The State and the Origins of Inequality: Evidence from Nagaland*

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Abstract

This paper traces the origins of inequality to state expansion. Nagaland, a tribal region in India's northeast, was incorporated into formal state administration in a staggered manner between 1881 and 1947—first under British rule and later by the Indian state. Using variation in years since annexation, I show that longer state exposure improves average well-being in modern times. However, accompanying these changes are increases in within-village wealth inequality, suggesting emerging hierarchies among individuals in the same compact community. The results are robust to an instrumental-variables strategy based on proximity to pre-annexation British tea estates, which influenced annexation timing through security concerns. Exploring channels of persistence, I find that in areas with longer state exposure, political elites hold substantially more assets relative to their constituents' mean incomes; in tandem, these areas also exhibit an expansion of public-sector employment. This pattern suggests the gradual emergence of reciprocal norms of patronage between a new elite class and the rest of society.

JEL Codes: D63, O43, P5, N25.
Keywords: State, Society, Inequality, Zomia, Persistence, Culture, Institutions.

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1 Introduction

While early human societies organized themselves around relatively egalitarian kin-based communities, contemporary societies exhibit far greater social and economic stratification. What accounts for the emergence of such inequalities? This paper advances one possible explanation: the historical spread of states.

Its key argument is that the expansion of the state—by its very nature a bundle of hierarchical institutions—fundamentally restructures social organization and generates emergent economic stratification. In this process, norms of reciprocity gradually emerge between newly-formed elites and the rest of society, in which political authority is exchanged for patronage. As these norms require multiple generations to become embedded, regions with longer historical state exposure continue to exhibit greater stratification even after formal institutions converge.

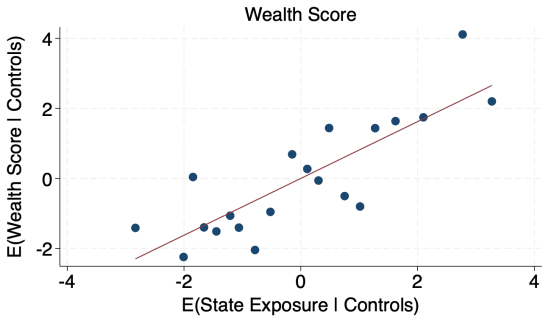
I test this using a natural experiment from Nagaland, a state in northeast India inhabited by historically stateless peoples who were gradually incorporated into formal government, first by the British and later by the newly-independent Indian state. This frontier region called *Zomia* is best described in *The Art of Not Being Governed* by James C. Scott (2009). Extending from western Vietnam up to northeast India, Scott notes how Zomia comprises numerous non-state, mountain-dwelling peoples who for over two millennia have been evading state control, including their use of guerilla tactics to remain stateless.[1]

By the early 19th century, the British had annexed Assam province to the west of Nagaland, after which tea cultivation rapidly expanded in the region. Soon after, these new tea estates became frequent targets of raids by the tribes people.[2] To control these incessant attacks, the Nagaland region was annexed starting in 1881, occurring in a staggered manner up until 1947. Exploiting this variation in years of state exposure, I document a striking dual effect. Longer state presence simultaneously raises average living standards and increases within-village economic inequality. Using data from the 2015

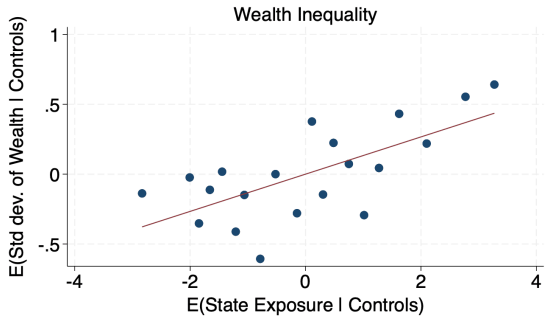
[1] Scott (2009) defines the term 'centrifugal conflict' as a type of warfare meant to preserve decentralized power. He further argues that *Zomia* represents perhaps the last broad region in the world to be incorporated into states; this provides us a rare opportunity to study the historically recurring process through which non-state societies are absorbed into formal state structures.

[2] There are two main historical explanations as to why these raids occurred: first, the local tribes harbored deep fears that British expansion would inexorably lead to the dispossession of their lands and the destruction of their political independence (Mackenzie, 2012; Elwin, 2009). Second, raiding was the primordial social contract in the region—a longstanding institution that governed inter-village relations, distributed prestige, and structured political authority (Hutton, 1965; Furer-Haimendorf, 1976; Wouters and Heneise, 2017; Gershman and Mumladze, 2024). Regardless, both explanations do not allude to economic intentions as the basis for annexation.

Demographic and Health Survey (DHS, henceforth), I find that each additional decade under the state increases average wealth by 0.15 standard deviations, raises schooling attainment by 0.4 years, reduces child mortality by 0.9 percentage points, and lowers agricultural share of employment by 4 percentage points.[3]



(a) Wealth score is a continuous variable constructed using principal component analysis of household asset ownership. Data collapsed to the village level.



(b) The outcome plotted is the standard deviation of the wealth score within a DHS cluster.

Figure 1: Binned scatter plots of residualized wealth outcomes against residualized state exposure, conditional on geographic covariates. The plots are based on regressions from column 1 of Tables 1 and 2 respectively.

Yet these aggregate gains mask significant distributional consequences. The same decade of state exposure that raises average wealth also increases within-village wealth inequality by 0.07 standard deviations as measured by the interquartile range, and by 0.08 standard deviations using the overall standard deviation of the wealth distribution.[4] Figure 1 illustrates this pattern visually: villages with longer state exposure are simultaneously wealthier on average and more internally unequal. State expansion thus delivers broad-based improvements in material welfare while simultaneously creating new forms of economic hierarchy within previously egalitarian communities. This finding challenges both purely optimistic views of the state as an unambiguous force for development and purely pessimistic views of the state as simply extractive. Instead, I show that the state fundamentally transforms the social contract, generating growth and stratification as joint outcomes.[5]

[3]This set of findings is consistent with previous studies linking state exposure and economic well-being (Bockstette et al., 2002; Gennaioli and Rainer, 2007; Putterman and Weil, 2010; Michalopoulos and Papaioannou, 2013).

[4]Translating these estimates to a 25-year increase in state exposure implies an increase in within-village wealth inequality of approximately 0.2 standard deviations using the wealth standard deviation.

[5]This historical setting (forceful annexation) is neat in the sense that it alleviates concerns raised in favor of the converse argument: rather than state expansion generating inequality, gradually-emerging social and economic disparities may have produced elites who subsequently constructed hierarchical political

Despite these strong correlations, a central identification challenge is that the timing of state incorporation may itself be endogenous. Villages that were wealthier, more internally stratified, or possessed other unobserved characteristics may have been incorporated earlier, biasing estimates of the state's effect. Alternatively, the British may have prioritized annexation of economically valuable territories or areas with particular strategic importance, again confounding results. Several features of the historical context mitigate these concerns—anthropological accounts uniformly describe pre-colonial Naga villages as egalitarian, and British colonial records emphasize that annexation was driven by security considerations rather than economic extraction—but I nonetheless adopt an instrumental variables strategy to address potential endogeneity directly.

I instrument for state exposure using village-level proximity to British tea estates established in the neighboring Assam plains prior to annexation. Tea plantations were large, immobile investments that generated substantial returns but required protection from raids by surrounding hill communities. As a result, villages closer to tea estates were annexed earlier as the British sought to create buffer zones protecting these investments.[6] The IV estimates confirm and strengthen the baseline results, showing large causal effects of state exposure on wealth inequality across all measures, with IV magnitudes exceeding OLS estimates, a likely result of attenuation from measurement error in annexation timing.[7]

To further validate the identification strategy, I conduct a falsification test using the neighboring state of Manipur. The instrumental variable relies on the assumption that proximity to British tea estates affected long-run outcomes in Nagaland only by shaping the timing of state expansion, rather than through direct economic channels such as labor market integration or technology spillovers from tea cultivation. Manipur provides an ideal falsification test: it is home to several historically stateless tribal communities similar to those in Nagaland, but these areas were incorporated into the Kingdom of Manipur—an

institutions (Engels, 2001; Scott, 2017; Mayshar et al., 2022). Under this view, the state is an institutional expression of inequality, not its origin. That said, there nonetheless lies considerable merit in exploring the converse possibility (Claessen and Skalník, 2011). Take, for instance, the fairly well-established fact that states emerged endogenously in only a small number of regions worldwide (Heldring, 2025b), implying that for most societies, the introduction of state institutions and political hierarchy occurred externally—often through conquest, incorporation, or emulation.

[6]The instrument is constructed as an inverse-distance-weighted measure of exposure to pre-annexation tea estates, with weights proportional to estate area, capturing both proximity and the scale of colonial capital at risk. Estate locations were determined by agro-climatic suitability for tea cultivation in the Assam plains rather than by economic or social conditions in the Nagaland hills, and at the time of establishment in the 1830s and 1840s the British had neither detailed knowledge of nor intentions to incorporate hill communities.

[7]Another source of measurement error arises from DHS cluster locations being randomly displaced to protect confidentiality—by up to 5 km in rural areas, and up to 10 km for 1% of clusters.

indigenous centralized polity—largely simultaneously in the mid-nineteenth century, for reasons unrelated to British tea cultivation in Assam.

