

Roving Tax Bureaucrats: Bureaucratic Quality, Tenure, and the Costs of Rotation

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Abstract

Bureaucratic rotation can limit corruption by preventing officials from becoming embedded in the jurisdictions they administer. But rotation may also interrupt the local learning that makes capable bureaucrats become effective. We study this trade-off in the Philippine tax administration, combining assignment records with district fiscal data from 1999 to 2007. We construct a leave-one-out measure of bureaucratic quality from officers' performance in prior postings. Officer quality predicts revenue across assignments, but its returns emerge only with tenure and operate through voluntary remittances rather than enforcement-intensive collections. We then exploit election-period transfer bans that exogenously extend assignments beyond a three-year tenure limit. These extensions generate larger revenue gains under higher-quality officers. The results show that bureaucratic quality and tenure are complements in the production of fiscal capacity. Personnel rules designed to constrain bureaucratic discretion can weaken state capacity when they ignore how differences in bureaucratic quality interact with time in post.

Keywords: Bureaucratic Rotation; State Capacity; Bureaucratic Quality; Tax Administration; Fiscal Capacity; Personnel Management

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Revenue collection is among the most fundamental functions of the state. Governments cannot provide public goods, enforce policy, or sustain administrative institutions without the capacity to raise revenue (Levi, 1988; Tilly, 1990). The exercise of this capacity ultimately depends on bureaucrats. Revenue officers identify taxable activity, determine which cases warrant scrutiny, interact with taxpayers, and sustain expectations that non-compliance will be detected and sanctioned (Slemrod, 2019). This reliance on bureaucratic discretion, however, creates a classic principal-agent problem. The same discretion and repeated interactions that allow revenue officers to collect effectively (Bandiera et al., 2021; Besley, 2020; Rasul and Rogger, 2018) also create opportunities for collusion and side payments (Olken and Pande, 2012; Shleifer and Vishny, 1993; Wade, 1982). To mitigate this risk, governments have long rotated officials across jurisdictions, limiting the time available to develop relationships that can facilitate corruption (Chand and Moene, 1999; Iyer and Mani, 2012; Klitgaard, 1988). But this solution carries a potential cost. Rotation may also disrupt the local knowledge and credibility on which effective bureaucrats' productivity depends. Rotation thus creates a fundamental tension in the organization of the state: a personnel policy designed to prevent capture may also prevent governments from realizing the returns to bureaucratic talent. In this article, we ask whether this trade-off constrains state capacity: does limiting bureaucratic tenure through rotation reduce the returns to bureaucratic quality?

We argue that tenure and bureaucratic quality are complements in the production of state capacity. Capable officials bring administrative skill and judgment to a new assignment, but realizing those advantages requires time to learn the local environment, understand the actors they regulate, and establish effective routines and credibility, consistent with evidence that locally embedded bureaucrats perform better (Bhavnani and Lee, 2018). As this local knowledge accumulates, the returns to bureaucratic quality should increase. Rotation therefore imposes heterogeneous costs. Reassigning a less capable official may sacrifice relatively little administrative capacity, whereas reassigning a highly capable official truncates

the process through which underlying ability becomes increasingly productive. Tenure limits should therefore bind most consequentially for high-quality bureaucrats. This leads us to hypothesize that extending an official’s tenure should increase administrative performance more for higher-quality bureaucrats.

We test this argument using the rotation of Revenue District Officers (RDOs) in the Philippine Bureau of Internal Revenue (BIR), the agency responsible for roughly three-quarters of national tax revenue. The setting allows us to observe both bureaucratic performance and personnel movement with unusual precision. Each revenue district is headed by a single RDO with statutory authority over tax assessment and collection, allowing us to link district revenue performance to the officer in charge. Rotation is centrally administered and statutorily compelled: revenue officers may not remain in the same assignment for more than three years, and most RDOs consequently serve in multiple districts over their careers. In practice, however, tenure sometimes extends beyond this statutory limit. We assemble an officer-district-year panel from archival assignment orders and district fiscal records covering 1999 through 2007, yielding 115 districts, 274 officers, and 520 assignment spells. Crucially, the fiscal records disaggregate total collections into voluntary remittances, collections from deficiency assessments, and recoveries of delinquent accounts. This decomposition allows us to distinguish whether higher-quality officers raise revenue through routine taxpayer compliance or through more active enforcement.

Our empirical analysis proceeds in two steps. We first establish a premise of our argument: that bureaucrats differ meaningfully in quality and that these differences affect revenue performance across assignments. Identifying such differences is challenging because observed revenue reflects not only the officer in charge but also the underlying tax base and other characteristics of the district and year in which the officer serves. We exploit repeated rotation to separate these components. Following the value-added approach developed to identify individual effects in other settings (Chetty, Friedman and Rockoff, 2014*a,b*; Kane and Staiger, 2008; Mulhern, 2023), we construct a leave-one-out measure of each RDO’s

quality from the officer’s revenue performance in prior postings, after removing district and year effects and excluding performance in the focal district. The resulting measure is predetermined and derived entirely from how an officer performed elsewhere. We then examine whether this measure predicts revenue performance when the same officer is assigned to a new district. This first step establishes whether bureaucratic quality is portable across assignments and provides the measure of quality needed to test our central hypothesis.

Our second and principal analysis tests whether tenure causally changes the returns to bureaucratic quality. Doing so requires addressing a separate identification problem: realized tenure is endogenous. High-quality officers may be retained precisely because they perform well, while difficult local conditions may independently affect both an officer’s tenure and revenue performance. We address this problem with an instrumental-variables design that exploits the interaction of two independently determined personnel rules. Revenue officers are statutorily required to rotate after three years in a post, but civil-service regulations prohibit personnel transfers during designated periods surrounding national elections. An officer whose three-year anniversary falls within an election-period transfer ban is therefore more likely to remain in the same district beyond the statutory limit for reasons unrelated to the officer’s performance or local revenue conditions. We use this administrative constraint to instrument for extended tenure and interact it with our predetermined measure of bureaucratic quality. This design allows us to estimate whether exogenously extending an officer’s tenure raises revenue more when the incumbent officer is of higher quality, providing a direct test of our central hypothesis.

We first establish that bureaucratic quality matters for revenue collection, but that its returns emerge only with time in a post. An officer’s quality, measured entirely from performance in prior districts, has no detectable relationship with revenue upon arrival in a new assignment. After one year, however, a one-unit increase in officer quality predicts approximately 11 percent higher revenue, rising to 14 percent after two years. These gains operate almost entirely through voluntary remittances rather than deficiency assessments

or delinquent collections. Higher-quality officers therefore do not appear simply to intensify coercive enforcement. Instead, their advantage emerges gradually through the routine collection of taxes, consistent with an administrative capacity that becomes productive as officers acquire local knowledge and establish effective routines and credibility. A stacked event study around the arrival of high-quality officers yields the same temporal pattern: receiving districts exhibit no differential pre-trends, followed by gradually increasing revenue and approximately 16 percent higher collections after a high-quality officer arrives.

One concern in this analysis is that the returns to bureaucratic quality may depend on the local political environment in which officers operate. Entrenched political actors may constrain bureaucratic autonomy, protect favored taxpayers, or otherwise limit an officer's ability to translate administrative competence into revenue. We check this possibility using variation in the prevalence of political dynasties, a prominent form of local political entrenchment in our setting. We find that the returns to officer quality are undiminished in provinces dominated by political dynasties, suggesting that bureaucratic quality remains productive even in political environments where constraints on administrative autonomy are likely to be greater.

Our central finding concerns whether additional tenure causally increases the returns to bureaucratic quality. Consistent with our argument, the returns to quality are concentrated among officers who remain in their assignments beyond the statutory three-year rotation limit. More importantly, the election-period transfer bans provide exogenous variation in which officers remain beyond that limit. When a transfer ban prevents an otherwise due rotation, the resulting extension of tenure raises revenue disproportionately under higher-quality officers. The reduced-form relationship between transfer-ban exposure and revenue through its interaction with officer quality is positive at every horizon, while neither transfer-ban exposure nor officer quality alone produces a comparable effect. These results provide direct evidence for our core hypothesis that bureaucratic quality and tenure are complements in the production of state capacity. A broader set of placebo, persistence,

alternative-specification, and assignment tests further supports the interpretation that these patterns reflect differences in bureaucratic quality rather than chance or selective assignment.

These findings have broad implications for bureaucratic personnel and state capacity. First, we contribute to research on bureaucratic rotation and personnel transfers (Akhtari, Moreira and Trucco, 2022; Colonnelli, Prem and Teso, 2020; Iyer and Mani, 2012; Khan, Khwaja and Olken, 2019) by identifying a heterogeneous cost of rotation. Rotation can limit the repeated interactions through which discretion gives rise to collusion and capture (Ab-bink, 2004; Chand and Moene, 1999; Klitgaard, 1988), but it also interrupts the accumulation of local experience that converts bureaucratic quality into performance. Its administrative cost is therefore greatest when capable officials are reassigned. This does not imply abandoning rotation. Rather, it suggests that uniform tenure limits may poorly balance the benefits of limiting capture against the heterogeneous returns to retaining capable officials.

Second, we contribute to research on the bureaucratic foundations of state capacity (Brierley et al., 2023; Finan, Olken and Pande, 2017; Pepinsky, Pierskalla and Sacks, 2017). Existing work shows that individual bureaucrats differ in their ability to produce state outputs (Bertrand and Schoar, 2003; Best, Hjort and Szakonyi, 2023; Fenizia, 2022; Gulzar and Pasquale, 2017; Rasul and Rogger, 2018). We identify an important qualification: bureaucratic quality is portable but not immediately productive. Capable officials carry administrative competence across assignments, but its returns emerge as they acquire local experience. State capacity therefore depends not only on bureaucratic quality, but on its complementarity with locally accumulated knowledge. Frequent reassignment can consequently weaken administrative performance even when the quality of the bureaucracy itself remains unchanged.

Third, we contribute to research on tax administration by identifying the margin through which bureaucratic quality generates fiscal capacity (Bergeron et al., 2022; Besley, 2020). While existing work emphasizes enforcement, deterrence, information, and tax morale (Khan, Khwaja and Olken, 2016; Luttmer and Singhal, 2014; Pomeranz, 2015; Slemrod,

2019), we find that the gains from higher-quality officers operate primarily through voluntary remittances rather than deficiency assessments or delinquent collections. Bureaucratic quality thus appears to strengthen the routine administration of compliance rather than coercive enforcement (Levi, 1988). This mechanism also helps explain why the returns to quality emerge with tenure.

The remainder of the article proceeds as follows. We first develop the theoretical argument and derive its five hypotheses. We then describe the Philippine tax administration, its rotation regime, and our data. Next, we present the empirical design and results, culminating in the transfer-ban design that identifies the complementarity between bureaucratic quality and tenure. The final section discusses implications for bureaucratic personnel design and concludes.

Theory

Our argument begins from a tension inherent in bureaucratic rotation. Rotation limits the relationships between officials and local actors that can facilitate capture, but it may also interrupt the accumulation of local knowledge through which capable officials become effective. We argue that bureaucratic quality and tenure are therefore complements: the returns to bureaucratic talent increase as officials acquire experience in the jurisdictions they administer. We develop this argument by establishing the portability of bureaucratic quality, identifying the administrative margin through which it raises revenue, and explaining why its returns require time in a post. We then consider whether local political entrenchment constrains these returns before deriving our central prediction about the heterogeneous costs of rotation.

The Portability of Bureaucratic Quality

Classic accounts of state capacity locate the ability to extract resources and implement policy primarily in organizations and institutions (Mann, 1984; Skocpol, 1985; Tilly, 1990). In the Weberian tradition, administrative capacity rests on professional bureaucracies organized around meritocratic recruitment, formal rules, and predictable careers (Weber, 1978), features associated with stronger administrative and economic performance (Dahlström and Lapuente, 2017; Evans and Rauch, 1999; Rauch and Evans, 2000). Yet implementation ultimately depends on officials who interpret information, allocate administrative attention, direct subordinates, and exercise judgment (Huber and McCarty, 2004; Lipsky, 1980). Administrative capacity may therefore reside partly in the competence of individual bureaucrats (Bertrand and Schoar, 2003; Best, Hjort and Szakonyi, 2023; Brierley et al., 2023; Finan, Olken and Pande, 2017; Gulzar and Pasquale, 2017; Pepinsky, Pierskalla and Sacks, 2017).

If such differences in competence are meaningful, they should persist across assignments. We refer to this property as the *portability* of bureaucratic quality: an officer who performs relatively well in one jurisdiction should also perform relatively well after reassignment, once differences across jurisdictions and common shocks are accounted for. Portability is thus the first premise of our argument. If bureaucratic quality travels with the officer, performance in prior postings should predict revenue collection in subsequent assignments.

The Compliance Margin

If bureaucratic quality affects revenue, through what margin does it operate? Tax collection depends on coercive authority, but deterrence alone does not sustain compliance. Taxpayers also respond to the credibility and predictability of administration, the information available to them, and the ease with which obligations can be met (Bates and Lien, 1985; Besley and Persson, 2011; Besley, 2020; Khan, Khwaja and Olken, 2016; Levi, 1988; Luttmer and Singhal, 2014; Pomeranz, 2015; Slemrod, 2019). Effective revenue administration therefore

involves not only identifying and sanctioning noncompliance, but also sustaining the routines through which taxpayers ordinarily meet their obligations.

We argue that bureaucratic quality should be particularly consequential for this routine compliance margin. Capable officers can organize staff, consistently administer registration and filing, process payments, and sustain expectations that the agency keeps track of tax obligations and can detect noncompliance. These activities should increase revenue collected without requiring subsequent enforcement. By contrast, deficiency assessments and delinquent collections arise after routine compliance has failed and depend more directly on coercive intervention. If portable bureaucratic quality operates primarily by improving routine administration, its revenue gains should therefore be concentrated in voluntary remittances rather than assessment-based or delinquent collections.

