 8	-0.655 (1.818)	-0.163 (0.455)
Lead 7	-1.436 (1.261)	-0.298 (0.293)
Lead 6	-0.590 (0.692)	-0.314* (0.182)
Lead 5	-0.361 (0.484)	-0.166 (0.123)
Lead 4	0.144 (0.335)	-0.030 (0.091)
Lead 3	-0.038 (0.263)	-0.125* (0.072)
Lead 2	-0.075 (0.197)	-0.056 (0.058)
Lag 0	0.197 (0.150)	0.115*** (0.044)
Lag 1	0.337* (0.194)	0.111** (0.054)
Lag 2	0.555** (0.236)	0.159** (0.064)
Lag 3	0.723*** (0.272)	0.198*** (0.071)
Lag 4	0.832*** (0.291)	0.198*** (0.074)
Lag 5	1.079*** (0.335)	0.271*** (0.085)
Lag 6	0.967*** (0.372)	0.217** (0.095)
Lag 7	1.730*** (0.484)	0.430*** (0.122)
Observations	29144	30526
R^2	0.778	0.770

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Lead #* is a year dummy indicating # years before the year of reassignment to an important ministry. *Lag #* is a year dummy indicating # years after the year of reassignment to an important ministry. *Training*, *Female* \times *Year FEs*, *Graduate* \times *Year FEs*, *Graduate* \times *Year FEs*, *State* \times *Year FEs* and officer fixed effects are included in all columns. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

B.3 Other Explanations

Table B.7: Asset Appreciation by Home State

Sample	Home state		Non-home state	
Dependent variable	Ratio of present value to cost			
	(1)	(2)	(3)	(4)
Important	0.043 (0.113)	0.029 (0.111)	-0.035 (0.054)	-0.027 (0.055)
Domicile \times Year FEs	Yes	Yes	Yes	Yes
Working city \times Year FEs	Yes	Yes	Yes	Yes
Female \times Year FEs	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No
Observations	7562	7562	17137	17137
R^2	0.697	0.697	0.633	0.640

Notes. The dependent variable *Ratio of present value to cost* is the ratio of present value to the purchasing cost of all immovable properties winsorized at the 1 and 99 percentiles. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Domicile* is the state of domicile of an officer. *Working city* is the working city of an officer in a given year. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.8: Experience in Important Ministries – Alternative Measures

Dependent variable	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)
Important ministry dummy	0.147*	0.074***	0.196**	0.088***
	(0.088)	(0.023)	(0.090)	(0.024)
ln lagged years in important ministries	0.179***	0.045***		
	(0.048)	(0.012)		
IHS lagged years in important ministries			0.642***	0.144***
			(0.162)	(0.041)
Level fixed effects	Yes	Yes	Yes	Yes
Training	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No
Observations	29142	30524	29142	30524
R^2	0.780	0.772	0.780	0.772

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important ministry dummy* is a dummy variable indicating whether an officer is currently working in an important ministry. *ln lagged years in important ministries* is the logarithm of 0.01 plus the lagged total number of years in important ministries since joining the service for an officer in a given year. *IHS lagged years in important ministries* is the inverse hyperbolic sine transformation of the lagged total number of years in important ministries since joining the service for an officer in a given year. *Level fixed effects* are the fixed effects of level of seniority of officers. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.9: Change in Asset Growth Rate and Drop the First Two Years after the Transfer

Sample Dependent variable	Full sample		Drop first year post event		Drop first two years post event	
	$\Delta \ln \text{ Value}$	$\Delta \ln \text{ Number}$	$\Delta \ln \text{ Value}$	$\Delta \ln \text{ Number}$	$\Delta \ln \text{ Value}$	$\Delta \ln \text{ Number}$
	(1)	(2)	(3)	(4)	(5)	(6)
Important	0.287* (0.164)	0.105** (0.047)	0.452** (0.189)	0.104* (0.053)	0.612*** (0.223)	0.148** (0.062)
Lagged $\ln \text{ Value}$	Yes	No	Yes	No	Yes	No
Lagged $\ln \text{ Number}$	No	Yes	No	Yes	No	Yes
Training	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No
Observations	23721	25399	22317	23829	21138	22555
R^2	0.370	0.375	0.383	0.389	0.384	0.388