If the exclusion restriction holds, tea estate exposure should predict inequality in Nagaland, where frontier security concerns plausibly influenced annexation timing, but not in the tribal areas of Manipur, where state incorporation followed a fundamentally different historical trajectory unrelated to British commercial interests. Consistent with this logic, I find no systematic relationship between tea estate exposure and inequality in Manipur. The reduced-form coefficients are close to zero and statistically insignificant, with magnitudes about a tenth of those observed in Nagaland. This pattern strengthens the interpretation of the instrument as capturing variation in state expansion driven by colonial security concerns rather than broader regional effects of tea cultivation or market spillovers. Lastly, as an additional check, I also confirm the robustness of the results to controlling for distance to the capital city of the historical Ahom kingdom, distance to key trade routes, distance to contemporary railway stations in neighboring regions, and nearest distance to the plains.

Having established that state expansion increases within-village inequality, I turn to channels of persistence. I uncover three in particular that jointly explain how longer exposure to state institutions likely entrenches hierarchy over the long run by creating norms of reciprocity between members of the state and non-elites.

First, I document elite wealth accumulation. Using data on state assembly election candidates, I find that longer state exposure produces substantially wealthier political elites: each additional decade of exposure is associated with rises in elite wealth (measured as log of total reported assets declared in affidavits) by 0.25 log points. I then measure the wealth gap between these politicians and their constituents as the difference between their own asset holdings and the mean annual per-capita income of the constituency they represent. This is meant to capture the relative standing of political elites. I find that longer state exposure is associated with a wider elite–non-elite gap, with each additional decade increasing the wealth gap by 0.18 log points.

Second, I show that elites likely maintain political support through patronage-based public employment, and that these state-sponsored jobs generate further inequality by widening the gulf between public-sector workers and those who remain in agriculture. Using village-level data from the Socioeconomic and Caste Census (2011), I find that an additional decade of state exposure raises the share of households engaged in public sector employment by 2.1 percentage points, displaying a form of reciprocity between state and society, in which political elites accumulate authority while distributing access to salaried

employment to those in close proximity (Besley, 2020).[8] Interestingly, longer-exposed villages are also more likely to derive income from private sector employment, though with estimated magnitudes smaller than those for public employment, suggesting that the state complements rather than crowds out private economic activity.

Third, I show that prolonged state exposure reshapes political preferences. Using individual-level data from a 2008 post-election survey, I find that residents of villages with longer state exposure are more likely both to be aware of and to support ongoing political movements seeking to integrate Naga-inhabited areas across neighboring states.[9] This pattern suggests that sustained interaction with state institutions generates demand for further state expansion. Rather than resisting hierarchy, populations with longer exposure appear more willing to accept it.[10]

These channels align with the notion that changes in formal rules of the game can spur a shift in norms about the social contract that then produce persistent effects long after formal institutions converge. In line with Besley (2020), this equilibrium is sustained not merely through enforcement or material incentives, but through the gradual internalization of reciprocal obligations between citizens and the state. Moreover, such norms require time to take root—often spanning multiple generations. As of my study period in 2015, the duration under the state ranges from 68 (for those annexed in 1947) to 134 (for those in 1881), implying a significant difference in head-starts. Compounding this is the fact that for Nagaland, society had remained stateless for thousands of years, having developed strong norms in the past aimed at village autonomy (Scott, 2009). When put in this context, these numbers suggest that villages with longer historical exposure to state authority would have progressively, though gradually, cultivated a larger share of residents embodying these emergent reciprocal norms.[11]

My findings contribute to three broad literatures. First, I advance understanding of the state's role in economic development. A large body of influential work emphasizes that

[8] This pattern accords well with influential qualitative theories of early state penetration into non-state societies (Fukuyama, 2011), where state–society relations evolve not along a Weberian bureaucratic model but rather toward a patrimonial equilibrium (Heldring, 2025a).

[9] This political movement, called 'Greater Nagaland', has been ongoing since the 1950s and aims to integrate Naga-inhabited areas in adjoining states with Nagaland.

[10] Finally, I rule out a human-capital channel: state exposure does not increase within-village inequality in years of schooling and, if anything, slightly reduces educational dispersion, indicating that rising wealth inequality is unlikely to be driven by disparities in educational attainment.

[11] For villages annexed in 1947, only two to three generations had elapsed by 2015, compared to approximately six generations for villages annexed in 1881. Given that Naga societies had remained stateless for thousands of years (Scott, 2009), even 134 years represents a relatively brief period for new hierarchical norms to take root. This generational difference implies that longer-exposed villages would have had substantially more time for reciprocity norms linking political elites to their constituents to become culturally embedded through socialization and intergenerational transmission.

state capacity—the ability of governments to raise revenues, enforce contracts, and provide public goods—promotes economic growth and development (Bockstette et al., 2002; Gennaioli and Rainer, 2007; Michalopoulos and Papaioannou, 2013; Besley, 2020). My results do not contradict this view: I find clear evidence that state expansion raises average living standards, improves health outcomes, and facilitates structural transformation. However, I show that these aggregate effects obscure significant distributional consequences. The state is neither purely developmental (Besley and Persson, 2011) nor purely extractive (Engels, 2001). Instead, the state simultaneously delivers economic growth *and* generates inequality.

Second, I provide a historical account of the origins of inequality, contributing to a growing literature that traces contemporary disparities to deep-rooted determinants. Recent works identify the fundamental sources of economic and social stratification to crop appropriability (Mayshar et al., 2022), technological advances in early farming (Bowles and Fochesato, 2024), geographic endowments (Fenske, 2013), slavery and forced labor institutions (Bertocchi and Dimico, 2014), traditional land tenure systems (Le Rossignol et al., 2024), and long-distance trade (Flückiger et al., 2024). I advance a complementary institutional explanation: the spread of states likely causes the emergence of new elites who play a role in entrenching inequalities in the long run.

Third, I contribute to a growing literature examining the interplay between formal institutions imposed from above and cultural norms and preferences that evolve from below (Lowes et al., 2017; Dell et al., 2018; Besley, 2020; Heldring, 2021; Bisin and Verdier, 2024). Complementing this set of studies, I show how the introduction of the state, which was instituted from the top, shifts societal preferences, drifting them towards public employment while also increasing their demand for even more state expansion. In this sense, the results extend the argument in *The Art of Not Being Governed* (Scott, 2009), which emphasizes state avoidance and resistance, especially for societies that stand to lose from it. While such resistance to hierarchy may have been true of earlier, more coercive forms of state expansion, later forms of state penetration may instead generate demand by offering new, largely non-coercive opportunities—such as salaried employment—that reshape preferences and sustain state authority.

The remainder of this paper proceeds as follows. Section 2 provides detailed historical context on the Nagaland region, the process of British annexation, and the specific institutions introduced by the state. Section 3 describes my data sources, the construction of key variables, and summary statistics. Section 4 outlines the empirical strategy, including both the OLS framework and the instrumental variables approach based on proximity to British tea estates. Section 5 presents the main results documenting the dual effects of state

expansion on average outcomes and inequality. Section 6 investigates mechanisms through which the state generates both development and stratification, examining political elite formation, public sector employment expansion, and the evolution of political attitudes. Section 7 concludes with a discussion of implications for contemporary state-building efforts in contexts where formal state institutions are weak or absent.

2 Historical Context

2.1 Study Setting

My study region is the state of Nagaland, a highland region in northeastern India inhabited by a people who today collectively identify as Naga. In the terminology of Van Schendel (2005) and Scott (2009), this area forms the western frontier of *Zomia*.[12] Prior to European entry into the region, the highlands of the northeast—comprising five present-day Indian states formed after independence—as well as much of Zomia remained largely outside the ambit of centralized state authority.[13]

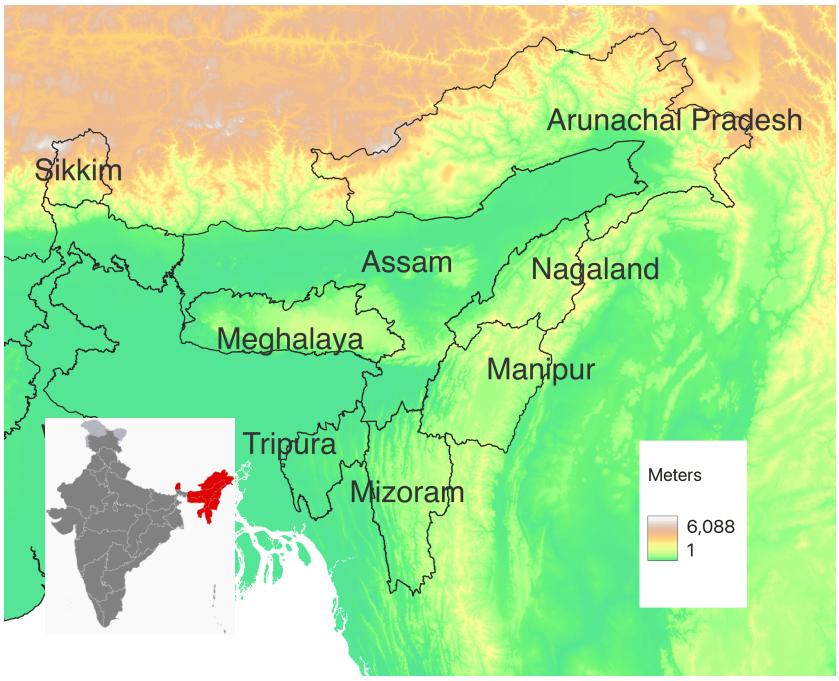


Figure 2: Elevation map of Northeast India with inset map of its location in India.

[12] Scott's narrative on the stateless societies of Highland Southeast Asia largely ends with the colonial era, when state structures were finally able to penetrate deeply among indigenous peoples.

[13] A similar pattern characterized southwestern China, where rugged terrain long constrained even powerful centralized states.