The Returns to Quality Require Time

Portable quality need not produce immediate returns. Effective revenue administration also requires knowledge specific to the jurisdiction: the composition of the tax base, the quality of inherited records, the capabilities of local staff, and the compliance histories of taxpayers. Evidence that locally embedded officials outperform outsiders underscores how much of bureaucratic performance rests on precisely this kind of local knowledge (Bhavnani and Lee, 2018). Officers must also establish administrative routines and credibility with the taxpayers they oversee. General administrative competence can improve how effectively these local assets are acquired and used, but it cannot substitute for the time required to accumulate them.

Bureaucratic quality should therefore be largely latent upon arrival and become increasingly productive with tenure. As officers learn the local environment and establish administrative routines, differences in underlying quality should translate more strongly into revenue performance. This yields a distinctive temporal prediction: the relationship between officer quality and revenue should be weak upon arrival and strengthen with time in

the post. This pattern also distinguishes our argument from one in which quality is entirely context-independent, which would imply immediate performance differences following reassignment, or one in which apparent quality reflects favorable assignment, which should generate differences already present at arrival.

Quality under Political Entrenchment

The returns to bureaucratic quality may depend on the local political environment. Where political power is highly concentrated, entrenched families may shield allied taxpayers from assessment or bend enforcement in their favor, narrowing the discretion that revenue officials can exercise (Mendoza et al., 2016; Querubin, 2016). Apparent differences in officer quality could therefore reflect the political environments in which officers have served rather than capacity that travels with the officer. If so, the returns to measured quality should weaken where local political entrenchment is greater.

Our argument predicts otherwise. If bureaucratic quality operates primarily through the routine administration of compliance, its returns need not depend on a politically favorable environment. Capable officers should therefore continue to outperform their lower-quality counterparts even where entrenched political actors may constrain other dimensions of tax administration. The relationship between officer quality and revenue should consequently persist as local political entrenchment increases; systematic attenuation would instead favor the political-capture account.

The Heterogeneous Costs of Rotation

Rotation limits the relationships through which bureaucratic discretion can produce collusion and capture. By shortening officials' tenure in a jurisdiction, it reduces the time available to establish the repeated interactions and reciprocal relationships that facilitate private exchange (Abbink, 2004; Chand and Moene, 1999; Klitgaard, 1988). This rationale

is particularly salient in revenue administration, where officials exercise substantial discretion over actors with strong incentives to seek favorable treatment.

Yet the preceding argument implies that rotation also interrupts the accumulation of local knowledge that activates bureaucratic quality. This cost should be heterogeneous across officials. Reassigning a lower-quality officer may sacrifice relatively little administrative capacity, whereas reassigning a higher-quality officer truncates the process by which underlying competence generates increasing returns. Quality and tenure are therefore complements in the production of state capacity: additional tenure should generate larger performance gains for more capable officials.

This complementarity does not imply that capable officials should simply remain in place indefinitely. Longer tenure may also increase opportunities for capture, while discretionary retention can itself create opportunities for political or managerial manipulation (Akhtari, Moreira and Trucco, 2022; Colonnelli, Prem and Teso, 2020; Iyer and Mani, 2012; Khan, Khwaja and Olken, 2019). Rather, rotation creates a trade-off between limiting local capture and preserving the returns to accumulated experience, a tension formalized in recent theoretical work on the rotation of local officials (Li, 2025). Our central prediction follows from the latter margin: an exogenous extension of tenure should increase revenue more when the incumbent officer is of higher quality.

Hypotheses

The argument yields five hypotheses. The first four establish its component predictions concerning the portability, mechanism, tenure dependence, and political robustness of bureaucratic quality. The fifth states the central implication of the argument: bureaucratic quality and tenure are complements in the production of state capacity.

Hypothesis 1 (Portability). Officer quality measured from prior postings predicts revenue collection in subsequent assignments.

Hypothesis 2 (Compliance margin). The revenue gains associated with higher officer quality are concentrated in voluntary remittances rather than assessment-based or delinquent collections.

Hypothesis 3 (Tenure dependence). The relationship between officer quality and revenue is weak upon arrival and strengthens with tenure in the assignment.

Hypothesis 4 (Political entrenchment). The relationship between officer quality and revenue persists as local political entrenchment increases.

Hypothesis 5 (Quality–tenure complementarity). Exogenous extensions of tenure increase revenue more when the incumbent officer is of higher quality.

Context

We study these arguments in the Philippine tax administration, where revenue collection is organized around territorially defined districts headed by individual revenue officers who rotate repeatedly across posts. Three features of this setting are central to our analysis. First, Revenue District Officers exercise substantial authority over tax collection within their jurisdictions, allowing us to observe performance under successive officers. Second, district fiscal records distinguish routine voluntary remittances from collections generated through more intensive enforcement, allowing us to examine the margin on which bureaucratic quality operates. Third, officers are subject to a statutory three-year tenure limit that occasionally conflicts with election-period restrictions on personnel transfers, generating variation in how long otherwise rotation-eligible officers remain in their posts. We describe each feature in turn.

Revenue Administration and District Officers

The Bureau of Internal Revenue (BIR) is the Philippine national government’s principal revenue agency. Operating under the Department of Finance, it is responsible for assessing and

collecting national internal revenue taxes and accounts for roughly three-quarters of national government tax revenue, with the remainder collected principally by the Bureau of Customs and other government agencies (Congress of the Philippines, 1997; National Tax Research Center, 2011). Revenue administration was particularly consequential during the period we study. Following the 1997 Asian financial crisis, the national tax effort declined substantially, contributing to mounting fiscal pressures by the early 2000s and placing renewed emphasis on improving collections within the existing tax administration (de Dios et al., 2004; Diokno, 2005; Usui, 2011).

The BIR administers taxes through a territorially organized field structure. During our study period, 19 revenue regions oversaw 115 revenue district offices, each headed by a Revenue District Officer (RDO). The Commissioner of Internal Revenue holds statutory authority over assessment and collection and delegates substantial responsibility for these functions to RDOs through administrative issuances (Congress of the Philippines, 1997). Within their jurisdictions, RDOs oversee taxpayer registration, the processing of returns and payments, deficiency assessments, and the collection of delinquent accounts. They also supervise the district personnel responsible for carrying out these functions. RDOs therefore occupy the principal field-level position linking the BIR’s national administrative apparatus to revenue collection within individual jurisdictions.

Revenue Collection and Compliance

District collections arise through three administratively distinct channels that allow us to distinguish routine compliance from more enforcement-intensive forms of collection. The largest consists of *voluntary remittances*: taxes that individuals and firms remit with their returns without a deficiency assessment or collection action by the district office. A second consists of payments resulting from *deficiency assessments*, which arise when the BIR determines that a taxpayer has underpaid an existing liability. A third consists of recoveries from *delinquent accounts*, where established tax liabilities remain unpaid and require further col-

lection activity. The latter two channels therefore entail progressively greater administrative intervention after ordinary remittance has failed.

This distinction maps directly onto the mechanisms developed in the theory. Revenue officers can improve collections by strengthening the routine administration through which taxpayers meet their obligations, or by intensifying enforcement once taxpayers have underpaid or become delinquent. Because our fiscal records separately identify these channels, we can examine not only whether higher-quality RDOs raise total revenue, but also the administrative margin through which those gains occur.

Rotation and Tenure Limits

RDOs do not remain permanently assigned to individual districts. Assignment authority is centralized in the Commissioner of Internal Revenue, who reassigns officers through Revenue Travel Assignment Orders (RTAOs). These orders identify the officers being transferred, their origin and destination offices, and the effective dates of their new assignments. Reassignments commonly occur in waves involving multiple districts, and most career RDOs consequently serve in several jurisdictions over the course of their careers.

Rotation is also statutorily required. Section 17 of the National Internal Revenue Code authorizes the Commissioner to reassign revenue personnel and provides that officers whose principal duties involve assessment or collection “shall not remain in the same assignment for more than three years” (Congress of the Philippines, 1997). The rule reflects a longstanding concern that prolonged assignments can allow revenue officers to develop relationships with local taxpayers that facilitate collusion and corruption (Manasan, 2003). The three-year limit thus institutionalizes precisely the trade-off developed in our theory: officers are periodically removed from the jurisdictions in which they have accumulated local experience in order to limit the risks associated with prolonged local embeddedness.

In practice, however, the three-year limit sometimes collides with a separate restriction on bureaucratic transfers. Philippine election law prohibits the transfer or reassignment

of civil servants during designated periods surrounding national elections. When an RDO reaches the three-year tenure limit during such a transfer-ban period, the BIR’s ability to rotate the officer on schedule is constrained, and the incumbent may consequently remain in the district beyond the statutory limit. Because the timing of these election-period bans is determined independently of an individual RDO’s performance, their intersection with officers’ three-year anniversaries generates the institutional variation in tenure that we exploit below.

Data

Our analysis combines four sources of data covering revenue performance, RDO assignments, rotation constraints, and local conditions. District fiscal records from the BIR’s Records Management Division provide our revenue outcomes, while archival personnel records from the same division allow us to reconstruct RDO careers across districts. We combine these assignment histories with election-period transfer bans to identify externally induced variation in tenure and supplement them with measures of local revenue conditions and political entrenchment. Together, these data yield an officer-district-year panel covering 115 revenue districts and 274 RDOs from 1999 through 2007. Summary statistics are reported in SI Section [A.1](#).

Revenue Collections

Our fiscal data consist of annual collection records for each of the BIR’s 115 revenue districts from 1999 through 2007, the period for which corresponding district fiscal records are available. The records report total collections and decompose them into three channels representing increasing levels of administrative intervention. *Voluntary payments* are self-assessed taxes remitted with returns, without prior enforcement action, and thus represent routine compliance in the Philippine self-assessment system ([Congress of the Philippines, 1997](#)).

Collections from assessments are deficiency taxes paid after a BIR audit determines that a taxpayer has underpaid. *Collections from delinquent accounts* are established but unpaid liabilities pursued through the tax code’s civil enforcement remedies (Congress of the Philippines, 1997).¹ This decomposition is available from 2002 through 2007. Voluntary payments account for 99.2 percent of district collections, compared with 0.6 percent from assessments and 0.1 percent from delinquent accounts. The latter therefore capture enforcement-intensive collection activity rather than quantitatively important sources of revenue.

We use total collections as our primary outcome and the three components to identify which administrative margin officer quality works through. The records also report each district’s annual collection goal, assigned by the national office from the Bureau-wide revenue target. Districts vary substantially in scale, with annual collections ranging from approximately P14.8 million to P58.6 billion; our empirical specifications account for these differences.

RDO Assignment Histories

We reconstruct RDO careers from the BIR’s archival RTAOs. Each order identifies the officers being reassigned, their origin and destination offices, and the effective date of each transfer; SI Section A.1 reproduces a facsimile of one such order. We use these records to construct an officer-district-year panel of RDO postings for the same period when fiscal records are available. The resulting panel contains 274 RDOs across 520 assignment spells in 115 revenue districts, where a spell denotes one continuous assignment of an officer to a district. The average spell lasts 2.53 years, and approximately 26 percent extend beyond the statutory three-year tenure limit.² Because officers commonly serve in multiple districts,

¹Deficiency assessments enter the delinquency inventory when a taxpayer fails to protest a final assessment within the statutory period or exhausts the protest process without payment. District offices maintain these accounts receivable and are responsible for enforcing their collection.

²In a small number of district-years, the assignment records identify more than one officer serving in the same district within the year, for example when an officer is replaced mid-year. We retain each officer-district-year spell as a separate observation.

these histories allow us to observe the same RDO under different local conditions and provide the basis for the measure of bureaucratic quality developed in the next section.

Tenure and Transfer Bans

The assignment orders record exact effective dates, allowing us to determine when each RDO reaches three years in a posting and therefore becomes subject to the statutory tenure limit. We match these three-year anniversary dates to election-period transfer bans imposed by the Commission on Elections. Such bans were in effect from January 2 to June 13, 2001; December 15, 2003 to June 9, 2004; and January 14 to June 13, 2007.³ For each officer-district spell, we identify whether the officer’s three-year anniversary falls within one of these windows. The intersection of predetermined tenure anniversaries with externally determined transfer bans provides the variation used below to identify the consequences of extending tenure.

Local Revenue Conditions and Political Entrenchment

Finally, we supplement the administrative records with measures of the local environment in which RDOs operate. We aggregate municipal-level measures of the potential revenue base, intergovernmental transfers, and local government expenditure to the revenue-district level and use them as time-varying covariates. To capture local political entrenchment, we use political-dynasty data compiled by the Ateneo Policy Center. For each province and election term, these data measure the share of locally elected positions held by politicians with at least one relative concurrently holding office in the same province (Mendoza et al., 2016; Querubin, 2016). We use this measure to test whether the returns to bureaucratic quality vary with the strength of entrenched local political families.

³Commission on Elections Resolutions No. 3322 (2000), No. 6420 (2003), and No. 7707 (2006).

Empirical Design

Our empirical analysis proceeds in two stages. We first construct a predetermined measure of bureaucratic quality from officers’ performance in prior postings and use it to test the portability, compliance, tenure-dependence, and political-entrenchment hypotheses (H1–H4). We then turn to our central hypothesis (H5), using election-period transfer bans to isolate exogenous extensions of tenure and estimate whether their effects vary with officer quality. Across specifications, the outcome is the natural logarithm of district revenue,⁴ and we include district fixed effects, year fixed effects, and a vector $\mathbf{X}_{dt}$ of time-varying district covariates: logged values of potential revenue, intergovernmental transfers, total local government expenditure, and the district’s revenue goal. District fixed effects absorb persistent differences across districts, while year fixed effects absorb common shocks. Standard errors are clustered by district throughout.

Measuring Bureaucratic Quality

The first empirical challenge is to distinguish bureaucratic quality from the conditions under which an officer happens to serve. A measure based directly on observed revenue would conflate officer performance with persistent differences in district revenue potential and common shocks. We therefore exploit repeated rotation to construct a measure of quality from an officer’s performance in prior postings, excluding the district currently served.