Notes. The dependent variable $\Delta \ln \text{ Value (Number)}$ is the first difference of the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Lagged $\ln \text{ Value (Number)}$* is lagged value of the baseline dependent variable $\ln \text{ Value (Number)}$. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.10: Local Management and Asset Appreciation

Dependent variable	Ratio of present value to cost		ln Value	ln Number
	(1)	(2)	(3)	(4)
Important	-0.005 (0.044)	-0.004 (0.043)	0.396** (0.168)	0.100** (0.044)
Ratio of present value to cost			0.342*** (0.034)	0.053*** (0.009)
Training	No	Yes	Yes	Yes
Female \times Year FEs	No	Yes	Yes	Yes
Graduate \times Year FEs	No	Yes	Yes	Yes
State \times Year FEs	No	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	No	No
Observations	28482	28403	28403	28403
R^2	0.596	0.601	0.783	0.809

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Ratio of present value to cost* is the ratio of present value to the purchasing cost of all immovable properties winsorized at the 1 and 99 percentiles. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.11: The Role of Real Estate Market with High Growth Rate

Dependent variable	ln Value	ln Number	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)	(5)	(6)
Important	0.440*** (0.167)	0.179*** (0.045)	0.480*** (0.183)	0.202*** (0.049)	0.474*** (0.183)	0.199*** (0.049)
Domicile \times Year FEs	Yes	Yes	No	No	Yes	Yes
Working city \times Year FEs	No	No	Yes	Yes	Yes	Yes
Training	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No
Observations	29138	30520	26598	27966	26589	27957
R^2	0.780	0.772	0.816	0.807	0.818	0.809

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Domicile* is the state of domicile of an officer. *Working city* is the working city of an officer in a given year. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.12: The Role of Higher Share of Income-producing Properties

Dependent variable	% Income-producing properties		ln Value	ln Number
	(1)	(2)	(3)	(4)
Important	0.002 (0.007)	0.003 (0.007)	0.421*** (0.161)	0.175*** (0.044)
% Income-producing properties			4.949*** (0.232)	1.195*** (0.059)
Training	No	Yes	Yes	Yes
Female \times Year FEs	No	Yes	Yes	Yes
Graduate \times Year FEs	No	Yes	Yes	Yes
State \times Year FEs	No	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	No	No
Observations	30610	30526	29144	30526
R^2	0.664	0.669	0.791	0.781

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *% Income-producing properties* the share of immovable properties producing rental income or agricultural income for an officer in a given year. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

B.4 Robustness

Table B.13: Alternative Dependent Variables - Change in Assets

Dependent variable	$\Delta \ln$ Value		$\Delta \ln$ Number	
	(1)	(2)	(3)	(4)
Important	1.239*** (0.204)	1.225*** (0.202)	0.348*** (0.052)	0.337*** (0.052)
Training	No	Yes	No	Yes
Female \times Year FEs	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No
Observations	28453	28374	30609	30525
R^2	0.130	0.144	0.112	0.116

Notes. The dependent variable $\Delta \ln$ Value (Number) is the first difference of the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.14: Alternative Transformations of Assets

Dependent variable	$\ln(0.1 + \text{Value})$	$\ln(0.1 + \text{Number})$	$\ln(1 + \text{Value})$	$\ln(1 + \text{Number})$	IHS Value	IHS Number
	(1)	(2)	(3)	(4)	(5)	(6)
Important	0.369** (0.148)	0.087*** (0.026)	0.309** (0.129)	0.018* (0.011)	0.327** (0.135)	0.024* (0.014)
Training	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No
Observations	29144	30526	29144	30526	29144	30526
R^2	0.779	0.798	0.781	0.832	0.780	0.831

Notes. The dependent variable $\ln(0.1(1) + \text{Value}(\text{Number}))$ is the logarithm of 0.1 (1) plus the value (number) of immovable properties owned by an IAS officer in a given year. The dependent variable *IHS Value (Number)* is the inverse hyperbolic sine transformation of the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.15: Alternative Independent Variables - Cumulative Years in Important Ministries