Anthropological accounts of the region emphasize a pronounced *hill–valley* dichotomy (Leach, 1947, 1960; Van Schendel, 2005). Valley polities were hierarchical and centralized, often ruled by kings with standing armies, while hill societies were organized around autonomous villages governed by petty chiefs or councils of elders. The former maintained written administrative traditions, whereas the latter relied almost entirely on oral transmission.

By the early nineteenth century, the British had annexed the Assam region to the west of present-day Nagaland (see Figure 2), consolidating political and military control by the mid-century following the defeat of the Burmese, who had previously annexed the Ahom kingdom. Assam province was soon identified as a zone of commercial potential, particularly for tea cultivation, which expanded rapidly from the 1830s. These tea estates constituted large, immobile investments situated along a volatile frontier. Almost immediately, plantation settlements and adjacent Assamese villages became targets of raids by neighboring hill communities, who viewed the expanding colonial presence as an intrusion into long-standing zones of autonomy. Contemporary administrative accounts describe these incursions as frequent, costly, and difficult to deter given the rugged terrain and the absence of centralized authority in the hills (Mackenzie, 2012; Gait and Gait, 1906).

These security concerns increasingly shaped British frontier policy, setting the stage for a gradual and spatially uneven expansion of colonial administration into the surrounding highlands (Cambridge University Library, 1882).

2.2 Local Population Characteristics

A defining feature of Naga society at the time of British contact—emphasized by nearly all anthropologists familiar with the region—was its village-based organization (Mills, 1922; Hutton, 1928; Furer-Haimendorf, 1976; Wouters, 2017). Individuals identified primarily with their village rather than with any broader political or ethnic unit.[14] Customary law applied only within village boundaries, and relations between villages frequently involved armed conflict.[15]

This persistent insecurity is reflected in the spatial organization of settlements: villages were almost invariably located on hilltops or elevated ridges, never in valleys, providing strategic advantages against attack (see Figure C3). Religious, economic, and political

[14]Of the 1155 ethnic groups in the Ethnographic Atlas, 45% are classified as acephalous, while only 11% fall under state-level political organization.

[15]The practice of headhunting, in particular, played a central role in social life and served as a rite of passage for young men (Gershman and Mumladze, 2024).

life rarely extended beyond the village, and linguistic fragmentation was extreme, with neighboring villages often speaking mutually unintelligible languages. As the former District Commissioner Hutton observed,

> "At the time of the British acquaintance with them, many villages were still isolated from their neighbours by thickly forested hills and by rivers unfordable for several months in the year, and they tended to be on terms of head-hunting warfare with their nearest neighbours, or at best of an armed and ever suspect truce, almost every village being an independent political entity."

The village thus constituted the primary in-group, bearing little resemblance to the hierarchical political structures typically associated with state societies.

2.3 Annexation Timing

By 1839, the British had firmly established their presence in Assam (Mackenzie, 2012). Following their defeat of the Burmese Empire, which had briefly annexed the Ahom kingdom, the British took formal control of the province (Pollak, 1978). The rapid expansion of tea cultivation soon exposed the vulnerability of the colonial frontier: Assam was surrounded by rugged hills inhabited by autonomous tribal communities, and raids on plantations and frontier settlements became increasingly common.[16]

2.3.1 Initial Non-Interference Policy

However, colonial authorities initially responded by adopting a formal policy of non-interference toward the hill tracts, motivated by fiscal caution and the belief that these regions offered little economic return (Reed, 1942). Senior officials argued that annexation would be costly, administratively burdensome, and unlikely to generate revenue, and thus sought to confine British authority to the plains while relying on frontier policing and defensive posts.

This approach rested on the assumption that hill societies—lacking centralized political authority—could be deterred without direct rule. In practice, however, raids persisted, and local officials facing immediate security threats increasingly pressed for punitive expeditions and limited territorial extensions. These ad hoc responses gradually undermined the principle of non-interference.

[16] See Figure A3 in the Appendix for a historical narrative of the initial annexation attempt and ensuing raids.

In the Naga Hills, raids during the 1840s prompted requests from frontier officials for formal annexation (Mackenzie, 2012). While a small number of military posts were established along the foothills, higher authorities repeatedly rejected calls for deeper intervention. In a 1850 directive, Governor-General Dalhousie explicitly opposed annexation, arguing that it would be costly, unproductive, and unnecessary for frontier security (Mackenzie, 2012).

Zooming into the Nagaland region the raids by Naga villages on Assam in the 1840s caused the Principal Assistant to the Governor General's Agent to request the British Government for formal annexation (Mackenzie, 2012). A few military posts were established on the foothills for security but not beyond. In fact what happened was the very opposite of annexation. Higher-ranked officials imposed a strict policy of non-interference. In a commanding tone Dalhousie said the following in response to annexation requests,

> "I dissent entirely from the policy which is recommended of what is called obtaining a control, that is to say, of taking possession of these hills, and of establishing our sovereignty over their savage inhabitants. Our possession could bring no profit to us, and would be as costly as it would be unproductive" (Mackenzie, 2012).[17]

2.3.2 Formal Annexation

By the 1870s, however, disagreements between ground officials and such superiors living in distant cities had boiled to a tilting point. In the spring of 1874, Captain Johnstone unilaterally brought two Naga villages under his administration owing to security threats. Soon he received a letter rebuking his decision. 'His Excellency in Council considers that Captain Johnstone ought not to have taken this step without consulting superior authority,' it warned (Johnstone, 1896). A few weeks later he annexed an additional village. In the months that followed raids in neighboring regions had frightened officials causing news to reach the highest office of the empire. The Secretary of State in London finally acquiesced saying that 'the attitude of indifference to the internecine feuds and the raids of the Nagas... could no longer be maintained without discredit to the British Administration.' And thereafter an eastward march began.

Annexation itself proved paradoxical. Newly incorporated villages were brought under British authority to prevent raids, only to be followed by incursions from villages

[17] Dalhousie continued, "The only advantage which is expected from our having possession of the country by those who advocate the measure, is the termination of the plundering inroads which the tribes now make from the hills on our subjects at the foot of them. But this advantage may more easily, more cheaply, and more justly be obtained by refraining from all seizure of the territory of these Nagas, and by confining ourselves, to the establishment of effective means of defence on the line of our own frontier."

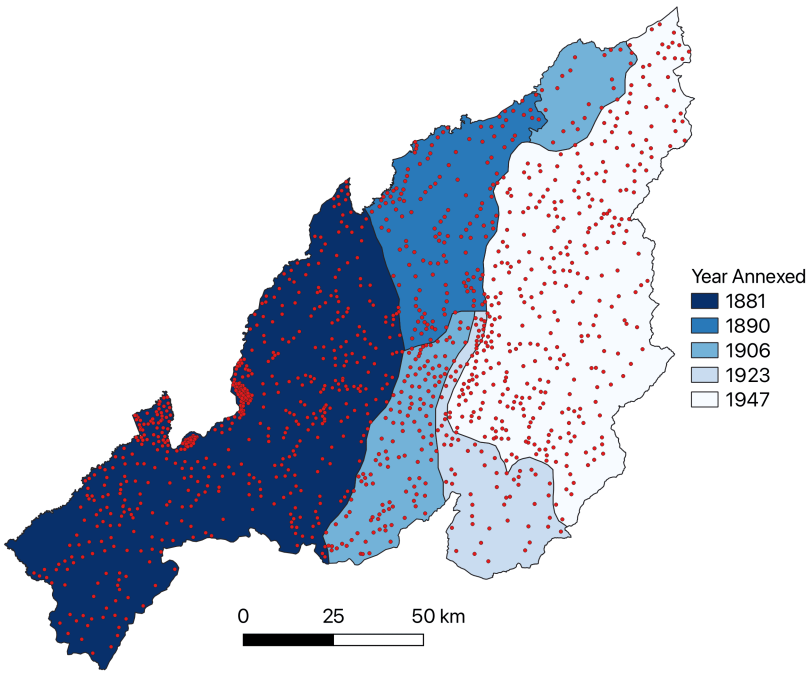


Figure 3: Map showing the staggered timing of annexation. Red dots indicate village centroids.

beyond the frontier. The administrative boundary was repeatedly extended to incorporate these areas, generating a gradual, village-by-village expansion.[18] By 1881, the south-western regions had been incorporated as the "Naga Hills District" of Assam province (see Figure 3). By 1887, senior officials openly anticipated further expansion, with the Chief Commissioner declaring that the region would eventually be absorbed into fully administered districts. Three years later, more areas were incorporated.

Figure 3 illustrates the staggered nature of this process, which proceeded gradually from west to east (Sema, 1985). The areas shown in white were incorporated last, with the final stage occurring after India's formal independence in 1947.

Taken together, these historical accounts suggest that the decision to incorporate the Nagaland region into formal state rule was not motivated by expectations of material extraction, commercial profitability, or the pre-existing economic status of local populations. Contemporary administrative correspondence repeatedly emphasized the limited revenue potential of the hills, the absence of taxable surplus, and the high fiscal and logistical costs of direct administration. Instead, the extension of state authority was driven pri-

[18]The absence of centralized political authority required annexation to proceed at the village level.

marily by persistent frontier security concerns, particularly the need to protect immobile colonial investments in the Assam plains and to curb recurrent raids originating from the surrounding highlands. State expansion into Nagaland thus emerged as a defensive response to perceived threats along a volatile frontier rather than as a forward-looking strategy of economic incorporation or extraction.