Let Y_{dt} denote logged revenue in district d in year t . We first benchmark revenue against district and year fixed effects:

$$Y_{dt} = \alpha_d + \lambda_t + u_{dt}, \tag{1}$$

where u_{dt} captures revenue performance relative to persistent district differences and common year shocks. To avoid mechanically incorporating the focal observation into its own

⁴We apply a $\log(x + 1)$ transformation throughout to accommodate zeros.

benchmark (Chetty, Friedman and Rockoff, 2014a; Kane and Staiger, 2008), we calculate leave-one-out residuals. For each officer-district-year observation i , we estimate Equation (1) excluding observation i and construct the out-of-sample residual:

$$\hat{u}_{dt} = Y_{dt} - \hat{Y}_{dt}^{(-i)}, \quad \hat{Y}_{dt}^{(-i)} = \hat{\alpha}_d^{(-i)} + \hat{\lambda}_t^{(-i)}. \quad (2)$$

We then summarize each officer's prior performance across other districts. Let $r(d, t)$ denote the RDO serving district d in year t . For each focal officer-district-year, we define:

$$\widehat{Quality}_{r,-d,t} = \frac{1}{N_{r,-d,t}} \sum_{\substack{(d',t'): r(d',t')=r \\ t' < t, d' \neq d}} \hat{u}_{d't'}, \quad (3)$$

where $N_{r,-d,t}$ is the number of qualifying prior observations. Two restrictions are central to the construction. Requiring $t' < t$ makes quality predetermined relative to the focal outcome, while requiring $d' \neq d$ ensures that it is identified entirely from the officer's performance elsewhere. Officers without a qualifying prior out-of-district posting are therefore excluded. For concision, we denote this measure $Quality_{rd}$ below. SI Section A.1 provides worked examples and reports its distribution; SI Section A.2 reports permutation tests and shows that quality estimated from the first half of an officer's career predicts quality estimated from the second.

Portability and Tenure Dependence (Testing H1 and H3)

We first test whether quality measured in prior postings predicts performance in subsequent assignments (H1) and whether those returns emerge with tenure (H3). For horizon $h \in \{0, 1, 2\}$, we estimate:

$$Y_{d,t+h} = \rho^{(h)} Quality_{rd} + \mathbf{X}'_{dt} \boldsymbol{\gamma}^{(h)} + \alpha_d^{(h)} + \lambda_t^{(h)} + \varepsilon_{dt}^{(h)}. \quad (4)$$

All right-hand-side variables are measured in year t , while $Y_{d,t+h}$ measures revenue contemporaneously and one and two years forward. The coefficients $\rho^{(h)}$ therefore trace how the predictive content of carried bureaucratic quality evolves over the course of an assignment. H1 predicts that prior quality predicts subsequent revenue. H3 makes the sharper dynamic prediction that this relationship is weak upon arrival and strengthens with tenure, such that $\rho^{(0)}$ is small relative to $\rho^{(1)}$ and $\rho^{(2)}$. We test this profile directly by reparameterizing the model so that the later-horizon coefficients enter as increments relative to the arrival-year coefficient. Because forward outcomes alter sample composition across horizons, we also estimate the specification on the balanced sample observed at all three horizons (SI Section A.3).

As a complementary test of portability, we examine what happens when a high-quality officer arrives in a district. We define a high-quality arrival as the assignment of an incoming RDO whose predetermined quality measure is at or above zero. Because these arrivals occur at staggered dates and treatment effects may be heterogeneous, we use stacked event panels rather than a conventional two-way fixed-effects event study (Callaway and Sant’Anna, 2021). For each arrival event e , we construct a window from two years before through three years after the assignment and compare the receiving district with districts that do not receive a high-quality officer within the same window:

$$Y_{ed\tau} = \sum_{\substack{k=-2 \\ k \neq -1}}^3 \beta_k (\text{Treated}_{ed} \times \mathbf{1}[\tau = k]) + \mathbf{Z}'_{ed\tau} \boldsymbol{\kappa} + \mu_{ed} + \nu_{e\tau} + \varepsilon_{ed\tau}, \quad (5)$$

where μ_{ed} and $\nu_{e\tau}$ denote event-by-district and event-by-event-time fixed effects. $\mathbf{Z}_{ed\tau}$ contains the same time-varying district controls used in Equation (4). The pre-arrival coefficients provide a test for differential trends, while the post-arrival coefficients trace the evolution of revenue following the arrival of a high-quality officer. We also collapse the post-arrival periods to obtain an average difference-in-differences estimate.

The Compliance Margin (Testing H2)

To test whether bureaucratic quality operates primarily through routine compliance rather than enforcement (H2), we re-estimate Equation (4) separately for the three components of district collections. The outcomes are logged voluntary remittances, collections from deficiency assessments, and recoveries of delinquent accounts. H2 predicts that the gains associated with higher officer quality are concentrated in voluntary remittances rather than the two enforcement-intensive channels.

Political Entrenchment (Testing H4)

We next test whether the returns to bureaucratic quality vary with local political entrenchment (H4). We augment the baseline specification with the provincial fat-dynasty share, the share of offices held by members of fat political dynasties within the province, and its interaction with officer quality:

$$\begin{aligned} Y_{d,t+h} = & \rho^{(h)} Quality_{rd} + \psi^{(h)} (Quality_{rd} \times Dynasty_{pt}) + \phi^{(h)} Dynasty_{pt} \\ & + \mathbf{X}'_{dt} \boldsymbol{\gamma}^{(h)} + \alpha_d^{(h)} + \lambda_t^{(h)} + \varepsilon_{dt}^{(h)}, \end{aligned} \tag{6}$$

where $Dynasty_{pt}$ denotes the share of local elected positions held by members of political dynasties in district d 's province p under the most recent election at or before year t . H4 predicts that the return to officer quality persists as dynastic entrenchment increases. Empirically, this implies that conditioning on dynastic entrenchment should leave $\rho^{(h)}$ substantively unchanged and that $\psi^{(h)}$ should not be systematically negative. A negative interaction would instead indicate that local political entrenchment attenuates the returns to bureaucratic quality.

Identifying Quality–Tenure Complementarity (Testing H5)

Our central empirical challenge is to determine whether additional tenure causally increases the returns to bureaucratic quality (H5). Realized tenure cannot answer this question directly. Officers who perform well may be retained longer, while local conditions may independently influence both rotation decisions and revenue. We therefore exploit the collision between the statutory three-year tenure limit and the election-period transfer bans described above.

Let $Overstay_{rdt}$ indicate that officer r remains in district d in a calendar year strictly after the year containing the officer’s three-year anniversary.⁵ Let $BanExposed_{rd}$ indicate that the officer’s three-year anniversary falls within an election-period transfer ban. Officers whose anniversaries fall inside these windows are more likely to remain beyond the statutory tenure limit because the BIR is temporarily constrained from transferring them.

We use $BanExposed_{rd}$ and its interaction with predetermined officer quality as instruments for $Overstay_{rdt}$ and its interaction with quality. The second-stage equation, for horizon $h \in \{0, 1, 2\}$, is:

$$Y_{d,t+h} = \theta_1^{(h)}(\widehat{Overstay_{rdt} \times Quality_{rd}}) + \theta_2^{(h)}\widehat{Overstay_{rdt}} + \theta_3^{(h)}Quality_{rd} + \mathbf{X}'_{dt}\boldsymbol{\gamma}^{(h)} + \alpha_d^{(h)} + \lambda_t^{(h)} + \varepsilon_{rdt}^{(h)}. \quad (7)$$

The coefficient of interest is $\theta_1^{(h)}$. It captures whether the revenue effect of an exogenously induced extension of tenure increases with the quality of the incumbent officer. H5 predicts $\theta_1^{(h)} > 0$. We also report the corresponding reduced form, regressing revenue directly on transfer-ban exposure, its interaction with officer quality, and the same covariates and fixed effects.

⁵We exclude the anniversary calendar year itself because annual revenue in that year combines months before and after the officer reaches the statutory limit. Spells for which the exact anniversary cannot be recovered are excluded.

Identification requires that the timing of an officer’s three-year anniversary relative to an election-period transfer ban affects district revenue only through the resulting extension of tenure. The design’s identifying variation is the intersection of two administratively independent clocks—the nationally fixed election calendar and an anniversary set by an assignment decision three years earlier—and identification never compares election years with other years, since year fixed effects absorb common election-year shocks. SI Section A.4 examines each assumption of the design in turn: the strength of the first stages, balance of predetermined officer quality across exposure, exclusion, monotonicity in light of anticipatory rotations, and the caveats that remain.

Results

We present the results in the order of the five hypotheses. We first establish the portability of bureaucratic quality and examine the compliance margin on which it operates, its emergence with tenure, and its relationship with local political entrenchment. We then turn to the central test of the argument: whether exogenously extended tenure generates larger returns under higher-quality officers.

The Portability of Bureaucratic Quality (H1)

Table 1 reports estimates of Equation (4). Column (1) shows that officer quality measured entirely from prior postings predicts revenue in subsequent assignments. A one-unit increase in RDO quality is associated with 11.1 percent higher total revenue one year after arrival ($\rho^{(1)} = 0.105$, $p < .01$) and 14.5 percent higher revenue two years after arrival ($\rho^{(2)} = 0.135$, $p < .01$). Because the quality measure uses only an officer’s prior performance in other districts, these estimates establish that differences in bureaucratic performance persist as officers move across assignments.

Table 1: Portable RDO Quality and District Revenue

	$\log(\text{Revenue} + 1)$			
	(1) Total	(2) Voluntary	(3) Assessment	(4) Delinquent
RDO Quality ($h = t$)	0.040 (0.042)	0.031 (0.045)	0.294 (0.316)	-0.044 (0.250)
RDO Quality ($h = t + 1$)	0.105*** (0.029)	0.105*** (0.029)	0.120 (0.293)	0.012 (0.246)
RDO Quality ($h = t + 2$)	0.135*** (0.037)	0.135*** (0.036)	0.309 (0.333)	-0.158 (0.289)
Controls	Yes	Yes	Yes	Yes
District FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	1,016	1,016	1,016	1,016
Adj. R^2	0.990	0.990	0.662	0.491

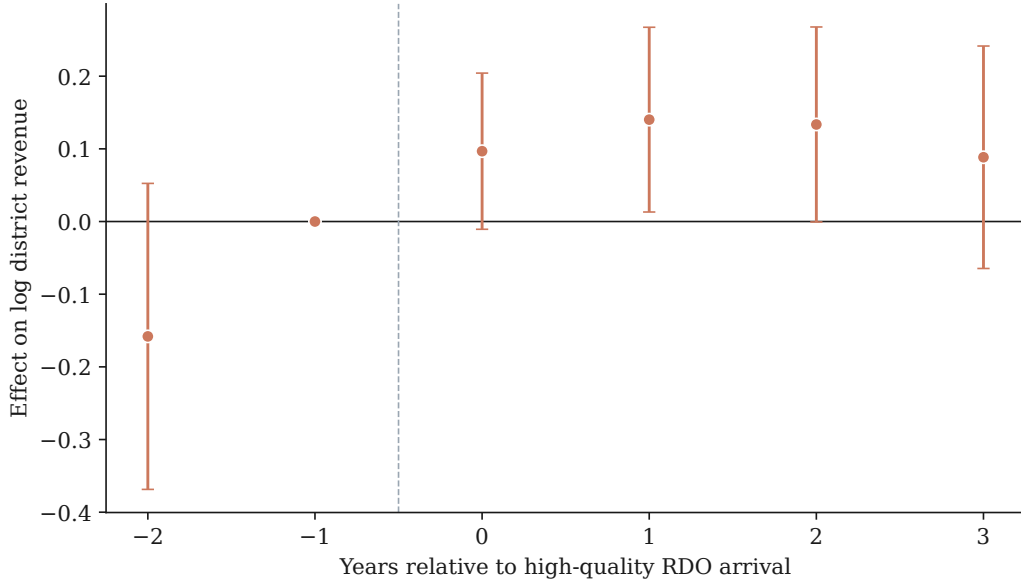
Note: Stacked-horizon OLS estimates of Equation (4), $h = 0, 1, 2$. The outcome is log revenue at $t + h$; columns decompose total collections into their administrative channels. Controls (logged potential revenue, intergovernmental transfers, total expenditure, and revenue goal) and fixed effects are interacted with horizon. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

The arrival of a high-quality officer provides a complementary test of this portability. Figure 1 reports the stacked event-study estimates from Equation (5). Revenue trajectories in treated and control districts are similar before the arrival of a high-quality officer, with no evidence of differential pre-trends. Revenue then rises progressively following the officer's arrival. Collapsing the post-arrival periods, districts receiving a high-quality officer collect approximately 16.3 percent more revenue than comparable districts ($\delta = 0.151$, $p = .024$).⁶

Together, these results support H1: bureaucratic quality is portable across assignments. The result is robust to estimating each horizon separately, winsorizing revenue at conventional thresholds, and alternative parameterizations and subsamples (SI Section A.3). It also does not appear to reflect the assignment of higher-quality officers to districts already on

⁶SI Section A.2 reports the full difference-in-differences estimates, including a coarser specification with calendar-year and region fixed effects in place of the event-by-district and event-by-time fixed effects ($\delta = 0.112$, $p = .042$) and the stacked estimate without time-varying controls, which is close to zero.

Figure 1: Event Study: Arrival of a High-Quality RDO



Note: The figure plots stacked event-study estimates of Equation (5) with 95 percent confidence intervals, normalized to the year before a high-quality RDO's arrival. Full difference-in-differences estimates are reported in SI Section A.2.

favorable revenue trajectories: incoming officer quality does not predict destination-district revenue before arrival, whether measured in the preceding year or across all prior observed years (SI Section A.4).

The Compliance Margin of Bureaucratic Quality (H2)

Columns (2) through (4) of Table 1 show where the revenue gains associated with officer quality originate. The pattern for voluntary remittances closely mirrors that for total revenue: the coefficient is small and statistically insignificant upon arrival, then rises to 0.105 one year later and 0.135 after two years (both $p < .01$). By contrast, officer quality has no detectable relationship with either assessment-based or delinquent collections at any horizon.