Dependent variable	ln Value		ln Number	
	(1)	(2)	(3)	(4)
Years in important ministries	0.212*** (0.058)	0.215*** (0.058)	0.057*** (0.015)	0.057*** (0.015)
Training	No	Yes	No	Yes
Female \times Year FEs	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No
Observations	29226	29144	30610	30526
R^2	0.772	0.778	0.765	0.770

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The dependent variable $\Delta \ln \text{Value (Number)}$ is the first difference of *ln Value (Number)*. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.16: Alternative Independent Variables: Important Ministry Dummy After Reassignment

Dependent variable	\ln Value	\ln Number	$\Delta \ln$ Value	$\Delta \ln$ Number
	(1)	(2)	(3)	(4)
Important ministry dummy after reassignment	0.267* (0.143)	0.139*** (0.038)	0.874*** (0.166)	0.250*** (0.043)
Training	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No
Observations	29144	30526	28374	30525
R^2	0.777	0.769	0.143	0.115

Notes. The dependent variable \ln Value (Number) is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The dependent variable $\Delta \ln$ Value (Number) is the first difference of \ln Value (Number). The independent variable *Important ministry dummy after reassignment* is a binary variable equal to 1 if an officer worked in an important ministry after he was for the first time reassigned to an important ministry in our panel in a given year. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.17: Important Ministry Dummy after Reassignment and Cumulative Years in Important Ministries after Reassignment

Dependent variable	ln Value		ln Number	
	(1)	(2)	(3)	(4)
Important ministry dummy	0.267*	0.166	0.139***	0.119***
after reassign.	(0.143)	(0.140)	(0.038)	(0.038)
Lag Experience in important ministries		0.224***		0.047***
after reassign.		(0.063)		(0.016)
Training	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No
Observations	29144	29144	30526	30526
R^2	0.777	0.778	0.769	0.770

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important ministry dummy after reassignment* is a binary variable equal to 1 if an officer worked in an important ministry after he was for the first time reassigned to an important ministry in our panel in a given year. *Lag Experience in important ministries after reassignment* is lagged cumulative number of years working in important ministries after reassignment. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.18: Alternative Independent Variables - Important Ministry Dummy

Dependent variable	ln Value		ln Number	
	(1)	(2)	(3)	(4)
Important ministry dummy	0.311*** (0.095)	0.270*** (0.094)	0.117*** (0.025)	0.107*** (0.025)
Training	No	Yes	No	Yes
Female \times Year FEs	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No
Observations	29226	29144	30610	30526
R^2	0.772	0.777	0.765	0.770

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important ministry dummy* is a binary variable equal to 1 if the ministry an officer worked in is an important ministry in a given year. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.19: Control for Elections

Dependent variable	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)
Important	0.424** (0.170)	0.175*** (0.046)	0.463** (0.190)	0.174*** (0.051)
Important \times Election year	0.021 (0.141)	0.017 (0.038)		
Important \times Transfer at elect. year			-0.143 (0.388)	0.020 (0.106)
Training	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No
Observations	29144	30526	29144	30526
R^2	0.777	0.770	0.777	0.770

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Election year* is a binary variable equal to 1 if the year was the year of State Assembly Election in the state an officer worked in. *Transfer at elect. year* is a binary variable equal to 1 if an officer was for the first time reassigned to an important ministry at the year of State Assembly Election in the state an officer worked in. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.20: Drop Sample with Top 1% and Top 5% of Assets

Sample	Drop top 1%		Drop top 5%	
	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)
Important	0.424** (0.168)	0.106** (0.043)	0.465*** (0.170)	0.116*** (0.043)
Training	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No
Observations	28834	28834	27648	27648
R^2	0.778	0.805	0.780	0.807

Notes. The sub-sample *Drop top 1%* drop the observations with top 1% value of properties in the whole sample. The sub-sample *Drop top 5%* drop the observations with top 5% value of properties in the whole sample. The sub-sample *6 Periods* and the sub-sample *4 Periods* are 3 and 2 years before and after the reassignment respectively. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.21: Reassignment to Unimportant Ministries and Assets