2.4 What did it Mean to be Administered?

Historians often point out that state administration in the region was *light* (Guha, 2017), meaning, it was intended first-and-foremost to maintain law and order so as to prevent further raids. In fact the first policy of the British state was to ban all tribal feuds and warfare. All weapons were confiscated and village fortifications were to be removed (Reed, 1942). Prior to annexation the tribes in this region were known for their practice of head-hunting, which involved chopping off the head of an enemy following a raid. So deeply institutionalized was this practice that participation in it served as a rite-of-passage for boys.[19] With the new foreign rule, this practice was forever ended. Military outposts and jails were established and a large security personnel was stationed.

In terms of administration the British established a two-tier system of village governance, what came to be called the *gaonbura-dobashi* system of governance. A *gaonbura* (which is an Assamese word for 'village elder') was selected from each clan in a village. To legitimize his role he was given a plain-red shawl, a concrete mark of authority that over time would become highly-coveted.[20] The role of the *gaonbura* was to collect a house tax and report monthly to the District Commissioner. These revenues were expected as payment for protection and security. In other words, it created a social contract between state and society.[21] The *dobashi* (meaning 'man of two words') served as interpreter to the colonial officers and acted as their eyes and ears in the village, and each was put in charge of several villages. Carefully selected based on their knowledge of customary law the *dobashis* also assisted in dispute resolution (Sema, 1985).

[19] The effect on head-hunting ban was apparent for certain visitors. In 1937 the D.C, in one of his once-in-a-while visits across the border, was accompanied by the anthropologist Christoph von Fürer-Haimendorf (mentioned earlier) who noted the discrete jump in atmosphere as they entered a trans-frontier village. "Walking through the village," he would note, "you recognize the houses of the renowned heroes, for the taking part in a successful head-hunting raid means another plaited cane ball on the string hanging from the gable of the house; on one string I counted no less than thirty trophies [skulls]" (von Fürer-Haimendorf, 1938).

[20] During the Second World War Ursula Graham Bower, a documentarian working with the locals, was put in charge of mobilizing some villagers to serve as non-combatant officers and spies. Some of her men requested the government issue them the red shawl so as to legitimize their authority as employees of the British state (Bower, 1950).

[21] From the Gazetteer of Naga Hills and Manipur, 1905 (Allen, 2010).

Investments in human capital and infrastructure followed thereafter. The former was delegated largely to missionaries and came in the form of conversion as well as investments in education and healthcare. Villages were also connected by bridle paths to facilitate connectivity, and the villagers in turn were required to maintain them regularly (Reed, 1942). Figures A5 and A6 give a few statistics on revenues and expenditures in the district from the period of British rule.

Therefore, treatment in this study is a bundle of interventions that one can clearly associate with standard interpretations of the state: political centralization and the redirection of political authority, public goods provision, law-and-order maintenance. How would this set of institutional shocks reshape society? The rest of the paper explores these questions.

3 Data and Outcome Variables

1. Outcome Variables

To study the long-run effects of historical state exposure, I draw on multiple complementary data sources. Measures of wealth and inequality are constructed using the Demographic and Health Survey (DHS, 2015), which provides individual-level wealth outcomes and allows for geolocation at the village level. I additionally use census data from the Socioeconomic High-resolution Rural–Urban Geographic Platform for India (SHRUG), compiled by Asher et al. (2021) and of the Registrar General and Census Commissioner (2011). This source provides village-level information on public goods provision and other socioeconomic characteristics. Additional SHRUG datasets used in the analysis include the Socioeconomic and Caste Census (2011) and data on politicians' asset holdings.

2. Control Variables

To account for geographic and environmental confounders, I assemble controls from multiple independent sources. Elevation is measured using the Digital Elevation Model from NASA's Shuttle Radar Topography Mission ((SRTM), 2013). Climate controls include long-run precipitation and temperature from the Climatologies at High Resolution for the Earth's Land Surface Areas, version 2.1 (Karger et al., 2017), as well as rainfall from the Climate Hazards Group InfraRed Precipitation with Station Data (CHIRPS), version 2.0 (Funk, Peterson, Landsfeld, Pedreros, Verdin, Shukla, Husak, Rowland, Harrison, Hoell, et al., Funk et al.). Soil characteristics are obtained from SoilGrids (Poggio et al., 2021). All geographic variables are spatially matched to villages using GIS-based methods.

3. Historical Maps

To measure historical state exposure intensity, I georeference the map provided by Sema (1985). Drawing on primary sources from the National Archives of India, this map documents administrative boundaries and the year of annexation for the entire region. I complement this with a second georeferenced historical map—the *Map of the Tea Countries of Assam & Cachar* compiled by Major Briggs in 1873 (*open source: link*). This map is used to identify the spatial distribution of colonial tea estates that I use to construct my instrument.

4. Additional Data

To study questions on individual preferences I use data from the Center for the Study of Developing Societies (CSDS-Lokniti). The NGO conducts election-related surveys in every state in India during the assembly elections. I obtain data for Nagaland for the year 2008. The variables of interest from this dataset capture an individual's demand for state expansion.

4 Empirical Strategy

4.1 OLS

To study the impact of state exposure on economic outcomes I first employ an OLS framework that uses decades under the state as the key independent variable.

$$y_v = \alpha + \beta \times \text{State Exposure}_v + \mathbf{X}_v' \boldsymbol{\gamma} + \epsilon_v \tag{1}$$

where State Exposure$_v$ is the number of decades under the state and $\mathbf{X}_v$ is a vector of village-level geographic and agro-climatic controls. The coefficient of interest is β, which captures the association between longer exposure to state institutions and the outcome y_v, holding fixed time-invariant geographic and environmental characteristics. I cluster standard errors at the assembly constituency level to account for correlated shocks within political jurisdictions. In addition, I report Conley (1999) HAC standard errors that allow for arbitrary correlation in the error terms across observations within 10- and 20-kilometer distance bands.

4.1.1 Sample Restriction

In all subsequent analyses, I exclude the district of Dimapur, located in the southwestern part of the state. Historically, the Dimapur plains lay outside the Naga hill areas and were not inhabited by Naga communities prior to colonial rule (Dzuvichu, 2013). The area became administratively associated with Nagaland only following British expansion and later postcolonial boundary reorganization. Over time, Dimapur developed a markedly different demographic profile from the rest of the state, with substantial in-migration from both within Nagaland and neighboring regions of India. As a result, its population today is considerably more heterogeneous in ethnic composition and settlement history than the predominantly Naga, village-based highland districts that form the focus of this study. Nonetheless, the results are robust to including it (see Table-B1). Furthermore, I exclude urban clusters in the DHS as well as towns in the census data. This is to ensure that the results are not driven by migration, since urban areas attract migrants primarily from surrounding villages.

4.2 Instrumental Variable Construction

To address concerns of endogeneity—since annexation may have occurred selectively—I construct an instrumental variable that measures each Nagaland village's exposure to British tea estates located in the neighboring Assam region as of 1873, seven years before formal annexation began. The location of tea estates was obtained from a map created by Major Briggs, a British colonial officer, which I geo-reference for my analysis.[22] The instrument exploits spatial variation in the distribution of colonial tea plantations, a major form of fixed British capital along the northeastern frontier, which generated localized security concerns and shaped the timing of state expansion into the hills.[23]

Distance Calculation: For each village v and tea estate e, I compute D_{ve} as the Euclidean distance (in kilometers) between the village centroid and the centroid of estate e. Distances are calculated using a planar projected coordinate reference system to ensure metric accuracy. This measure captures the minimum distance that a raiding party originating from village v would need to traverse to reach estate e. Such distance-based approaches are commonly used in historical studies (Nunn, 2008; Becker and Woessmann, 2009), including recent ones on state exposure (Heldring, 2021), slave market access (Corno et al., 2025), and military reach (Riano and Valencia Caicedo, 2024).

Instrument Formulation: Village-level exposure to colonial tea estates is aggregated

[22] Click here for map link: link.

[23] See Reed (1942, p. 107 , p. 108, p. 119) for some details of raids on British tea estates.

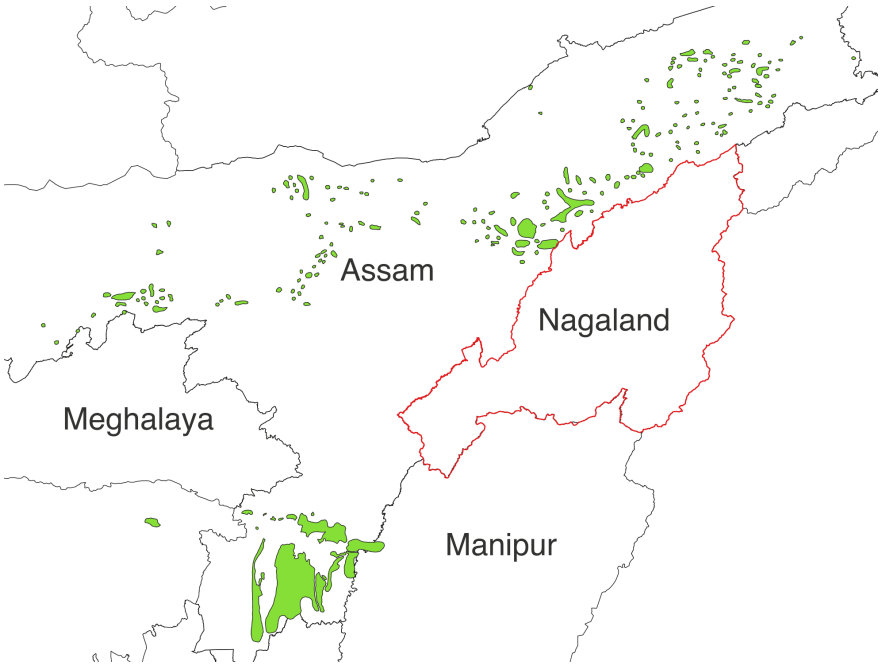


Figure 4: British tea estates in Assam in 1873 (green) and the state boundary of Nagaland in red.