These results support H2. The revenue gains associated with higher-quality officers operate through taxes remitted voluntarily with returns rather than through enforcement-intensive collections. This pattern is consistent with accounts of tax compliance that em-

phasize the quality and predictability of routine administration alongside deterrence (Levi, 1988; Luttmer and Singhal, 2014; Slemrod, 2019). Bureaucratic quality therefore appears to improve the routine administration of compliance rather than the intensity with which officers assess deficiencies or pursue delinquent accounts.

The Returns to Quality Emerge with Tenure (H3)

The horizon profile in Table 1 supports H3. Upon arrival in a new district, officer quality has no detectable relationship with revenue ($\rho^{(0)} = 0.040$, $p > .10$). The relationship emerges with tenure, rising to 0.105 after one year and 0.135 after two years. The reparameterized specification confirms that the increments relative to the arrival-year coefficient are positive and increase across horizons, while restricting the analysis to district-years observed at all three horizons yields a similar profile (SI Section A.3).

This pattern is consistent with the complementarity between bureaucratic quality and local experience developed in the theory. Administrative competence does not translate immediately into higher collections when an officer enters a new assignment. Its returns emerge as the officer acquires knowledge of the district, develops administrative routines, and gains experience with local staff and taxpayers. Bureaucratic quality is therefore portable across assignments, but its productive value increases with time in the post.

Bureaucratic Quality Persists under Political Entrenchment (H4)

Table 2 examines whether local political entrenchment attenuates the returns to bureaucratic quality. Conditioning on the provincial fat-dynasty share leaves the quality coefficients virtually unchanged from the baseline: $\rho^{(1)} = 0.102$ and $\rho^{(2)} = 0.137$ (both $p < .01$). The interaction between officer quality and dynastic entrenchment is also statistically indistinguishable from zero at every horizon. We therefore find no evidence that the returns to bureaucratic quality diminish as dynastic entrenchment increases.

These results support H4 and help rule out an alternative explanation for the portability result. If measured officer quality primarily reflected a history of assignments to more favorable political environments, its relationship with revenue should weaken once we account for dynastic entrenchment or in places where entrenched political families are more prevalent. Neither pattern appears in the data. The returns to bureaucratic quality persist even in political environments where entrenched local actors may pose greater constraints on administrative autonomy (Mendoza et al., 2016; Querubin, 2016).

Extended Tenure Raises the Returns to Quality (H5)

We now turn to the central hypothesis: whether additional tenure causally increases the returns to bureaucratic quality. Consistent with complementarity, the relationship between officer quality and revenue is concentrated among officers who remain beyond the statutory three-year tenure limit (SI Section A.3). Because these longer assignments may themselves reflect officer performance or local conditions, however, we turn to the election-period transfer bans for exogenous variation in tenure. Table 3 reports the instrumental-variables estimates of Equation (7).

The first stages show that transfer-ban exposure substantially increases the probability that an officer remains beyond the tenure limit. The joint F -statistics range from 34.5 to 44.8 for overstay and are 79.6 and 21.8 for the interaction between overstay and quality at the one- and two-year horizons, well beyond conventional weak-instrument thresholds (Staiger and Stock, 1997).⁷

The reduced form provides the clearest evidence for H5. The interaction between transfer-ban exposure and officer quality is positive at every horizon: 0.292 contemporaneously ($p < .01$), 0.139 after one year ($p < .10$), and 0.102 after two years ($p < .05$). By contrast, transfer-ban exposure itself has no detectable effect at any horizon. Thus, ex-

⁷The interaction first stage is weaker at the contemporaneous horizon ($F = 4.08$). We therefore rely on the reduced form rather than the 2SLS estimate for inference at that horizon.

Table 2: Officer Quality and Local Dynastic Entrenchment

	$\log(\text{Revenue} + 1)$		
	(1)	(2)	(3)
Dynasty ($h = t$)	-0.055 (0.034)	-0.055 (0.034)	-0.055 (0.035)
Dynasty ($h = t + 1$)	-0.007 (0.043)	-0.012 (0.042)	-0.013 (0.042)
Dynasty ($h = t + 2$)	0.048 (0.057)	0.044 (0.054)	0.045 (0.054)
RDO Quality ($h = t$)		0.035 (0.050)	0.043 (0.055)
RDO Quality ($h = t + 1$)		0.102*** (0.029)	0.109*** (0.036)
RDO Quality ($h = t + 2$)		0.137*** (0.044)	0.144*** (0.049)
Dynasty $\times$ RDO Quality ($h = t$)			0.043 (0.086)
Dynasty $\times$ RDO Quality ($h = t + 1$)			0.039 (0.083)
Dynasty $\times$ RDO Quality ($h = t + 2$)			0.078 (0.095)
Controls	Yes	Yes	Yes
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	817	817	817
Adj. R ²	0.987	0.987	0.987

Note: Stacked-horizon OLS estimates of Equation (6), $h = 0, 1, 2$. The outcome is log revenue at $t + h$. Dynasty is the share of locally elected positions in the district's province held by fat dynastic politicians. Controls (logged potential revenue, intergovernmental transfers, total expenditure, and revenue goal) and fixed effects are interacted with horizon. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

Table 3: Extended Tenure and the Returns to Quality: 2SLS Estimates

	$\log(\text{Revenue} + 1)$		
	$h = t$	$h = t + 1$	$h = t + 2$
<i>Panel A: Second stage</i>			
Overstay $\times$ RDO Quality	0.547* (0.280)	0.277* (0.139)	0.151 (0.186)
Overstay	-0.042 (0.046)	-0.001 (0.044)	-0.016 (0.064)
RDO Quality	-0.118 (0.108)	0.011 (0.054)	0.021 (0.048)
<i>Panel B: First stage (Overstay)</i>			
Ban Exposed $\times$ RDO Quality	-1.720*** (0.283)	-1.621*** (0.261)	-1.479*** (0.215)
Ban Exposed	0.417*** (0.072)	0.232*** (0.044)	0.185*** (0.057)
RDO Quality	0.267 (0.196)	0.256 (0.204)	0.108 (0.164)
Weak-instrument test (joint F)	34.54	35.41	44.80
<i>Panel C: First stage (Overstay $\times$ RDO Quality)</i>			
Ban Exposed $\times$ RDO Quality	0.403*** (0.143)	0.498*** (0.096)	0.514*** (0.081)
Ban Exposed	0.041 (0.028)	0.084*** (0.009)	0.066*** (0.016)
RDO Quality	0.183* (0.104)	0.106 (0.069)	0.090 (0.061)
Weak-instrument test (joint F)	4.08	79.60	21.83
<i>Panel D: Reduced form</i>			
Ban Exposed $\times$ RDO Quality	0.292*** (0.101)	0.139* (0.075)	0.102** (0.043)
Ban Exposed	0.005 (0.038)	0.023 (0.020)	0.007 (0.024)
RDO Quality	-0.029 (0.052)	0.040 (0.054)	0.033 (0.032)
Controls	Yes	Yes	Yes
District FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	331	249	199

Note: Stacked-horizon 2SLS estimates of Equation (7), $h = 0, 1, 2$. The outcome is log revenue at $t + h$. Panel A reports the second stage, Panels B and C the two first stages, and Panel D the reduced form. Controls (logged potential revenue, intergovernmental transfers, total expenditure, and revenue goal) and fixed effects are interacted with horizon. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

ternally induced extensions of tenure increase revenue disproportionately when the officer retained in the district is of higher quality.

The 2SLS estimates yield the same pattern. At the one-year horizon, the coefficient on instrumented overstay interacted with officer quality is 0.277 ($p < .10$), implying that a one-unit increase in officer quality increases the revenue effect of an induced overstay by approximately 31.9 percent. The interaction remains positive after two years, although it is estimated less precisely. Ban exposure is also unrelated to the incumbent officer's predetermined quality, and a broader instrument that additionally uses forced-stay periods following changes in BIR leadership produces the same directional pattern (SI Section A.4).

Together, these results support H5. Exogenously extending tenure generates larger revenue gains under higher-quality officers. Bureaucratic quality and tenure are therefore complements: the returns to administrative talent increase when capable officials remain in place long enough to accumulate and use local experience.

Conclusion

This article asked whether limiting bureaucratic tenure through rotation reduces the returns to bureaucratic quality. Evidence from the Philippine tax administration shows that it does. Officer quality measured from prior postings predicts revenue in subsequent assignments, but its returns are not immediate: they emerge with tenure and operate primarily through voluntary remittances rather than enforcement-intensive collections. These returns also persist in areas with greater dynastic entrenchment. Most importantly, when election-period transfer bans exogenously extend an officer's tenure beyond the statutory limit, revenue increases disproportionately under higher-quality officers. Together, these findings show that bureaucratic quality and tenure are complements in the production of fiscal capacity.

This complementarity sharpens the trade-off inherent in bureaucratic rotation. Rotation can protect the state from the risks of prolonged local embeddedness, but a uniform

tenure limit also truncates the returns to locally accumulated experience, with the largest costs arising when capable officials are reassigned. Our results therefore do not imply that rotation should be abandoned. Instead, the findings caution against treating tenure limits as administratively costless or applying them without regard to differences in bureaucratic performance. Personnel systems may be able to preserve the safeguards provided by rotation while allowing greater flexibility in retaining high-performing officials, particularly where continued tenure can be paired with stronger monitoring and oversight.

More broadly, the findings qualify an increasingly influential view of state capacity as partly embodied in individual bureaucrats. Administrative competence can travel with officials across assignments, but its productive value depends on knowledge acquired in the places where they serve. The revenue decomposition helps illuminate this complementarity. Higher-quality officers generate additional revenue primarily through voluntary remittances, rather than deficiency assessments or delinquent collections, suggesting that their advantage lies in the routine administration of compliance rather than simply more intensive enforcement. Such capacity cannot be redeployed instantaneously: it must be combined with knowledge of the local tax base, administrative routines, staff, and taxpayers before its returns are fully realized. Personnel systems therefore shape state capacity not only by determining which officials occupy particular posts, but also by determining whether they remain there long enough to become effective.

Our analysis cannot identify the point at which the administrative returns to continued tenure are outweighed by greater risks of capture. Future research could directly examine that trade-off by linking assignment histories to measures of corruption and enforcement, investigate which managerial practices distinguish high-performing officials, and compare rotation regimes across bureaucracies with different opportunities for local learning and capture. The broader implication is that bureaucratic personnel systems face a problem of timing as well as selection: recruiting and assigning capable officials matters, but so does giving their capabilities sufficient time to become productive.

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Online Appendix for:
“Roving Tax Bureaucrats:
Bureaucratic Quality, Tenure, and the Costs of Rotation”

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A.1 Data Appendix

This section provides additional information on the construction and structure of the data used in the analysis. We first summarize the estimation panel and RDO assignment histories, then illustrate the construction of the carried-quality measure with individual officer careers, and finally report the distribution of estimated officer quality.

A.1.1 Sources and Summary Statistics

We construct the officer panel from the BIR’s archival Revenue Travel Assignment Orders, which record officer names, origin and destination offices, and effective transfer dates. We identify the officers serving each district-year from the year-start, year-end, and full-year officer fields, retain each officer-district-year spell as a separate observation, and merge these records with the district fiscal data described in the paper. Table A1 reports summary statistics for the district-year estimation panel. Table A2 summarizes the underlying assignment structure, where a spell denotes a continuous assignment of an officer to a district and an overstay denotes a spell exceeding the statutory three-year tenure limit.

Table A1: Summary Statistics

	N	Mean	SD	Min	Max
Carried RDO quality	503	0.005	0.280	-0.553	2.079
log Total revenue	503	7.000	1.261	3.246	10.750
log Voluntary collections	388	6.973	1.240	3.352	10.750
log Assessment collections	388	1.694	1.449	0.000	5.444
log Delinquent collections	388	0.904	0.858	0.000	4.192
log Potential revenue	388	6.706	1.301	2.519	10.503
log Intergovernmental transfers	361	6.683	0.738	3.689	8.613
log Total expenditure	361	21.020	0.771	18.064	23.006
log Revenue goal	388	9.014	1.288	6.985	11.256

Note: District-year panel underlying the baseline estimation sample (district-years linked to an officer with an estimable carried-quality measure). Collections and fiscal covariates are $\log(x + 1)$ -transformed. Carried RDO quality is averaged across officers within a district-year.

A.1.2 The Assignment Instrument

RTAOs are internal personnel issuances of the Commissioner and are not systematically published. Figures A1 and A2 reproduce, in full, one such order, RTAO No. 38-2013, to illustrate the standard form of the instrument: invoking the “exigencies of the revenue service,” the order lists each affected officer by name together with the origin and destination of the reassignment, and moves a batch of Revenue District Officers simultaneously—the reshuffle waves described in the paper. The officer listed fourth, F.R. Aninag, is the officer whose career illustrates the quality construction in Table A3: our panel records his rotation into District 43 in 2007, and this 2013 order relieves him from RDO No. 43-A (East Pasig), six

Table A2: Assignment Structure of the Officer Panel

Number of districts	115
Number of officers	274
Number of assignment spells	520
Average spell length (years)	2.53
Share of overstays	0.26

Note: A spell is one continuous assignment of an officer to a district. An overstay is a spell exceeding the statutory three-year rotation limit.

years later. For an order issued within the sample period and documented in public records, see RTAO No. 25-2002 (May 7, 2002), which reassigned a named BIR official between revenue regions on the same statutory basis and is described in *Republic v. Pacheo*, G.R. No. 178021 (Supreme Court of the Philippines, January 25, 2012).¹

A.1.3 Worked Examples of the Quality Construction

Table A3 illustrates the leave-one-out quality construction for three officers. FR Aninag initially has no carried-quality measure because all prior observations come from the same district. Upon reassignment to District 21, carried quality is calculated from the officer's earlier residual performance in District 1; upon reassignment to District 43, the measure incorporates prior performance in both districts. DW Quirino follows the same logic across two districts. By contrast, ET Cosico never rotates and therefore never accumulates an out-of-district performance history. Carried quality remains undefined, and the officer does not enter the estimation sample. The measure is thus identified entirely from officers observed across multiple districts.