Sample	Full sample				Treated officers			
Dependent variable	ln Value		ln Number		ln Value		ln Number	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Unimportant	-0.497*** (0.165)	-0.469*** (0.166)	-0.152*** (0.043)	-0.149*** (0.042)	0.079 (0.173)	0.124 (0.175)	0.010 (0.046)	0.013 (0.046)
Training	No	Yes	No	Yes	No	Yes	No	Yes
Female \times Year FEs	No	Yes	No	Yes	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No	Yes	No	Yes	No
Observations	29226	29144	30610	30526	7773	7742	8037	8006
R^2	0.772	0.777	0.764	0.769	0.746	0.757	0.751	0.762

Notes. The first four columns are results for full sample, and the column (5) - (8) are results for officers who experienced the reassignment to unimportant ministries. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Unimportant* is a binary variable equal to 1 during and after the year that a bureaucrat was reassigned from an important to an unimportant ministry and stay in unimportant ministries thereafter in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.22: Restrict Sample to After 2013 and After 2014

Sample	Period 2014 - 2019		Period 2015 - 2019	
	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)
Important	0.509** (0.211)	0.207*** (0.059)	0.660*** (0.230)	0.238*** (0.067)
Training	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No
Observations	21461	22612	18498	19565
R^2	0.825	0.804	0.842	0.818

Notes. The first two columns are results for observations 2014-2019, and column (3) - (4) are results for observations 2015 - 2019. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.23: Standard Errors Clustered at Different Levels

Dependent variable	ln Value		ln Number	
	(1)	(2)	(3)	(4)
Important	0.480	0.429	0.193	0.179
Clustered SE (State)	(0.222)**	(0.211)*	(0.063)***	(0.061)***
Clustered SE (Ministry)	[0.207]**	[0.199]**	[0.048]***	[0.046]***
Training	No	Yes	No	Yes
Female \times Year FEs	No	Yes	No	Yes
Graduate \times Year FEs	No	Yes	No	Yes
State \times Year FEs	No	Yes	No	Yes
Officer FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	No	Yes	No
Observations	29226	29144	30610	30526
R^2	0.772	0.777	0.765	0.770

Notes. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.24: Alternative Window Lengths of DID

Window Dependent variable	8 Periods		6 Periods		4 Periods	
	ln Value	ln Number	ln Value	ln Number	ln Value	ln Number
	(1)	(2)	(3)	(4)	(5)	(6)
Important	0.413** (0.164)	0.183*** (0.044)	0.367** (0.159)	0.174*** (0.044)	0.263* (0.151)	0.110** (0.044)
Training	Yes	Yes	Yes	Yes	Yes	Yes
Female \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Graduate \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
State \times Year FEs	Yes	Yes	Yes	Yes	Yes	Yes
Officer FEs	Yes	Yes	Yes	Yes	Yes	Yes
Year FEs	No	No	No	No	No	No
Observations	26969	28269	25910	27148	24195	24343
R^2	0.794	0.781	0.800	0.786	0.808	0.800

Notes. The sub-sample *8 Periods* include 4 years before and 4 years after the reassignment to an important ministry for first time. The sub-sample *6 Periods* and the sub-sample *4 Periods* are 3 and 2 years before and after the reassignment respectively. The dependent variable *ln Value (Number)* is the logarithm of 0.01 plus the value (number) of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table B.25: Poisson Estimation

Dependent variable	Number of properties		
	(1)	(2)	(3)
Important	0.021 (0.019)	0.020 (0.019)	0.037* (0.019)
Working city	No	No	Yes
Training	No	Yes	Yes
Female \times Year FEs	No	Yes	Yes
Graduate \times Year FEs	No	Yes	Yes
State \times Year FEs	No	Yes	Yes
Officer FEs	Yes	Yes	Yes
Year FEs	Yes	No	No
Observations	28305	28226	28076
Pseudo R^2	0.355	0.357	0.360

Notes. Poisson estimates. The dependent variable *Number of properties* is the number of immovable properties owned by an IAS officer in a given year. The independent variable *Important* is a binary variable equal to 1 during and after the year that a bureaucrat was for the first time reassigned to an important ministry in our panel. *Training* is the total number of weeks spent in training since working in IAS in a given year. *Female* is a binary variable indicating whether an IAS officer is female. *Graduate* is a binary variable indicating whether an IAS officer has a graduate degree. Standard errors clustered at the individual officer level are reported in the parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.