using an inverse-distance weighting scheme:

$$\text{Tea Threat}_v = \sum_{e:\ e \in \text{Assam}} \frac{A_e}{D_{ve}} \tag{2}$$

where A_e denotes the area of tea estate e (in square kilometers) and D_{ve} denotes the distance from village v to estate e (in kilometers). The weighting scheme assigns greater influence to larger estates and to estates located closer to a given village, reflecting the idea that both scale and proximity increased the salience of security concerns. Structurally, this measure is analogous to market-potential and market-access indices commonly used in trade models, which aggregate economic mass discounted by distance (Donaldson and Hornbeck, 2016; Jacks and Novy, 2018).[24]

[24]In these papers, market access (or market potential) is constructed as a weighted sum of surrounding economic activity, where weights decline with bilateral trade costs or distance. In Donaldson and Hornbeck (2016), a county's market access is defined as the sum of other counties' agricultural output or population (the economic mass in the numerator), discounted by iceberg trade costs implied by the railroad network and geography (the denominator). Changes in market access arise from reductions in effective trade costs induced by railroad expansion. Similarly, Jacks and Novy (2018) construct a country-level market potential index that aggregates trading partners' GDP, discounted by bilateral distance and other trade frictions, to capture access to external demand. In both cases, the numerator captures the scale of nearby economic activity, while the denominator reflects distance- or cost-based attenuation, mirroring the inverse-distance aggregation used here.

More recently, Zhao (2023) raises issues with distance-based instruments, particularly in settings where diffusion operates first, from a singular location, and second, through intangible, non-rival goods such as ideas, technologies, or norms, whose transmission need not depend strongly on physical proximity. My setting mitigates this concern for two reasons. First, state expansion required direct physical presence: administrators had to enter the region, establish an administrative apparatus, and deploy bureaucratic and military personnel. As a result, distance plausibly constrained the movement of these tangible state inputs, making proximity a meaningful determinant of exposure. Secondly, the distance measure is not constructed to a single point but rather to a set of estates distributed across space. This feature reduces sensitivity to arbitrary location choices and better reflects the spatial footprint of state penetration, which operated through multiple administrative and extraction nodes rather than a single center.

Interpretation: The Tea Threat instrument measures the cumulative security exposure faced by each village due to nearby concentrations of colonial tea production. Higher values indicate villages that were closer to larger tea estates and therefore posed greater potential risk to British capital. According to the historical mechanism, such villages were more likely to be annexed earlier as part of efforts to secure plantation infrastructure, resulting in longer subsequent exposure to colonial and post-colonial state institutions. Conditional on geographic characteristics, the spatial distribution of tea estates affects long-run outcomes only through its impact on the timing of state incorporation.

The instrumental variables estimation proceeds in two stages. The first stage regresses state exposure on the instrument and controls:

$$\text{State Exposure}_v = \pi_0 + \pi_1 \times \text{Tea Threat}_v + \mathbf{X}_v'\pi_2 + \upsilon_v \tag{3}$$

where Tea Threat_v is the inverse-distance-weighted measure of exposure to British tea estates, $\mathbf{X}_v$ contains the same geographic and environmental controls as in equation 1, and π_1 captures the relationship between tea estate proximity and annexation timing.

The second stage estimates the causal effect of state exposure on outcomes using the predicted values from the first stage:

$$y_v = \alpha + \beta \times \widehat{\text{State Exposure}}_v + \mathbf{X}_v'\boldsymbol{\gamma} + \varepsilon_v \tag{4}$$

where $\widehat{\text{State Exposure}}_v$ denotes the fitted values from equation 3, and β is the parameter of interest, capturing the causal effect of an additional decade under the state on outcome y_v.

5 Main Results

5.1 OLS

This subsection explores correlations by using the historical state exposure measure as the main independent variable.

5.1.1 First-Order Moments

Table 1 presents OLS estimates of the relationship between historical state exposure and a range of economic outcomes at both the individual and village levels. Panel A reports individual-level estimates using DHS microdata, while Panel B aggregates outcomes to the village level. The outcomes span multiple dimensions of economic development: columns (1) and (2) measure household wealth using the DHS wealth score and index; columns (3) and (4) capture human capital through literacy rates and years of schooling; column (5) examines child mortality as the 'number of children born to a woman who have died'; and column (6) measures the share of the workforce working in agriculture as a proxy for structural transformation.

Across all outcomes, longer exposure to the state is associated with substantial improvements in average economic outcomes. A one-decade increase in state exposure raises individual wealth scores by 0.96 units (or 0.15 standard deviations of the mean) and increases years of schooling by 0.4 years. Literacy rates rise by 3.5 percentage points, child mortality drops by 0.9 percentage points, and the likelihood of working in agriculture declines significantly, consistent with a shift toward non-agricultural livelihoods. These patterns are mirrored at the village level in Panel B, suggesting that the results are not driven by within-village compositional changes.

The magnitudes are economically meaningful. Given that the mean wealth score in the sample is negative and highly dispersed, the estimated effects imply that state exposure materially reshaped living standards rather than generating marginal improvements. Importantly, these gains coexist with rising inequality, as shown visually in Figure 1 and formally analyzed below. Together, these results indicate that the state acts as a catalyst for economic transformation, but not in a distributionally neutral manner.

5.1.2 Inequality

Table 2 examines the relationship between historical state exposure and within-village economic inequality using three complementary measures derived from the DHS wealth index. Column (1) uses the standard deviation of the wealth score, which captures overall

Table 1: OLS Estimates of State Exposure on Economic Outcomes

	Panel A: Individual-Level Outcomes					
	(1) Wealth Score	(2) Wealth Index	(3) Literacy Rate	(4) Years of Schooling	(5) Child Mortality	(6) Working in Agriculture
State Exposure$_{iv}$	0.959	0.140	0.035	0.429	-0.009	-0.058
	(0.132)***	(0.020)***	(0.007)***	(0.067)***	(0.004)**	(0.018)***
	{0.184}***	{0.028}***	{0.009}***	{0.091}***	{0.006}	{0.016}***
	[0.189]***	[0.028]***	[0.009]***	[0.084]***	[0.006]	[0.018]***
Controls	✓	✓	✓	✓	✓	✓
Observations	5,934	5,934	5,340	5,934	5,934	378
R-squared	0.166	0.151	0.162	0.172	0.048	0.160
Mean dep. var.	-3.308	2.405	0.728	6.396	0.115	0.747
	Panel B: Village-Level Outcomes					
	(1)	(2)	(3)	(4)	(5)	(6)
State Exposure$_{v}$	0.779	0.114	0.024	0.314	-0.010	-0.045
	(0.155)***	(0.024)***	(0.007)***	(0.070)***	(0.004)**	(0.025)*
	{0.161}***	{0.024}***	{0.008}***	{0.076}***	{0.005}	{0.022}**
	[0.166]***	[0.025]***	[0.006]***	[0.064]***	[0.005]*	[0.013]***
Controls	✓	✓	✓	✓	✓	✓
Observations	326	326	326	326	326	92
R-squared	0.300	0.283	0.216	0.235	0.112	0.276
Mean dep. var.	-3.267	2.413	0.732	6.442	0.119	0.685

Notes: For Panel A (B) the unit observation is an individual (a village). "State Exposure" is the number of decades under the state. Controls include geographic and agro-climatic variables provided by the DHS, and the number of observations in each cluster (and age in Panel A). Standard errors in parentheses are clustered at the assembly constituency level. Standard errors in curly (square) brackets are Conley spatial HAC with a 10 (20) km cutoff. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

dispersion. Column (2) employs the interquartile range, measuring inequality in the middle of the distribution between the 25th and 75th percentiles. Column (3) uses the difference between the top and bottom deciles, reflecting inequality at the extremes of the wealth distribution.

Looking at Table 2, a one-decade increase in state exposure raises the within-village standard deviation of wealth by 0.13 units, increases the interquartile range by 0.21 units, and widens the gap between the top and bottom deciles by 0.28 units. These effects are economically meaningful relative to the dispersion of inequality in the sample. To use an alternate translation, every 25 years of additional state exposure raises within-village inequality by about 0.2 standard deviations. Together with the earlier results on average outcomes, these findings indicate that state exposure reshapes the distribution of economic

Table 2: OLS Estimates: Within-Village Inequality

	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
State Exposure$_v$	0.133	0.213	0.279
	(0.062)**	(0.092)**	(0.185)
	{0.059}**	{0.090}**	{0.171}*
	[0.065]**	[0.111]*	[0.184]
Controls	✓	✓	✓
Observations	326	326	326
R-squared	0.176	0.146	0.140
Mean dep. var.	4.534	6.159	11.55
SD dep. var.	1.610	2.937	4.692

Notes: The unit of observation is a village. "State Exposure" is the number of decades under the state. Controls include geographic and agro-climatic variables provided by the DHS, and the number of observations in each cluster. Standard errors in parentheses are clustered at the assembly constituency level. Standard errors in curly (square) brackets are Conley spatial HAC with a 10 (20) km cutoff. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

resources within villages, generating stratification alongside aggregate economic gains.

Nonetheless, a concern remains that unobserved factors may be driving these findings so far. For example, early-incorporated villages may have possessed latent factors—such as greater internal hierarchy—that made them both more likely to be annexed and more likely to experience divergent economic trajectories. Therefore, I turn to an instrumental-variable approach that addresses potential bias from unobserved determinants of annexation timing.