A.1.4 Distribution of Carried Quality

Figure A3 plots carried quality across the officer-district spells in the estimation sample. The distribution is centered near zero by construction, since the underlying residuals net out district and year effects, but exhibits substantial dispersion across officers.

¹The decision is available at lawphil.net. The replication package archives the RTAO facsimile and related documentary evidence.

Figure A1: Facsimile of a Revenue Travel Assignment Order (pages 1-6)

BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION RECEIVED 11 September 2013		
REVENUE TRAVEL ASSIGNMENT ORDER NO. 38-2013		
The exigencies of the revenue service so requiring, the following personnel are hereby relieved of their present duties and directed to report to their new assignments as indicated hereunder:		
NAME	FROM	TO
1. GERRY O. DUMAYAS CRO IV	Revenue District Officer RDO 47 East Makati	Revenue District Officer RDO 33 Intramuros-Ermita-Makati
2. MARIDUR V. ROSARIO CRO IV	Revenue District Officer RDO 44 Taguig-Pateros	Revenue District Officer RDO 50 South Makati
3. ISABEL A. PAULINO CRO IV	Revenue District Officer RDO 41 Mandaluyong	Revenue District Officer RDO 47 East Makati
4. FLORANTE R. ANINAG CRO IV	Revenue District Officer RDO 43-A East Pasig	Revenue District Officer RDO 39 South Quezon City
5. EDGAR S. TOLENTINO CRO IV	Revenue District Officer RDO 40 Cubao	Revenue District Officer RDO 38 North Quezon City
6. JOSEPHINE S. VIRTUCIO CRO IV	Revenue District Officer RDO 33 Intramuros-Ermita-Makati	Revenue District Officer RDO 43 A East Pasig
7. CORAZON M. MONTES CRO III	OIC - Revenue District Officer RDO 51 Pasay City	OIC - Revenue District Officer RDO 41 Mandaluyong
8. ROSEMARIE R. RAGASA CRO IV	Revenue District Officer RDO 29 San Nicolas-Tondo	Revenue District Officer RDO 40 Cubao
9. RAUL VICENTE L. RECTO CRO IV	Revenue District Officer RDO 48 West Makati	Revenue District Officer RDO 49 North Makati
10. ROSITA U. MENIANO CRO III	Assistant Chief Regular, LT Audit Division I Large Taxpayer Service	OIC - Revenue District Officer RDO 52 Paniquian City
11. RODOLFO G. MENDOZA CRO III	OIC - Revenue District Officer RDO 25-A Plaridel, Bulacan	OIC - Revenue District Officer RDO 44 Taguig-Pateros
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION		
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12. WILFREDO V. PILAPIL CRO III	OIC - Revenue District Officer RDO 81 Cebu City	OIC - Revenue District Officer RDO 48 West Makati
13. RAMER D. NARVAEZ CRO IV	Revenue District Officer RDO 38 North Quezon City	Revenue District Officer RDO 57 San Pedro, Laguna
14. RHODORA V. LAGNADA CRO III	Assistant Chief, LTDO Cebu Large Taxpayer Service	OIC - Revenue District Officer RDO 80 Mandaue City
15. EDITHA A. CALIPUSAN CRO III	Asst. Revenue District Officer RDO 43 A - East Pasig	OIC - Revenue District Officer RDO 54-A, Trece Martnez City, South Cavite
16. SHIRLEY O. CALAPATA CRO III	Asst. Revenue District Officer RDO 39 South Quezon City	OIC - Revenue District Officer RDO 51 Pasay City
17. EMILIA C. COMBES CRO III	Assistant Chief, LTDO Makati Large Taxpayer Service	OIC - Revenue District Officer RDO 43-B West Pasig
18. OLIVIA T. AMANSE CRO III	Asst. Revenue District Officer RDO 41 Mandaluyong	OIC - Revenue District Officer RDO 45 Marikina
19. CHRISTINA C. BARROGA CRO III	Revenue District Officer RDO 44 Taguig-Pateros	OIC - Revenue District Officer RDO 53-B Marikina City
20. LUIS A. ALBERTO JR. CRO III	OIC - Revenue District Officer RDO 43-B West Pasig	OIC - Revenue District Officer RDO 74 Iloilo City
21. RICARDO B. ESPIRITU CRO IV	Revenue District Officer RDO 50 South Makati	Revenue District Officer RDO 132 East Davao City
22. EVANGELINE S. ABANILLA CRO IV	Revenue District Officer RDO 80 Mandaue City	Revenue District Officer RDO 81 Cebu City
23. ARMANDO F. TRIA CRO IV	Revenue District Officer RDO 46 Cainta-Taytay	Revenue District Officer RDO 32 Guapo-Sampaloc-San Miguel
24. TEODORO R. HUELVA CRO IV	Revenue District Officer RDO 31 Sta. Cruz	Revenue District Officer RDO 98 Cagayan de Oro City
25. PETRONILIO C. FERNANDO CRO IV	Revenue District Officer RDO 34 Paco-Pandacan-Sta. Ana	Revenue District Officer RDO 29 San Nicolas-Tondo
26. DANILO G. MENDOZA CRO IV	Technical Assistant Taxpayer Assistance Service	Revenue District Officer RDO 113 West Davao City
27. MAXIMO T. CEBREJUS JR. CRO III	Asst. Revenue District Officer RDO 38 North Quezon City	OIC - Revenue District Officer RDO 31 Sta. Cruz
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28. CARLOS S. SALAZAR CRO IV	Revenue District Officer RDO 56 Calamba, Laguna	Revenue District Officer RDO 54-B, Rosario, North Cavite
29. ALFREDO P. SANTOS CRO IV	Revenue District Officer RDO 18 Olongapo City	Revenue District Officer RDO 24 Valenzuela
30. CONSUELO O. DE ASIS CRO III	Asst. Revenue District Officer RDO 38 North Quezon City	OIC - Revenue District Officer RDO 21-B, South Pampanga
31. REBE D. DETABLAN CRO III	OIC - Revenue District Officer RDO 59 Lipi City	OIC - Revenue District Officer RDO 27 Calocan City
32. IMELDA D. CEBUANA CRO IV	Revenue District Officer RDO 113 - West Davao City	Revenue District Officer RDO 77 Bacolod City
33. HONORATA S. AGUILAR CRO IV	Revenue District Officer RDO 54-A, Trece Martnez City, South Cavite	Revenue District Officer RDO 56 Calamba, Laguna
34. VIRGILIO R. CEMBRANO CRO IV	Chief, LT Collection and Enforcement Division Large Taxpayers Service	Revenue District Officer RDO 38 Binondo
35. SULPICIO M. ADAPON CRO IV	Revenue District Officer RDO 53B - Marikina City	Revenue District Officer RDO 25 A, Plaridel, Bulacan
36. SOCORRO R. LAFUENTE CRO IV	Revenue District Officer RDO 55 Naga City	Revenue District Officer RDO 47 San Juan
37. ROMEO E. NARANJO CRO IV	Revenue District Officer RDO 84 Tagbilaran City	Revenue District Officer RDO 21 A, North Pampanga
38. TEOGENES T. ABRIGO JR. CRO IV	Revenue District Officer RDO 25B - Marikina, Bulacan	Revenue District Officer RDO 8 Baguio City
39. AMADOR P. DUCUT CRO III	OIC - Revenue District Officer RDO 21B - South Pampanga	OIC - Revenue District Officer RDO 3 San Fernando, La Union
40. NELIA B. DEMALATA CRO IV	Revenue District Officer RDO 74 Iloilo City	Revenue District Officer RDO 112 Taguig, Davao del Norte
41. MA. NIMFA A. DE VILLA CRO III	Asst. Revenue District Officer RDO 42 San Juan	OIC - Revenue District Officer RDO 83 A, Las Pinas City
42. JOSEPH M. CATAPIA CRO IV	Technical Assistant Taxpayer Assistance Service	Revenue District Officer RDO 46, Cainta-Taytay
43. RENATO M. MOLINA CRO IV	Revenue District Officer RDO 24 Valenzuela	Revenue District Officer RDO 4 Calasiao, West Pangasinan
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION		
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44. MELANIE R. SORIANO CRO III	OIC - Revenue District Officer RDO 1 - Laoag City	OIC - Revenue District Officer RDO 58 Batangas City
45. ERLINDA V. VICTORINO CRO III	OIC - Revenue District Officer RDO 3, San Fernando, La Union	OIC - Revenue District Officer RDO 59 Lipa City
46. ALBINO M. GALANZA CRO III	Revenue District Officer RDO 27 Calocan City	Revenue District Officer RDO 54, Paco-Pandacan-Sta. Ana
47. SIMPLICIO V. CABANTAC, JR. CRO III	Asst. Revenue District Officer RDO 31 - Sta. Cruz	OIC - Revenue District Officer RDO 1 Laoag City
48. LILVIC M. GATDULA CRO IV	Revenue District Officer RDO 77 Bacolod City	Revenue District Officer RDO 62 Cebu City South
49. LORNA S. TOBIAS CRO IV	Revenue District Officer RDO 30 Binondo	Revenue District Officer RDO 26, Malabon-Navotas
50. CAROLINA A. CARCILLAS CRO III	Asst. Revenue District Officer RDO 80 Mandaue City	OIC - Revenue District Officer RDO 79 Dumaguete City
51. LEONOR R. RUZOL CRO IV	Revenue District Officer RDO 36 Puerto Princesa	Revenue District Officer RDO 60 Lucena City
52. IRENE A. GOZE CRO IV	Revenue District Officer RDO 8 La Trinidad, Benguet	Revenue District Officer RDO 18, Olongapo City
53. CESAR R. BALANGATAN CRO IV	Revenue District Officer RDO 88, Tacloban City	Revenue District Officer RDO 67, Legaspi City
54. VENERANDO V. HOMEZ CRO III	OIC - Revenue District Officer RDO 108, Kidapawan, Northern Cotabato	OIC - Revenue District Officer RDO 110 Gen. Santos City
55. QUIRINO A. RAMOS, JR. CRO IV	Revenue District Officer RDO 5, Alaminos, West Pangasinan	Revenue District Officer RDO 25-B, Marikina, Bulacan
56. CESAR CHARLIE C. LIM CRO III	Technical Assistant RR 6 - Manila	OIC - Revenue District Officer RDO 65, Naga City
57. BAGRO S. SARANSAMUN CRO IV	Revenue District Officer RDO 111, Koronadal, Southern Cotabato	Revenue District Officer RDO 103- Butuan City
58. CRESENCIO A. AGAD CRO IV	Revenue District Officer RDO 79 Dumaguete City	Revenue District Officer RDO 93A Zamboanga City
59. ROSALINA F. LEGASPI CRO III	OIC - Revenue District Officer RDO 21A - North Pampanga	OIC - Revenue District Officer RDO 23-B, South Nueva Ecija
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION		
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60. JUDITH G. PACANA CRO IV	Revenue District Officer RDO 101 Iligan City	Revenue District Officer RDO 108, Kidapawan, Northern Cotabato
61. FELY S. SIMON CRO III	OIC - Revenue District Officer RDO 8, Baguio City	OIC - Revenue District Officer RDO 17A, Tarlac City, Tarlac
62. MARIZA R. UY CRO III	OIC - Revenue District Officer RDO 53A, Las Pinas City	OIC - Revenue District Officer RDO 13, Tuguegarao, Cagayan
63. SALVADOR VICTORIO R. LASALA CRO III	Revenue District Officer RDO 63 Calapan, Or. Mindoro	OIC - Revenue District Officer RDO 15, Iligan, Isabela
64. MANUEL J. TRIAS JR. CRO IV	OIC - Revenue District Officer RDO 112, Taguig, Davao del Norte	OIC - Revenue District Officer RDO 84, Tagbilaran City
65. REY ROBERTO Y. MANALLI CRO III	OIC - Revenue District Officer RDO 19, Subic Bay Free Port Zone	OIC - Revenue District Officer RDO 20, Balanga, Bataan
66. CHRISTINE M. CARDONA CRO IV	Revenue District Officer RDO 5, Calasiao, West Pangasinan	Revenue District Officer RDO 9, La Trinidad, Benguet
67. MYRNA L. BERNARDO CRO III	OIC - Revenue District Officer RDO 99, Malaybalay, Bukidnon	OIC - Revenue District Officer RDO 83 Talayay, Cebu
68. MARIA THELMA F. PULHIN CRO III	OIC - Revenue District Officer RDO 68 Sorsogon, Sorsogon	OIC - Revenue District Officer RDO 54, Daet, Camasiner Norte
69. NERISSA C. AGRAAM CRO IV	OIC - Revenue District Officer RDO 15, Iligan, Isabela	OIC - Revenue District Officer RDO 55, San Pablo City
70. MERLYN DV. VICENTE CRO IV	Revenue District Officer RDO 93A, Zamboanga City	Revenue District Officer RDO 99, Malaybalay, Bukidnon
71. YOLANDA B. FERRER CRO IV	Revenue District Officer RDO 60 Lucena City	Revenue District Officer RDO 2 Vigan, Ilocos Sur
72. RICARDO J. OSORIO CRO III	OIC - Revenue District Officer RDO 71, Kalibo, Aklan	OIC - Revenue District Officer RDO 88, Tacloban City
73. JOSE LOURDES C. TANG CRO III	OIC - Revenue District Officer RDO 105 Surigao City	OIC - Revenue District Officer RDO 115 Digos, Davao del Sur
74. SAMER R. MUTI CRO IV	Revenue District Officer RDO 103 Butuan City	Revenue District Officer RDO 111 Koronadal, Southern Cotabato
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75. LORDEL C. MONTECLARO CRO IV	Revenue District Officer RDO 114 Mati, Davao Or.	Revenue District Officer RDO 101 Iligan City
76. MUSLIMEN L. MACA-AGIR CRO IV	Revenue District Officer RDO 107 Cotabato City	Revenue District Officer RDO 100 Ozamis City
77. ARIEL M. CALABIA CRO III	OIC - Revenue District Officer RDO 67 Legaspi City	OIC - Revenue District Officer RDO 36 Puerto Princesa
78. NASROLLAH B. CONDING ATTY. IV	OIC - Revenue District Officer RDO 92 Pagadian City	OIC - Revenue District Officer RDO 6 Urdaneta, East Pangasinan
79. EMIR V. ABUTAZIL CRO IV	Technical Assistant Taxpayer Assistance Service	Revenue District Officer RDO 5 Alaminos, West Pangasinan
80. EDUARDO T. OBERA CRO IV	Revenue District Officer RDO 85 Calatagan, No. Samar	Revenue District Officer RDO 89 Ormoc City
81. ERALIN B. DE ARO CRO IV	Revenue District Officer RDO 78 Zamanga, Iloilo	Revenue District Officer RDO 11 Kalibo, Aklan
82. AMANODING D. ESMAIL CRO IV	Revenue District Officer RDO 106 Tandag, Surigao del Sur	Revenue District Officer RDO 107 Cotabato City
83. GLEDONIO B. TEOPE, JR. CRO III	OIC - Revenue District Officer RDO 97 Gingoog City	OIC - Revenue District Officer RDO 91 Dipolog City
84. SATAR T. LAQUINDAB CRO IV	Revenue District Officer RDO 104 Bayugan, Agusan del Sur	Revenue District Officer RDO 78 Binalbagan, Negros Occ.
85. BENEDICTO BACOD CRO III	Asst. Revenue District Officer RDO 69 Lipa City	OIC - Revenue District Officer RDO 76 Victoria, Negros Occ.
86. MAHINARDO G. MAILIG CRO IV	Technical Assistant Taxpayer Assistance Service	Revenue District Officer RDO 72 Roxas City
87. LOTIE D. BLANDO CRO IV	Core Group Expert Team Project Mgt. & Implementation Service	Revenue District Officer RDO 23A - North Nueva Ecija
88. BENJAMIN B. BABOR CRO III	Technical Assistant Taxpayer Assistance Service	OIC - Revenue District Officer RDO 75 Zamanga, Iloilo
89. ROGELIO C. DIZON CRO III	OIC - Asst. Revenue District Officer RDO 9 La Trinidad, Benguet	OIC - Revenue District Officer RDO 63 Calapan, Or. Mindoro
90. HERMA G. ESCUDERO CRO IV	Revenue District Officer RDO 115 Digos, Davao del Sur	Revenue District Officer RDO 114 Mati, Davao Or.
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION		