5.2 IV Results

Table 3 reports instrumental-variable estimates of the effect of state exposure on within-village inequality. Panel A presents the first stage and reduced-form relationships. Column 1 of this panel provides the estimate of π_1 from equation 3. Exposure to tea estates strongly predicts earlier annexation: villages facing greater colonial security pressure experienced significantly longer periods under state rule. The first-stage coefficient is large and precisely estimated, alleviating concerns about weak instruments.

The reduced-form results show that tea exposure is also positively associated with multiple measures of inequality, including the standard deviation of wealth, the interquartile range, and the gap between the top and bottom deciles. These patterns suggest that

Table 3: IV Estimates of State Exposure on Within-Village Inequality

Panel A:	**First Stage**	**Reduced Form**		
	(1) State exposure in decades	(2) Standard deviation	(3) Interquartile range	(4) Top minus bottom decile
Tea Threat$_v$	0.626	0.218	0.370	0.626
	(0.115)***	(0.055)***	(0.080)***	(0.158)***
	{0.118}***	{0.057}***	{0.079}***	{0.156}***
	[0.134]***	[0.047]***	[0.094]***	[0.128]***
F-stat (instruments)	29.708			
Controls	✓	✓	✓	✓
Observations	326	326	326	326
R-squared	0.782	0.196	0.164	0.167
Mean dep. var.	10.44	4.534	6.159	11.55

Panel B:	**Second Stage Estimates**		
	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
State Exposure$_v$	0.349	0.590	1.000
	(0.107)***	(0.182)***	(0.298)***
	{0.111}***	{0.177}***	{0.321}***
	[0.108]***	[0.213]***	[0.299]***
Controls	✓	✓	✓
Observations	326	326	326
Mean dep. var.	4.534	6.159	11.55

Notes: The unit of observation is a village. "State Exposure" is the number of decades under the state. Panel A reports first-stage and reduced-form relationships between the instrument (threat to tea estates) and inequality outcomes. Panel B reports IV estimates of state exposure instrumented by tea threat. Controls include geographic and agro-climatic variables provided by the DHS, and the number of observations in each cluster. Standard errors in parentheses are clustered at the assembly constituency level. Standard errors in curly (square) brackets are Conley spatial HAC with a 10 (20) km cutoff. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

the mechanism linking colonial expansion to inequality operates through state exposure rather than through direct economic spillovers from tea cultivation.

Panel B presents the second-stage IV estimates (β from equation 4). Instrumented state exposure has a sizable causal effect on inequality: an additional decade under the state increases the within-village standard deviation of wealth by 0.35 units and widens the interquartile range by 0.59 units. The top–bottom decile gap also rises sharply, indicating that inequality is driven in part by gains accruing to the upper tail of the wealth

distribution.

Notably, the IV estimates are larger than their OLS counterparts. This likely arises from attenuation bias in OLS due to measurement error in coding annexation timing. In particular, historical imprecision in estimating annexation timing—arising from boundary changes and incomplete administrative records—would generate classical measurement error that biases OLS estimates toward zero. An additional source of measurement error arises from the spatial displacement ("jittering") of DHS cluster locations to protect respondent confidentiality. In rural areas, DHS cluster centroids are randomly displaced by up to 5 km, with 1% displaced by as much as 10 km. Because key variables are constructed using geospatial distances, this random displacement introduces classical measurement error that also attenuates OLS estimates toward zero.

Together, the IV estimates provide evidence that state expansion not only raises average incomes but also generates persistent economic stratification within previously egalitarian communities.

5.2.1 Robustness to Controlling for Other Regional Factors

However, there still remains the potential concern that proximity to tea estates may be correlated with other features of the historical landscape that independently shaped long-run inequality. Two factors, in particular, merit attention.



Figure 5: A map of historical locations: Sibsagar was the main historical capital of the Ahom kingdom. The blue line indicates the Manipur road built by the British to facilitate trade between Manipur and Assam.

The Ahom Kingdom—a powerful state that ruled the northern parts of Assam valley for six centuries before British annexation (Barua, 1930; Guha, 1983)—might have exerted

Table 4: Robustness of IV Estimates of State Exposure

Panel A:	**Controlling for distance to the Ahom Kingdom capital**		
	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
State Exposure$_v$	0.311**	0.568**	0.888**
[F-$Stat$ = 23.362]	(0.128)	(0.221)	(0.361)
Panel B:	**Controlling for nearest distance to the Manipur-Assam trade road**		
	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
State Exposure$_v$	0.339***	0.554**	1.059***
[F-$Stat$ = 27.072]	0.131)	(0.235)	(0.369)
Panel C:	**Controlling for distance to nearest contemporary railway station**		
	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
State Exposure$_v$	0.369**	0.690**	1.109**
[F-$Stat$ = 20.280]	(0.173)	(0.278)	(0.503)
Panel D:	**Controlling for distance to nearest point on Assam-Nagaland border**		
	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
State Exposure$_v$	0.440**	0.849**	1.292**
[F-$Stat$ = 14.356]	(0.213)	(0.355)	(0.641)

Notes: The unit of observation is a village. "State Exposure" is the number of decades under the state. Controls include geographic and agro-climatic variables provided by the DHS, and the number of observations in each cluster. For Panel C, with the exception of one, all railway stations lie outside the state. Standard errors in parentheses are clustered at the assembly constituency level. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

varying degrees of influence across the Nagaland region despite not having formally annexed them the way the British and Indian states did, and that proximity to their political centers potentially shaped pre-colonial social organization. Second, the Manipur Road, as named and constructed by the British to connect the Assam plains to Burma via the Tamu road in Manipur, served as a regional artery for trade. Proximity to this road may have facilitated market integration distinct from annexation timing (see Figure 5 for a map of these locations).

If tea estates were systematically located closer to past kingdoms or to the road network, the instrument could be capturing these alternative historical influences rather than the security-driven annexation process. And although one could frame the road infrastructure as itself a 'state effect' (Dell and Olken, 2020), the key argument in my study is more internal in the sense that state institutions restructure local and village politics and hierarchies.

To address these concerns, Table 4 re-estimates the IV specifications while controlling for distance to the Ahom Kingdom capital (Panel A) and nearest distance to the Manipur Road (Panel B).[25]

The results remain robust. Across all inequality measures—the within-village standard deviation of wealth, the interquartile range, and the gap between top and bottom deciles—the coefficients on state exposure are positive, statistically significant, and of similar magnitude to the baseline IV estimates reported in Table 3, suggesting that proximity to pre-colonial power centers or colonial-era trade infrastructure does not explain the core findings.

Another channel that could be operating underneath is contemporary (or post-annexation) market access. That is to say, despite the instrument being plausibly exogenous at the time of annexation, it might come to be correlated with other confounding factors in subsequent years. A defense to this argument may be made by attributing the state as responsible for facilitating market linkages in the first place. For instance, we know of the often quoted quip attributed to Adam Smith that *...Little else is requisite to carry a state to the highest degree of opulence from the lowest barbarism, but peace, easy taxes, and a tolerable administration of justice; all the rest being brought about by the natural course of things* (Stewart, 1861). However, this paper's argument throughout rests on the idea that it is changes in the distribution of power at the local level that bring about the observed outcomes. I therefore conduct two additional checks. First, panel C in Table 4 controls for distance to the nearest contemporary railway station, capturing access to transportation infrastructure that could independently affect economic outcomes and be correlated with state exposure. Likewise, Panel D controls for distance to nearest point on the Assam-Nagaland border to control for the effects of distance to the plains, if the concern is that proximity to the foothills mechanically drives the results. The results are robust to these inclusions.

Next, to alleviate other concerns about the instrument's exclusion restriction, I conduct a falsification check using another historical fact in the region.

[25] I use the city of Sibsagar in Assam as the capital of the Ahom Kingdom. Sibsagar was the longest serving capital, particularly at the height of Ahom's reach between 1540 and 1707. And while Ahom's capital did shift over the centuries of its rule, it occurred primarily around the region of Sibsagar.

5.2.2 Exclusion Restriction Assumption: A Falsification Test

To further assess the validity of the instrumental-variable strategy, I conduct a falsification test using the neighboring state of Manipur. The identifying assumption underlying the instrument is that proximity to British tea estates affected long-run economic outcomes only through its influence on the timing of state expansion into Nagaland, rather than through direct economic spillovers from tea cultivation itself. If this assumption holds, exposure to tea estates should predict inequality outcomes in Nagaland—where tea-driven security concerns plausibly shaped annexation—but not in regions where state incorporation followed a fundamentally different historical trajectory.[26]

Importantly, the falsification test is restricted to tribal-inhabited areas of Manipur, providing a particularly stringent comparison (see Appendix Figure C4 for a map of the study sample in Manipur). These hill areas are home to several historically tribal societies. However, unlike Nagaland, they were incorporated into a centralized political authority—the Kingdom of Manipur—largely simultaneously in the mid-nineteenth century (Reed, 1942).[27]

A stark historical fact underscores why Manipur constitutes a clean placebo. Historically, the kingdom of Manipur's administrative reach remained in a compact valley region. After obtaining muskets from the British in the early 19th century, the newly-crowned prince began a campaign of formal annexation of the hills surrounding their valley (Mackenzie, 2012). British officials initially intended for the Kingdom of Manipur to annex all tribal territory north of the Imphal Valley, including the entirety of present-day Nagaland (Reed, 1942). However, concerns about extending excessive territory to a potentially powerful competitor led the British to curtail Manipur's expansion. The kingdom's northern frontier was instead fixed at a limited distance from Manipur's capital fort—a boundary that would later solidify into Manipur's present-day border. This plan implies that the tribal areas of Manipur were not incorporated through tea-estate–driven security dynamics, but instead through an existing indigenous state structure. As a result, there is little meaningful within-region variation in state exposure in Manipur that could plausibly be linked to tea-estate proximity. Any correlation between the instrument and long-run inequality in these areas would therefore point to direct economic spillovers from tea cultivation rather than to the political channel emphasized in Nagaland.

[26] Nunn and Wantchekon (2011) conduct a similar falsification test in their study of the slave trade's impact on mistrust in which they use distance to slave ports as an instrument. While they find a strong reduced-form relationship for the case of Africa, the estimates for Asian and European countries is close to zero.

[27] The tribal-inhabited districts of Manipur as of 2015 (survey year of DHS data used) include Tamenglong, Senapati, Ukhrul, Chandel, and Churachandpur.

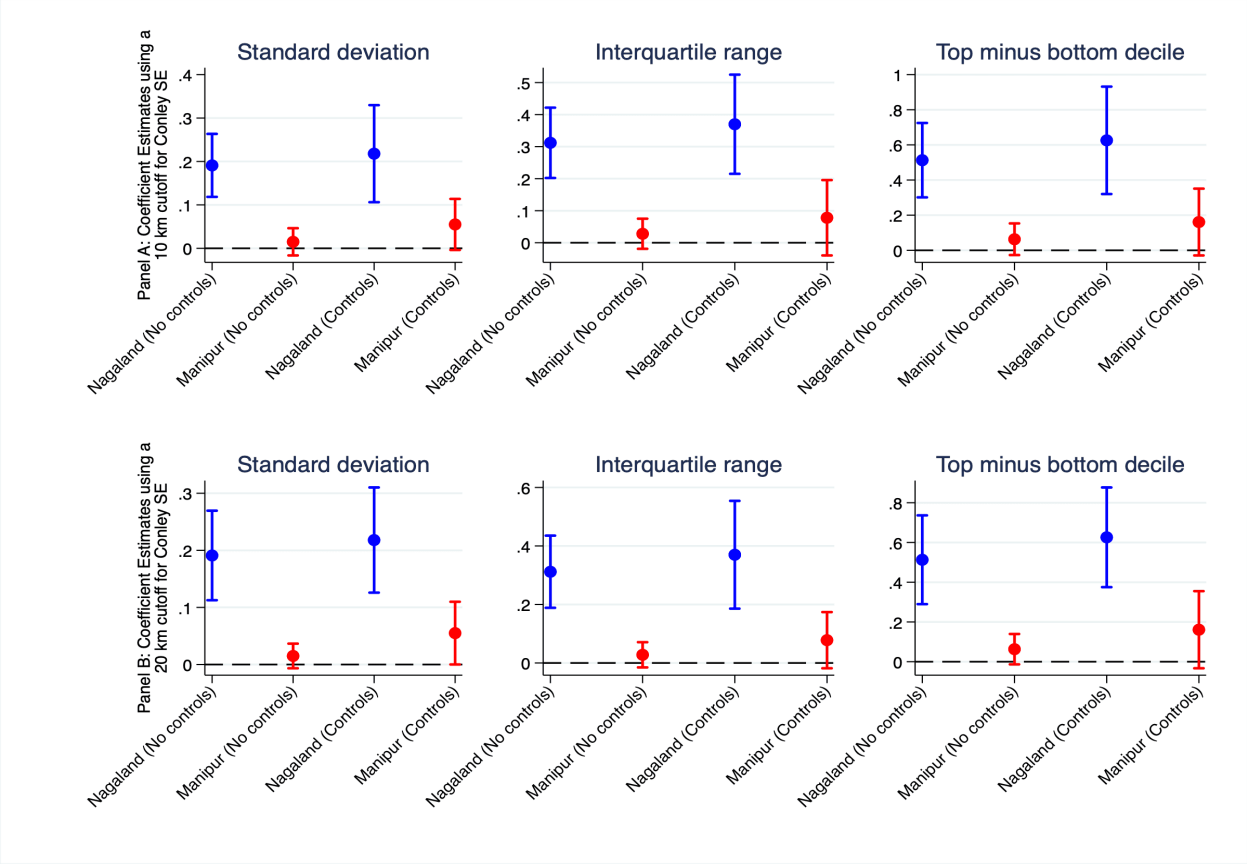


Figure 6: Reduced-form estimates: regressing inequality outcomes on the *Tea Threat* instrument separately for Nagaland (blue) and Manipur (red). Controls include geographic and ago-climatic variables. 95% confidence intervals are indicated by the vertical lines. The upper panel uses a 10 km cutoff to calculate Conley (1999) standard errors, while the bottom panel uses a 20 km cutoff.

Figure 6 presents estimates of the reduced-form regressions linking tea-estate exposure to within-village inequality (in both Nagaland and Manipur).[28] The upper row presents point estimates (and 95% confidence interval lines) of the reduced-form regression of the inequality outcomes on the instrument using a 10 km cutoff to calculate Conley (1999) standard errors, while the bottom row uses a 20 km cutoff: for Nagaland (blue), villages with greater exposure to nearby tea estates exhibit significantly higher dispersion in wealth across all three inequality measures, whether or not we include the geographic and agro-climatic controls. By contrast, the red dots suggest that the same relationship is much weaker in Manipur, with coefficients only a fraction of those for Nagaland, and not statistically significant at the 5% level.

[28] See Figure B4 in the Appendix for a distribution of the instrument's values between Nagaland and Manipur.

Therefore, we may conclude that the absence of a strong and robust set of reduced-form relationships in the tribal areas of Manipur lends more credibility that the exclusion restriction likely holds, at least to the extent that confounders do not drive the results in a meaningful way: proximity to tea estates does not mechanically predict inequality outside the specific historical context in which tea plantations shaped state expansion. The results here give assurance that the instrument operates through variation in state exposure rather than through direct economic effects of tea cultivation.

6 Channels of Persistence

Thus far, the results suggest that the state allows for new economic opportunities while simultaneously reshaping its distribution. The next section examines a few potential channels through which this stratification emerges: an emerging elite class who develop norms of reciprocity with non-elites. I report OLS estimates in this section.[29]

6.1 Wealth Gap: Political Elites vs. their Constituents

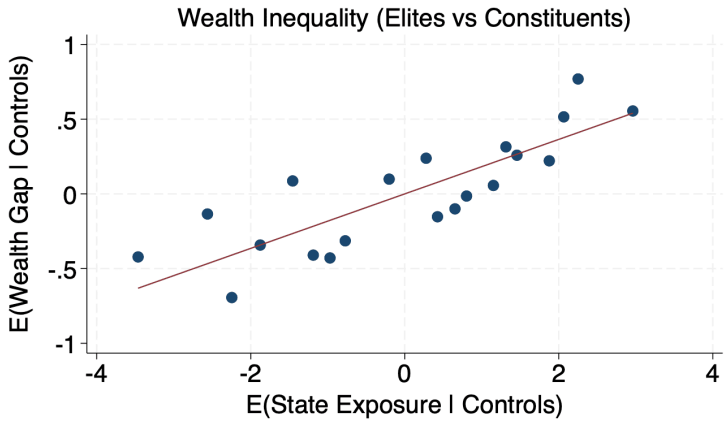


Figure 7: Binned scatter plot of the gap between assets held by political candidates and the annual per-capita consumption of the constituencies they represent. The unit of observation is a political candidate. Controls include constituency mean elevation in meters, mean terrain ruggedness, mean annual temperature, mean soil pH, mean annual rainfall, and a set of indicators for year of election.

To quantify elite–constituent divergence, I construct a measure of the wealth gap between political candidates and the populations they represent. For each candidate, I compute the difference between the logarithm of assets declared in election affidavits (for

[29] See Section B.6 in the Appendix for the corresponding IV estimates.

the years 2008 and 2013) and the logarithm of mean per-capita household wealth of the corresponding assembly constituency:

$$\text{Wealth Gap}_{ca} = \text{Log}(\text{Assets}_{ca}) - \text{Log}(\text{Mean Annual Income}_{a})$$

where c denotes a candidate, and a is the assembly constituency he/she represents.

Constituency-level wealth is measured using the Socioeconomic and Caste Census (2011), averaged across villages within each constituency. This measure captures the extent to which political elites accumulate assets relative to the economic position of the constituents they represent, providing a distributionally meaningful indicator of political stratification rather than absolute wealth alone.[30] To identify treatment exposure for a candidate, I identify where the centroid of their assembly constituency falls within Figure 3.

Figure 7 plots a binned scatter plot of the wealth gap outcome on state exposure, after partialling out geographic controls. We observe a strong positive relationship, suggesting widening gaps in economic status between political elites and their constituents the longer that candidate has been under the state.

Table 5: Political Elites: OLS Estimates of Wealth Gaps

	(1) Log Assets	(2) Education (in years)	(3) Wealth Gap
State Exposure$_v$	0.254	0.303	0.182
	(0.064)***	(0.064)***	(0.063)***
	{0.060}***	{0.057}***	{0.061}***
	[0.042]***	[0.063]***	[0.039]***
Controls	✓	✓	✓
Observations	343	331	343
R-squared	0.152	0.128	0.091
Mean dep. var.	15.25	11.85	5.592

Notes: The unit of observation is a political candidate. "State Exposure" is the number of decades under the state. All specifications control for elevation in meters, terrain ruggedness, mean annual temperature, mean soil pH, and mean annual rainfall. Standard errors in parentheses are clustered at the assembly constituency level. Standard errors in curly (square) brackets are Conley spatial HAC with a 10 (20) km cutoff. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Columns (1)–(3) of Table 5 relate constituency-level state exposure to the assets, educa-

[30] The SECC data does not provide data on village-level average wealth.

tion, and relative wealth position of political candidates. Across all specifications, longer exposure to the state is associated with substantially higher asset holdings and educational attainment among political elites. More importantly, column 3 shows that the wealth gap between candidates and the populations they represent increases significantly with state exposure.