Note: RTAO No. 38-2013 (Bureau of Internal Revenue, received September 11, 2013). The order relieves the listed personnel of their present duties and directs them to their new assignments, recording each officer's name, origin office, and destination office.

Figure A2: Facsimile of a Revenue Travel Assignment Order (pages 7–10)

91. FRANKLIN C. LADARES CRO IV	Revenue District Officer RDO 110 General Santos City	Revenue District Officer RDO 92 Pagadian City
92. ROBERT S. BUCOY CRO III	OIC – Revenue District Officer RDO 20 Balanga, Bataan	OIC – Revenue District Officer RDO 14 Bayombong, Nueva Vizcaya
93. NOEL B. GONZALES CRO IV	Technical Assistant RR 19 Davao City	Revenue District Officer RDO 105 Surigao City
94. URSULA V. EQUINO CRO IV	Revenue District Officer RDO 73 San Jose, Antique	Revenue District Officer RDO 104, Bayugan, Agusan del Sur
95. MA. TERESA NOEMI PIZON CRO IV	Revenue District Officer RDO 69 Virac, Catanduanes	Revenue District Officer RDO 68 Sonogon, Sonogon
96. REY ANTHONY O. GELI CRO III	Asst. Revenue District Officer RDO 258, Maricao, Bulacan	OIC – Revenue District Officer RDO 19 Subic Bay Free Port Zone
97. MA. VICTORIA G. REINANTE CRO III	Asst. Revenue District Officer RDO 40 Cubao	OIC – Revenue District Officer RDO 178, Paniqui, Tarlac
98. GIL TABANDA CRO IV	Revenue District Officer RDO 72 Roxas City	Revenue District Officer RDO 90 Maasin, Southern Leyte
99. CONRADO P. TANGKIA CRO IV	Revenue District Officer RDO 35 Romblon	Revenue District Officer RDO 87 Catbalogan, Western Samar
100. CONRADO D. SORIANO CRO IV	Technical Assistant Taxpayer Assistance Service	Revenue District Officer RDO 73, San Jose, Antique
101. LEIDA C. BUSCAINO CRO IV	Revenue District Officer RDO 55 San Pablo City	Revenue District Officer RDO 86 Iriga City
102. AMINODING B. MACARAMPAT CRO III	OIC – Revenue District Officer RDO 102 Marawi City	OIC – Revenue District Officer RDO 109 Tacurong, Sultan Kudarat
103. MONIB M. DIMAKUTA CRO IV	Revenue District Officer RDO 938 Zamboanga Sibugay	Revenue District Officer RDO 105 Tandag, Surigao del Sur
104. ROMEO A. SUAREZ CRO III	Technical Assistant RR 4 - Pampanga	OIC – Revenue District Officer RDO 81 Gumaca, Quezon
105. ROSALINDA D. CABIDOG CRO III	Asst. Revenue District Officer RDO 85 Cataman, No. Samar	OIC – Revenue District Officer RDO 37 San Jose, Occ. Mindoro
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION SEP 11 2013		

106. GUDILLA S. VALLACER CRO III	Asst. Revenue District Officer RDO 105 Surigao City	OIC – Revenue District Officer RDO 97 Gingoog City
107. JOSEPHINE B. CATAMCO CRO III	Asst. Revenue District Officer RDO 86 Borongan, Eastern Samar	OIC – Revenue District Officer RDO 62 Boac, Marinduque
108. JESUSA B. CABELLO CRO III	Asst. Revenue District Officer RDO 88 Tacloban City	OIC – Revenue District Officer RDO 86 Borongan, Eastern Samar
109. ERNESTO I. MANGABAT CRO III	Asst. Revenue District Officer RDO 3 San Fernando, La Union	OIC – Revenue District Officer RDO 70 Masbate, Masbate
110. BENJAMIN B. VIRTUCIO CRO III	Asst. Revenue District Officer RDO 21A, North Pampanga	OIC – Revenue District Officer RDO 7 Bangue, Abra
111. ARTURO D. ABENOJA JR. CRO IV	Revenue District Officer RDO 89 Ormoc City	Revenue District Officer RDO 69 Virac, Catanduanes
112. ALEXANDER P. LAROZA CRO III	OIC – Revenue District Officer RDO 90 Maasin, So. Leyte	OIC – Revenue District Officer RDO 12 Lagsan, Iligan
113. ROGER G. CADAVER CRO III	Asst. Revenue District Officer RDO 14 Mati, Davao Cr.	OIC – Revenue District Officer RDO 102 Marawi City
114. AIDA P. OLMEDA CRO III	Asst. Revenue District Officer RDO 97 Gingoog City	OIC – Revenue District Officer RDO 938 Zamboanga Sibugay
115. TEODORA C. SUMAGUE CRO III	OIC – Revenue District Officer RDO 56 Calamba, Laguna	OIC – Revenue District Officer RDO 85, Cataman, Northern Samar
116. EDUARDO B. GAYAS CRO IV	Technical Assistant RR 14 Tacloban City	Revenue District Officer RDO 35 Romblon
117. ROMULO C. REGANON CRO IV	Technical Assistant RR 14 Tacloban City	Revenue District Officer RDO 22 Baler, Quezon
118. RENATO L. RUIZ CRO IV	Revenue District Officer RDO 10 Bontoc, Mt. Province	Revenue District Officer RDO 11 Tabuk, Kalinga-Apayao
119. IGNACIO T. CAMBA, JR. CRO III	OIC – Revenue District Officer RDO 16 Cabanatuan, Quirino	OIC – Revenue District Officer RDO 10 Bontoc, Mt. Province
120. MIGUEL B. MORADA JR. ROV	OIC-Asst. Revenue District Officer RDO 17A Tarlac City, Tarlac	OIC – Revenue District Officer RDO 16 Cabanatuan, Quirino
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION SEP 11 2013		

121. CECILIA C. CAMPOS CRO III	Technical Assistant Project Mgt. & Implementation Service	Assistant Chief LTDO – Makati Large Taxpayer Service
122. AMELIA C. RIVERA CRO III	Asst. Chief, LT Collection & Enforcement Division Large Taxpayer Service	OIC-Chief, LT Collection & Enforcement Division Large Taxpayer Service
123. TERESITA J. VENTURILLO CRO II	Core Expert Team Project Mgt. & Implementation Service	OIC – Asst. Chief, LT Collection & Enforcement Division Large Taxpayer Service
124. GLORIALIZA G. SAMOY CRO I	Section Chief, Regular LT Audit Division 1 Large Taxpayer Service	OIC – Asst. Chief, Regular LT Audit Division 1 Large Taxpayer Service
125. JULIO G. ALCASABAS CRO IV	Revenue District Officer RDO 57 San Pedro, Laguna	Core Expert Team Project Mgt. & Implementation Service
126. TEODORO G. GALICIA ATTY. V	Revenue District Officer RDO 46 North Makati	Core Expert Team Project Mgt. & Implementation Service
127. ABILIA S. BENTULAN CRO IV	Revenue District Officer RDO 132 East Davao City	Core Expert Team Project Mgt. & Implementation Service
128. JAMES R. FERRER CRO III	OIC – Revenue District Officer RDO 238 South Nueva Ecija	Core Expert Team Project Mgt. & Implementation Service
129. BONIFACIO L. CARINGAL CRO III	OIC – Revenue District Officer RDO 26 Malabon-Navotas	Core Expert Team Project Mgt. & Implementation Service
130. ERILINDA SD. PLANTANILLA CRO IV	Revenue District Officer RDO 17A Tarlac City, Tarlac	Core Expert Team Project Mgt. & Implementation Service
131. NEMESIA G. DIANO CRO III	OIC – Revenue District Officer RDO 64 Dael, Camarines Norte	Core Expert Team Project Mgt. & Implementation Service
132. IMELDA A. BUENO CRO IV	Revenue District Officer RDO 2 Vigan, Ilocos Sur	Core Expert Team Project Mgt. & Implementation Service
133. BEVERLY MILO CRO IV	Revenue District Officer RDO 6 Urdaneta, Pangasinan	Core Expert Team Project Mgt. & Implementation Service
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION SEP 11 2013		

134. ARTURO A. ACABAL CRO III	OIC-Revenue District Officer RDO 78 Binabagan, Negros Occidental	Core Expert Team Project Mgt. & Implementation Service
135. ELMER A. PADERES CRO IV	Revenue District Officer RDO 23A North Nueva Ecija	Core Expert Team Project Mgt. & Implementation Service
136. ROLANDO B. ESPINA CRO IV	Revenue District Officer RDO 87 Catibogan, Western Samar	Core Expert Team Project Mgt. & Implementation Service
137. MA. LUISA I. BELEN CRO IV	Revenue District Officer RDO 66 Iriga City	Core Expert Team Project Mgt. & Implementation Service
138. ANASTACIA B. DEGALA CRO III	OIC – Revenue District Officer RDO 109 Tacurong, Sultan Kudarat	Core Expert Team Project Mgt. & Implementation Service
139. AVIA B. GLOBASA CRO III	OIC – Revenue District Officer RDO 37 San Jose, Occ. Mindoro	Core Expert Team Project Mgt. & Implementation Service
140. MELQUIADES A. CANCELA CRO III	OIC – Revenue District Officer RDO 70 Masbate, Masbate	Core Expert Team Project Mgt. & Implementation Service
141. CLAIRE F. CORPUS CRO IV	Revenue District Officer RDO 32 Guapo-Sampaloc-San Miguel	Core Expert Team Project Mgt. & Implementation Service
142. SOLOMON B. BARSAGA CRO III	OIC-Revenue District Officer RDO 7, Bangue, Abra	Core Expert Team Project Mgt. & Implementation Service
All concerned personnel are directed to strictly comply with the provisions of Revenue Memorandum Order No. 38-2011 dated September 16, 2011, as amended by Revenue Memorandum Order No. 39-2011 dated October 25, 2011 regarding turnover of all accountabilities and compliance to issued RTAOs covering transfer of personnel. This Order takes effect immediately.		
BUREAU OF INTERNAL REVENUE RECORDS MGT. DIVISION SEP 11 2013		

KIM S. S. TORRENALES
Commissioner of Internal Revenue
017888

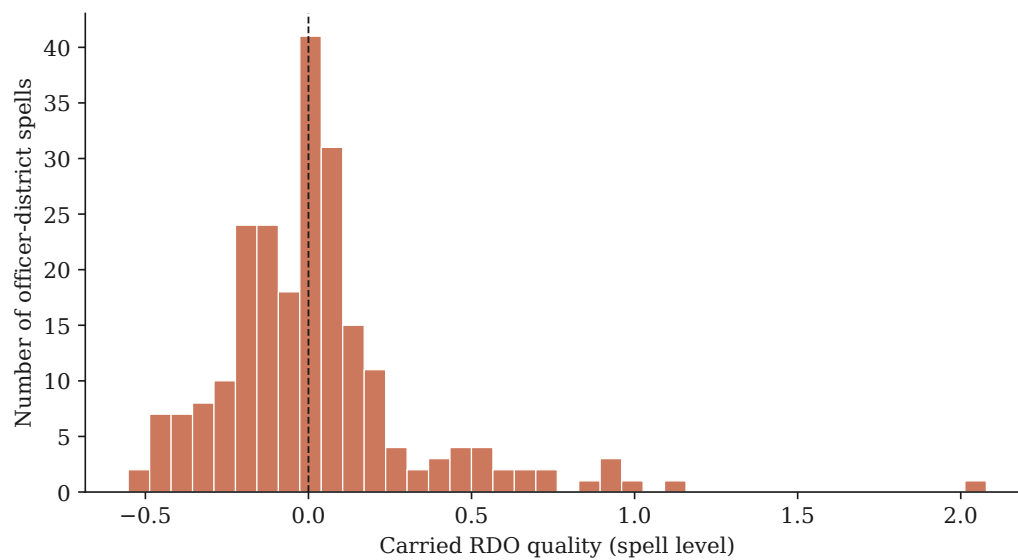
Note: Continuation of RTAO No. 38-2013.

Table A3: Worked Examples of the Leave-One-Out Quality Construction

Year	District	log Revenue	LOO residual	Carried quality
<i>FR Aninag</i>				
1999	1	5.413	-0.464	—
2000	1	5.739	0.135	—
2001	1	5.757	0.049	—
2002	1	5.853	0.089	—
2003	1	5.889	0.086	—
2003	21	7.775	-0.083	-0.021
2004	21	7.936	-0.025	-0.021
2005	21	8.068	-0.076	-0.021
2006	21	8.305	0.016	-0.021
2007	21	8.403	0.092	-0.021
2007	43	9.715	-0.157	-0.030
<i>DW Quirino</i>				
1999	12	3.848	-0.364	—
2000	12	4.006	0.054	—
2001	12	3.850	-0.226	—
2002	11	4.776	0.144	-0.142
2002	12	4.083	-0.034	—
2003	11	4.684	-0.001	-0.142
2004	11	4.783	-0.012	-0.142
2005	11	4.923	-0.053	-0.142
2006	11	4.976	-0.165	-0.142
2007	11	5.084	-0.077	-0.142
<i>ET Cosico</i>				
2002	62	3.857	-0.074	—
2003	62	3.977	0.016	—
2004	62	4.155	0.094	—
2005	62	4.398	0.167	—
2006	62	4.463	0.068	—
2007	62	4.691	0.290	—

Note: Each panel is one officer's observed career. LOO residual is the leave-one-out residual $\hat{u}_{dt}$ from Equation 2; carried quality is $\widehat{Quality}_{r,-d,t}$ from Equation 3, the mean of the officer's residuals in other districts in earlier years. Dashes indicate officer-district-years with no qualifying prior out-of-district history.

Figure A3: Distribution of Carried RDO Quality



Note: Spell-level values of $\widehat{Quality}_{r,-d,t}$ (one per officer-district pair) for the estimation sample. The dashed line marks zero, the district-and-year benchmark against which residual performance is measured.

A.2 Full Estimates and Measure Validity

This section reports the full baseline and difference-in-differences estimates and evaluates whether the carried-quality measure captures a persistent officer-specific component of performance. We first report the complete specifications underlying the main-text results, then assess the quality measure using permutation and within-career persistence tests.

A.2.1 Full Baseline and Difference-in-Differences Estimates

Table A4 reports the complete stacked-horizon estimates of Equation 4, including the horizon-interacted controls omitted from Table 1 for presentation. Table A5 reports five difference-in-differences specifications around high-quality RDO arrivals. Columns (1)–(2) use the stacked design of Equation 5 with and without time-varying controls, while columns (3)–(5) replace the event-by-district and event-by-event-time fixed effects with calendar-year and region fixed effects. The stacked specification with controls yields $\delta = 0.151$, the estimate reported in the paper. Without controls, the stacked estimate is close to zero, reflecting substantial differences in revenue conditions across districts within event windows.

A.2.2 Permutation Placebo Test

We assess whether the estimated relationship between carried quality and subsequent revenue could arise by chance using a permutation test. We randomly reassign spell-level quality values across officer-district spells, rebuild the stacked panel, and re-estimate the baseline specification 500 times. This procedure preserves the distribution of measured quality while severing its correspondence with the officer’s subsequent revenue performance.

Figure A4 compares the resulting null distributions with the observed estimates. The placebo coefficients are centered near zero at every horizon. By contrast, the observed one- and two-year estimates lie in the right tails of their respective distributions, with two-sided empirical p -values of 0.014 and 0.042. The contemporaneous estimate remains indistinguishable from the placebo distribution ($p = 0.214$), reproducing the temporal pattern in the baseline results.

A.2.3 Persistence Across Career Halves

A second test asks whether the quality measure captures a persistent component of officer performance. For officers with estimable residuals in at least two distinct years, we divide their observations at the median career year and separately average residual performance in the early and late periods. Because these measures draw on non-overlapping assignments and typically different districts, their association cannot be driven by a single posting or local shock.

Table A6 shows that early- and late-career quality are positively associated. The Spearman rank correlation is 0.150 ($p = .031$, $N = 209$), indicating that officers who perform relatively well earlier in their observed careers also tend to perform relatively well later. The corresponding OLS slope is positive but imprecisely estimated, suggesting that officers’ relative ranking is more persistent than the cardinal magnitude of residual performance (Chetty, Friedman and Rockoff, 2014; Kane and Staiger, 2008).

Table A4: Full Baseline Estimates

	(1) Total	(2) Voluntary	(3) Assessment	(4) Delinquent
RDO Quality ($h = t$)	0.040 (0.042)	0.031 (0.045)	0.294 (0.316)	-0.044 (0.250)
RDO Quality ($h = t + 1$)	0.105*** (0.029)	0.105*** (0.029)	0.120 (0.293)	0.012 (0.246)
RDO Quality ($h = t + 2$)	0.135*** (0.037)	0.135*** (0.036)	0.309 (0.333)	-0.158 (0.289)
log Potential revenue ($h = t$)	0.116*** (0.029)	0.108*** (0.029)	0.465** (0.222)	-0.073 (0.137)
log Potential revenue ($h = t + 1$)	0.006 (0.032)	0.010 (0.033)	-0.111 (0.204)	-0.304** (0.142)
log Potential revenue ($h = t + 2$)	-0.101** (0.046)	-0.098** (0.046)	-0.392 (0.287)	0.023 (0.202)
log Intergovernmental transfers ($h = t$)	0.026 (0.116)	0.032 (0.119)	-0.724 (0.875)	-0.428 (0.870)
log Intergovernmental transfers ($h = t + 1$)	0.098 (0.098)	0.099 (0.103)	-0.425 (1.221)	-0.198 (0.776)
log Intergovernmental transfers ($h = t + 2$)	0.147 (0.166)	0.147 (0.168)	-1.787** (0.760)	0.947 (0.805)
log Total expenditure ($h = t$)	0.071 (0.053)	0.066 (0.061)	0.654 (0.560)	0.451 (0.476)
log Total expenditure ($h = t + 1$)	0.109** (0.055)	0.113* (0.059)	0.726 (0.636)	0.063 (0.294)
log Total expenditure ($h = t + 2$)	0.036 (0.096)	0.043 (0.096)	0.409 (0.423)	-0.824 (0.590)
log Revenue goal ($h = t$)	0.064 (0.177)	0.073 (0.179)	0.374 (0.672)	0.381 (0.354)
log Revenue goal ($h = t + 1$)	-0.097 (0.089)	-0.100 (0.092)	0.042 (0.953)	0.703 (0.601)
log Revenue goal ($h = t + 2$)	-0.013 (0.200)	-0.028 (0.210)	0.352 (1.756)	0.269 (1.264)
Observations	1,016	1,016	1,016	1,016
Adj. R ²	0.990	0.990	0.662	0.491

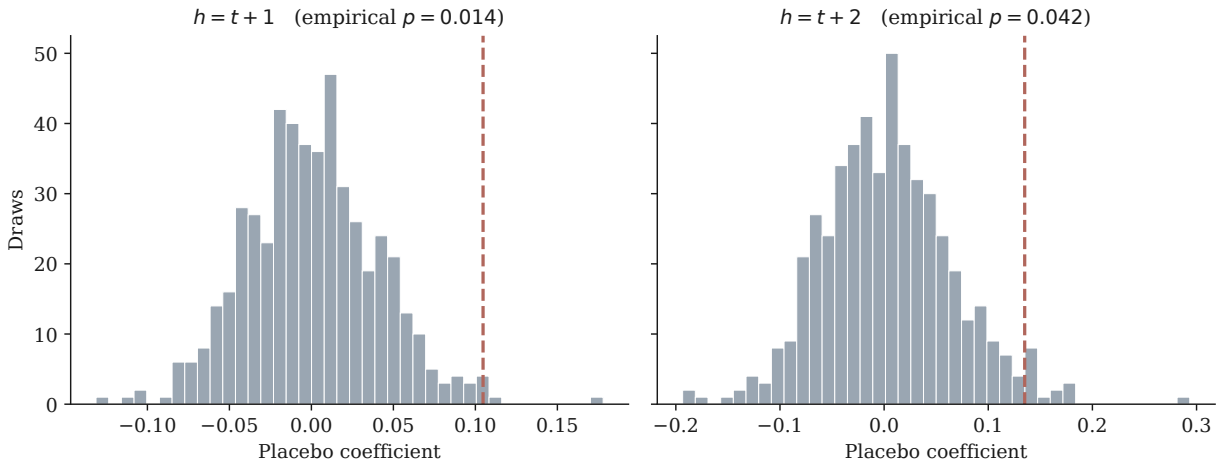
Note: Stacked-horizon OLS estimates of Equation 4 ($h = 0, 1, 2$) reporting all non-absorbed coefficients. The outcome is log revenue at $t + h$; columns decompose total collections into their administrative channels. Controls and fixed effects are interacted with horizon. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

Table A5: Difference-in-Differences Estimates: All Specifications

	(1)	(2)	(3)	(4)	(5)
High-quality arrival $\times$ Post	0.151** (0.064)	−0.010 (0.088)	0.112** (0.053)	0.180 (0.198)	0.173 (0.382)
Event $\times$ district FE	Yes	Yes	No	No	No
Event $\times$ event-time FE	Yes	Yes	No	No	No
Year FE	No	No	Yes	Yes	No
Region FE	No	No	Yes	Yes	No
Controls	Yes	No	Yes	No	No
Observations	957	1,329	987	1,359	1,359

Note: The outcome is log total revenue in the stacked event panel around high-quality RDO arrivals. Columns (1)–(2) use event-by-district and event-by-event-time fixed effects; columns (3)–(5) replace them with calendar-year and region fixed effects. Controls are logged potential revenue, intergovernmental transfers, total expenditure, and revenue goal. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

Figure A4: Permutation Placebo Test



Note: Each panel plots the distribution of the RDO-quality coefficient across 500 permutations in which spell-level quality values are randomly reassigned across officer-district spells. The dashed line marks the observed baseline estimate; empirical p -values are the two-sided share of placebo draws at least as large in absolute value as the observed estimate.

Table A6: Persistence of Quality Across Career Halves

	Estimate
Spearman rank correlation	0.150** [$p = 0.031$]
OLS slope (late on early)	0.025 (0.114)
Officers	209

Note: Unit of observation is the officer. Estimable leave-one-out residuals are split at the officer’s median year into early and late periods and averaged within each. The OLS row regresses late-period on early-period quality with heteroskedasticity-robust standard errors. *** $p < .01$, ** $p < .05$, * $p < .10$.

A.3 Robustness Checks

This section assesses the robustness of the baseline results to alternative estimators, outcome treatment, sample restrictions, and inference. We then examine directly whether the returns to officer quality are concentrated in assignments extending beyond the statutory tenure limit.

A.3.1 Alternative Specifications and Outcome Treatment

Table A7 estimates the quality–revenue relationship separately at each horizon rather than using the stacked specification. The coefficients are numerically identical to the baseline estimates, as expected because the stacked model interacts all coefficients with horizon. Table A8 instead addresses sensitivity to extreme revenue observations by winsorizing district-year revenue and its leads before taking logs. The one-year effect remains stable and statistically significant across thresholds, while the two-year effect weakens only under the most aggressive, 90-percent winsorization.

Table A9 reports additional specification and inference checks. Reparameterizing the model so that later horizons enter as increments relative to the arrival year yields positive and increasing increments, with the two-year increment significant at the 10 percent level. The temporal profile is also similar when the sample is restricted to district-years observed at all three horizons and under alternative clustering by district-year or two-way by district and year.

A.3.2 Subsamples and the Role of Tenure

Table A10 examines sensitivity to sample composition by excluding overstay spells, excluding district-years served by multiple officers, and requiring the quality measure to draw on at least two or three prior out-of-district assignments. The one-year relationship remains stable across the officer-composition restrictions. In contrast, excluding overstay spells eliminates the quality–revenue relationship.

Table A11 examines this pattern directly by interacting carried quality with an indicator for assignments extending beyond the statutory three-year limit. Within the tenure

Table A7: Horizon-by-Horizon Independent Regressions

	$h = t$	$h = t + 1$	$h = t + 2$
RDO Quality	0.040 (0.042)	0.105*** (0.029)	0.135*** (0.037)
Observations	419	334	263

Note: Each column is a separate OLS regression of log revenue at $t + h$ on carried quality, the baseline controls, and district and year fixed effects. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

Table A8: Winsorized Revenue Outcomes

	(1) 99%	(2) 95%	(3) 90%
RDO Quality ($h = t$)	0.040 (0.042)	0.043 (0.044)	0.038 (0.044)
RDO Quality ($h = t + 1$)	0.097*** (0.030)	0.087** (0.034)	0.078** (0.032)
RDO Quality ($h = t + 2$)	0.115** (0.045)	0.122*** (0.046)	0.076 (0.046)
Observations	914		

Note: Stacked-horizon estimates of Equation 4 after winsorizing the district-year revenue level and its leads symmetrically at the indicated percentile (the 99% column clamps values below the 1st and above the 99th percentile) before taking logs. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

limit, the returns to quality are small and statistically insignificant. Among overstay spells, the total effect rises to 0.185 ($p < .01$) after one year and 0.193 ($p < .05$) after two years. The baseline relationship is therefore concentrated among officers who remain beyond the statutory tenure limit, consistent with the quality–tenure complementarity developed in the paper.

Table A9: Alternative Parameterizations and Clustering

	(1) Differences	(2) Balanced	(3) Cluster d×t	(4) Two-way
Quality ($h = t$, base)	0.040 (0.042)			
Increment ($t + 1$)	0.064 (0.039)			
Increment ($t + 2$)	0.095* (0.050)			
Quality ($h = t$)		0.045 (0.050)	0.040 (0.045)	0.040 (0.032)
Quality ($h = t + 1$)		0.102*** (0.036)	0.105*** (0.034)	0.105** (0.038)
Quality ($h = t + 2$)		0.135*** (0.037)	0.135*** (0.039)	0.135* (0.055)
Observations	1,016	789	1,016	1,016

Note: Column (1) reparameterizes Equation 4 so the later horizons enter as increments relative to the arrival year. Column (2) restricts to the balanced subsample observed at all three horizons. Columns (3)–(4) re-estimate the baseline with standard errors clustered by district-year and two-way by district and year. *** $p < .01$, ** $p < .05$, * $p < .10$.

Table A10: Subsample Robustness

	(1) Spells ≤ 3 yr	(2) Single officer	(3) ≥ 2 priors	(4) ≥ 3 priors
RDO Quality ($h = t$)	−0.027 (0.058)	−0.008 (0.126)	−0.008 (0.057)	0.002 (0.062)
RDO Quality ($h = t + 1$)	0.020 (0.063)	0.207*** (0.068)	0.115*** (0.037)	0.118*** (0.038)
RDO Quality ($h = t + 2$)	0.100 (0.089)	0.044 (0.103)	0.066* (0.035)	0.050 (0.033)
Observations	373	539	808	687

Note: Stacked-horizon estimates of Equation 4 on restricted samples: dropping spells longer than three years, dropping district-years with multiple officers, and requiring at least two or three prior out-of-district assignments behind the quality measure. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

Table A11: Heterogeneity by Tenure: Quality $\times$ Overstay

	$h = t$	$h = t + 1$	$h = t + 2$
RDO Quality (spells ≤ 3 yr)	0.009 (0.064)	0.053 (0.053)	0.089 (0.073)
$\times$ Overstay increment	0.091 (0.097)	0.132 (0.094)	0.104 (0.132)
Total effect, overstay spells	0.100 (0.063)	0.185*** (0.061)	0.193** (0.087)
Observations	1,016		

Note: Stacked-horizon estimates of Equation 4 augmented with an overstay indicator (spell length beyond three years) and its interaction with carried quality; the sample is restricted to officer-district-years matched to a spell. The total effect for overstay spells is the sum of the main and interaction coefficients, with delta-method standard errors. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

A.4 Instrument Validity and Alternative Explanations

This section provides additional evidence on the validity of the transfer-ban design and considers alternative explanations for the main results. We first examine the relevance, independence, exclusion, and monotonicity conditions underlying the instrument. We then report results using a broader forced-stay instrument and assess whether the quality–revenue relationship reflects selective assignment or observable officer characteristics.

A.4.1 Validity of the Transfer-Ban Instrument

The instrument exploits the intersection of two independently determined timelines: nationally fixed election-period transfer bans and an officer’s three-year assignment anniversary, determined by a posting made three years earlier. Identification therefore comes from whether a predetermined anniversary falls inside a nationally imposed ban window. We assess the assumptions underlying this design in turn.

Relevance

Panels B and C of Table 3 show that transfer-ban exposure increases the probability that an officer remains beyond the statutory tenure limit. The joint F -statistics on the excluded instruments range from 34.5 to 44.8 for overstay and are 79.6 and 21.8 for the interaction between overstay and quality at the one- and two-year horizons. The exception is the interaction first stage at the contemporaneous horizon ($F = 4.08$). We therefore rely on the reduced form, rather than the 2SLS estimate, for inference at that horizon.

Independence

Identification requires ban exposure to be unrelated to characteristics that independently determine revenue performance. A potential concern is strategic assignment timing: the BIR could assign particular officers so that their three-year anniversaries coincide with future

transfer bans. Such behavior would require anticipating the consequences of an assignment three years in advance, but we also examine its observable implication directly.

Table A12 regresses predetermined carried quality on ban exposure using the controls and fixed effects from the IV design. The estimated relationships are small and statistically indistinguishable from zero at every horizon. Thus, officers whose anniversaries fall inside transfer bans are observably similar in predetermined quality to those whose anniversaries fall outside them. District-by-horizon fixed effects additionally absorb persistent differences in the types of assignment cohorts received by particular districts.

Table A12: Balance: Ban Exposure and Predetermined Quality

	$h = t$	$h = t + 1$	$h = t + 2$
Ban Exposed	0.144 (0.243)	0.219 (0.331)	0.240 (0.330)

Note: Stacked-horizon regression of carried RDO quality on ban exposure, with the baseline controls interacted with horizon and district-by-horizon and year-by-horizon fixed effects, on the IV estimation sample. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

Exclusion

The exclusion restriction requires ban exposure to affect revenue through the officer’s continuation in the assignment rather than through another channel. Several features of the design support this interpretation. First, identification does not compare election years with non-election years. Year-by-horizon fixed effects absorb common election-year shocks, while the identifying comparison is between spells whose predetermined anniversaries fall inside and outside nationally fixed ban windows.

Second, the reduced form in Panel D of Table 3 exhibits the pattern implied by the complementarity hypothesis. Ban exposure itself has no detectable relationship with revenue; the effect appears through its interaction with predetermined officer quality. A direct effect of the transfer ban that operated similarly across exposed districts would instead appear in the main effect of ban exposure. Explaining the observed pattern through an alternative channel would therefore require that channel to vary systematically with officer quality measured from earlier assignments in other districts.

Finally, carried quality is determined before the focal outcome and enters separately in every specification. The identifying interaction consequently combines predetermined officer heterogeneity with externally imposed variation in the ability to rotate the incumbent.

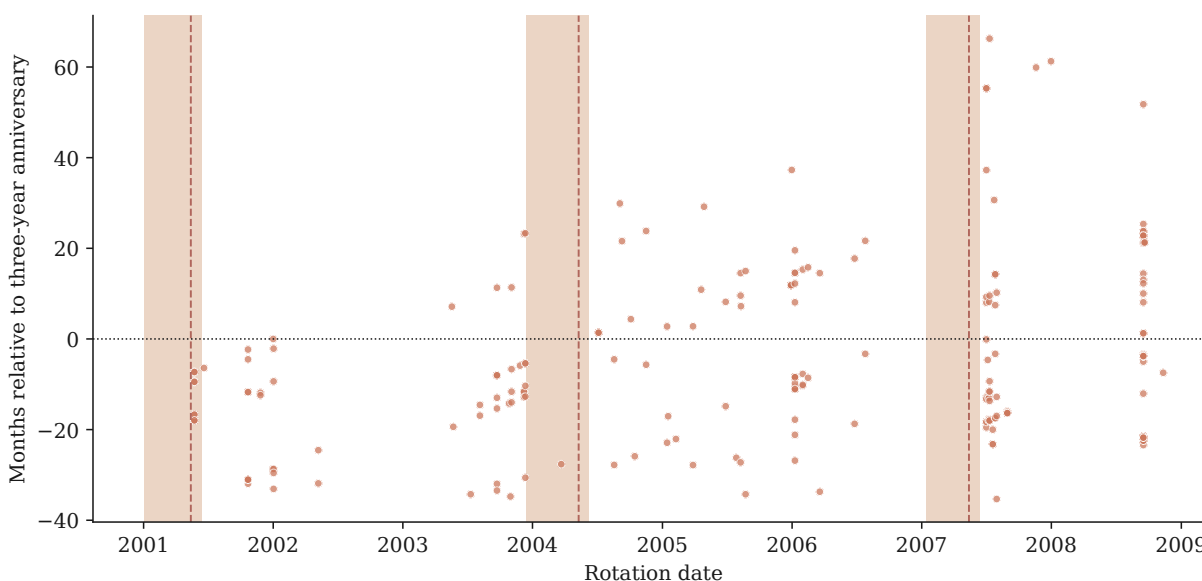
Monotonicity

For the 2SLS estimates to admit the usual local-average-treatment-effect interpretation, transfer-ban exposure must not cause officers who would otherwise overstay to rotate earlier. Figure A5 plots completed spells by the timing of rotation relative to the officer’s three-year anniversary. The pattern shows both delayed and anticipatory rotation. Among the 24 spells

whose anniversaries fall within the 2004 ban window, 14 officers rotate before the ban begins, none during the ban, and 10 after it ends.

Anticipatory rotation does not itself violate monotonicity on the overstay margin: an officer rotated before reaching the three-year anniversary is a non-overstayer. The relevant compliers are therefore officers who remain beyond the statutory limit because a transfer ban prevents a rotation that would otherwise have occurred. The 2SLS estimates should be interpreted as local to these spells.

Figure A5: Rotation Timing Around Election-Period Transfer Bans



Note: Each point is a completed officer-district spell with an observed subsequent rotation, plotted by rotation date (horizontal axis) and months relative to the spell's three-year anniversary (vertical axis; the dotted line marks the anniversary). Shaded bands are the election-period transfer-ban windows (January 2–June 13, 2001; December 15, 2003–June 9, 2004; January 14–June 13, 2007); dashed vertical lines mark election days.

Remaining Caveats

Three limitations qualify the design. First, enforcement of the transfer bans is imperfect: a small number of rotations are recorded during the 2001 window, potentially reflecting COMELEC exemptions, incomplete enforcement, or measurement error in assignment dates. Such noncompliance attenuates the first stage and is reflected in the reported first-stage statistics.

Second, election-period restrictions apply to transfers of other civil servants as well as RDOs. Some of the reduced-form effect could therefore reflect broader continuity in district personnel rather than the RDO's tenure alone. The absence of a detectable main effect of ban exposure is reassuring against a general effect of administrative continuity, but it cannot eliminate this possibility. A conservative interpretation is therefore that the instrument induces continuity in district administration centered on the incumbent RDO.

Third, ban exposure is quasi-experimental rather than randomized, and the 2SLS estimates are local to officers whose tenure is extended by the transfer restriction. We therefore report the reduced form alongside the 2SLS estimates and use an alternative forced-stay instrument as a supplementary test.

A.4.2 The Broader Forced-Stay Instrument

Table A13 broadens the instrument by adding the six months following the appointment of a new BIR Commissioner as forced-stay windows, reflecting the tendency for personnel movements to pause while incoming commissioners review assignments. The results reproduce the pattern from the election-ban design. The reduced-form interactions are positive and statistically significant at the 5 percent level at both forward horizons, and the first stages remain strong beyond the contemporaneous horizon. The 2SLS interaction estimates are also positive but less precisely estimated.

Commissioner transitions, however, are less plausibly exogenous than election-period transfer bans: leadership changes may respond to political conditions, and the six-month window is analytically defined rather than statutory. We therefore treat this specification as corroborating evidence rather than an alternative identification strategy of equal strength.

Table A13: The Broader ForcedStay Instrument

	$h = t$	$h = t + 1$	$h = t + 2$
<i>Panel A: Second stage</i>			
Overstay $\times$ RDO Quality	0.433 (0.411)	0.096 (0.206)	0.151 (0.186)
Overstay	0.040 (0.092)	-0.093 (0.091)	-0.016 (0.064)
Joint F : first stage (Overstay)	12.46	37.25	44.80
Joint F : first stage (interaction)	5.90	48.54	21.83
<i>Panel B: Reduced form</i>			
ForcedStay $\times$ RDO Quality	0.132 (0.161)	0.198** (0.099)	0.102** (0.043)
ForcedStay	0.026 (0.036)	-0.015 (0.040)	0.007 (0.024)

Note: 2SLS and reduced-form estimates replacing ban exposure with a composite ForcedStay indicator equal to one when the three-year anniversary falls in an election-period ban window or within six months of a new BIR Commissioner's appointment. The design otherwise matches Table 3 of the paper. Standard errors clustered by district in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

A.4.3 Selective Assignment and Officer Traits

A separate concern is that the portability result reflects selective assignment rather than officer-specific performance, a first-order possibility given evidence that tax officials' postings respond to performance and local revenue potential (Bergeron et al., 2022; Khan, Khwaja and

Olken, 2019). Table A14 tests whether higher-quality officers are assigned to districts already on favorable revenue trajectories. Restricting the sample to new RDO arrivals, we regress pre-arrival revenue in the destination district on the incoming officer’s predetermined quality. We measure prior revenue both in the year immediately preceding arrival and as the average across all previously observed years. Neither relationship is statistically distinguishable from zero, and both point estimates are negative. We therefore find no evidence that higher-quality officers are systematically assigned to districts already experiencing stronger revenue performance.

Table A15 examines whether carried quality is predicted by observable officer characteristics measured before the focal assignment. Prior overstay is positively associated with quality and prior experience negatively associated with it, both at the 10 percent level, while female officers have lower measured quality in these data. These associations should not be interpreted as differences in underlying competence, since they may reflect differences in assignment histories, opportunities, and other career processes. Collectively, the observed traits explain little of the variation in carried quality (adjusted $R^2 = 0.012$), indicating that the measure captures substantial heterogeneity not summarized by these observable career characteristics.

Table A14: Selective Assignment: Pre-Arrival Revenue and Incoming Quality

	(1) Revenue at $t - 1$	(2) Mean pre-arrival revenue
Incoming RDO Quality	−0.285 (0.177)	−0.015 (0.112)
Year and region FE	Yes	Yes
Controls	Lagged	Pre-arrival means
Observations	70	70

Note: Sample restricted to district-years with a new RDO arrival. The outcome in column (1) is the destination district’s log total revenue at $t - 1$; in column (2) its mean log total revenue over all observed years before the appointment. Both columns include appointment-year and region fixed effects and the corresponding lagged or pre-arrival-mean controls. Standard errors clustered by district in parentheses.

*** $p < .01$, ** $p < .05$, * $p < .10$.

Table A15: Predicting Carried Quality from Officer Traits

	Carried RDO quality
Prior years of service	−0.028* (0.014)
Prior assignment spells	0.018 (0.018)
Prior overstay	0.069* (0.038)
Female	−0.109*** (0.037)
Constant	0.083 (0.061)
Observations	227
Adj. R ²	0.012

Note: Unit of observation is an officer-district assignment with at least one prior spell, non-missing carried quality, and observed gender. All traits are measured strictly before the assignment’s entry year. Gender is coded from officer full names recovered from archival BIR directory pages. Heteroskedasticity-robust standard errors in parentheses. *** $p < .01$, ** $p < .05$, * $p < .10$.

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