The results from Table 5 therefore leaves us with a puzzle. Why would society tolerate this emerging inequalities of their elites, especially for those with more experience running state-level institutions?

In the next section I detail a possible explanation. The tolerance of such large wealth gaps—despite village-level social structures that historically emphasized egalitarianism—suggests the emergence of new normative frameworks. Rather than resisting elite accumulation, communities appear to have internalized expectations that political authority legitimately commands disproportionate economic returns in exchange for distributing access to state resources. The next section examines this reciprocal dynamic.

6.2 Public Sector Employment

Using data from the SECC, I study labor market outcomes, with an emphasis on structural change in employment types.

Table 6: OLS Estimates of Structural Change in Labor Markets

	(1) Share of population who are salaried	(2) Share whose income from public sector	(3) Share whose income from private sector	(4) Share whose income from agriculture	(5) Share of tax-paying households
State Exposure$_v$	0.025	0.021	0.003	-0.031	0.017
	(0.004)***	(0.003)***	(0.001)***	(0.005)***	(0.004)***
	{0.004}***	{0.004}***	{0.001}***	{0.006}***	{0.003}***
	[0.004]***	[0.003]***	[0.001]***	[0.004]***	[0.003]***
Controls	✓	✓	✓	✓	✓
Observations	1,045	1,045	1,045	1,045	1,045
R-squared	0.140	0.135	0.041	0.119	0.082
Mean dep. var.	0.188	0.160	0.0183	0.713	0.119

Notes: The unit of observation is a village. "State Exposure" is the number of decades under the state. All specifications control for elevation in meters, terrain ruggedness, mean annual temperature, mean soil pH, and mean annual rainfall. Standard errors in parentheses are clustered at the assembly constituency level. Standard errors in curly (square) brackets are Conley spatial HAC with a 10 (20) km cutoff. Significance levels are indicated by stars next to the corresponding standard errors: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6 examines whether longer exposure to the state alters the occupational structure of local economies by expanding access to salaried employment.

Across both specifications, longer state exposure is associated with a pronounced shift away from agriculture and toward salaried work. A one decade increase in state exposure raises the share of the population in salaried employment by approximately 0.25 percentage points. This expansion is driven overwhelmingly by growth in public-sector employment, whose coefficient is an order of magnitude larger than that for private-sector income, though the latter is also positive and statistically significant. Correspondingly, the share of individuals whose primary income derives from agriculture declines sharply.

Looking at sample means, while over two-thirds derive income from agriculture, 16% are employed by the public sector. And since an additional decade of state exposure raises this share by 2 percentage points, this pattern suggests a growing disparity in labor markets among society more broadly.

This pattern supports the hypothesis laid out by Eisenstadt and Roniger (1984) on patron-client relations. They argue that such an institutional order is characterized by a "package-deal" exchange between clients and a patron, which builds on and further entrenches inequality and differences in power. Consistent with this view, such patterns are more likely to emerge in settings where experience with the state is relatively recent or incomplete (Fukuyama, 2011). Eisenstadt and Roniger (1984) go on to say that this transition would further manifest in a growing trust of the state by society. The next section explores this.

6.3 Support for the State

Further supporting evidence of preference shifts comes from survey data. Here I test whether historical exposure to the state also shapes political attitudes toward state authority using individual-level survey data from the 2008 Lokniti–CSDS post-election study.[31] The survey includes questions on awareness of, and support for, the movement for a "Greater Nagaland," which seeks the political integration of all Naga-inhabited areas across existing state boundaries. This movement occupies a central place in Naga political identity and directly concerns the scope and legitimacy of state authority.

Table 7 reports IV estimates linking village-level state exposure to individual political attitudes. Column (1) shows that individuals residing in villages with longer exposure to

[31] CSDS, or the Center for the Study of Developing Societies, is a New Delhi-based organization that collects data on people's views and perceptions of their governments. These surveys are conducted either before or after key elections; for Nagaland's case I obtained the post-2008 state assembly election survey data. Individuals from only 18 of Nagaland's 60 assembly constituencies were surveyed, out of which only 15 are in my study region. Given that assembly constituency represents the most disaggregated geographic unit of observation and my treatment varies at this same level, the resulting degrees of freedom are insufficient for reliable instrumental variables estimation. Hence I only report OLS estimates for this set of findings.

Table 7: OLS Estimates of Support for State Expansion

	(1) 𝟙(Heard of movement)	(2) Support movement: Likert (1–5)
State Exposure$_v$	0.050***	0.091***
	(0.014)	(0.024)
Observations	703	703
R-squared	0.109	0.046
Mean dep. var.	0.831	3.458

Notes: The unit of observation is an individual. 'State Exposure' is the number of decades under the state. 𝟙(Heard of movement) equals 1 if an individual has heard of the movement for "Greater Nagaland," and 0 otherwise. 'Support movement' is measured on a five-point Likert scale: 1 = not at all justified; 2 = not justified; 3 = neither justified nor unjustified; 4 = justified; 5 = fully justified. Controls include age and gender. Standard errors clustered at the polling station level in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

the state are significantly more likely to have heard of the movement, suggesting greater political awareness or engagement. Column (2) shows that conditional on awareness, longer state exposure is also associated with stronger support for the movement, measured on a five-point Likert scale.

These preference shifts provide direct evidence of cultural change. Sustained state exposure doesn't just create material dependencies; it transforms how individuals conceive of political authority and legitimate governance. The fact that longer-exposed populations demand more state expansion—despite experiencing greater inequality—suggests internalization of hierarchical norms that persist through socialization and cultural transmission.

Discussion: Taken together, these three channels suggest the emergence and persistence of reciprocity norms. Elite wealth accumulation is tolerated rather than resisted (acceptance of hierarchy), public employment operates through patronage (expectations of reciprocal exchange), and populations demand further state expansion (legitimation of state authority). These patterns are consistent with the framework of Besley (2020) in which norms of reciprocity emerge in response to institutional shocks and persist via cultural transmission: the newly-bestowed power of the elites (the exogenous shock) allows them to expand patronage; this increased public job provision raises the relative payoff of 'state-compliant' types, expanding their population share, which further boosts the legitimacy of elites and sustains incentives for continued public expansion, generating and entrenching norms of reciprocal obligation.[32]

[32] In Besley (2020), the model is applied in the context of public goods provision and norms of tax evasion.

Moreover, the formation of reciprocal behavior in such evolutionary models operates on generational timescales. Villages first annexed in 1881 had been exposed to state institutions for 134 years by the time of my analysis, while those incorporated at independence in 1947 had experienced less than seven decades of state presence. In a region where stateless organization had prevailed for thousands of years (Scott, 2009), this represents a fundamental difference in the opportunity for new institutional logics to take hold. Bowles and Choi (2025), borrowing from Hodder (2014), use the term 'aggressive egalitarianism' to describe certain norms observed in pre-state societies that prevented the endogenous formation of hierarchy. If so, then an adjustment to a new set of norms more accepting of hierarchy would take several generations to become internalized.[33] Thus, in my setting, communities with six generations of state exposure would have had more time for hierarchical norms to become culturally embedded relative to communities where only three generations had lived under formal government.[34] This likely explains the persistence of inequality.

6.4 Alternate Channels

6.4.1 Educational Inequalities as a Key Driver?

An alternate explanation is that the increase in economic inequality associated with historical state exposure may simply reflect unequal human capital accumulation, rather than the emergence of new economic or political hierarchies (Wantchekon et al., 2015). In many settings, early access to state institutions expands formal schooling and administrative capacity in ways that can differentially benefit certain groups, potentially generating persistent inequality through education. To assess whether educational dispersion constitutes a primary channel linking state expansion to long-run inequality, I examine how historical state exposure affects within-village inequality in years of schooling. If education were the dominant mechanism, villages with longer state exposure should exhibit greater dispersion in educational attainment.

Table 8 examines whether historical state exposure translated into greater inequality in educational attainment within villages. Inequality in schooling is measured using three

However, its core idea can easily be extended to my setting. See, for example, Bisin (2020) on the model's possible extension to analyze occupational choice.

[33] Furthermore, the societies at the time of my study would likely be along a transition path.

[34] In a study of the historical state in Vietnam, Dell et al. (2018) also document persistence in norms in a setting with a similar ratio of differential treatment exposure to the duration of formal institutional convergence. The treated regions experienced approximately 150 additional years of exposure to the Dai Viet state; by the time outcomes are observed in the twenty-first century, both treated and control regions had been governed by the same formal institutions for roughly 150 years.

Table 8: Inequality in Schooling Years

	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
		Panel A: OLS	
State Exposure$_v$	-0.017	-0.087	-0.056
	(0.035)	(0.098)	(0.119)
Controls	✓	✓	✓
Observations	326	326	326
Mean dep. var.	3.599	4.967	9.153
		Panel B: IV	
State Exposure$_v$	-0.042	-0.175	-0.011
	(0.050)	(0.116)	(0.170)
Controls	✓	✓	✓
Observations	326	326	326
Mean dep. var.	3.599	4.967	9.153

Notes: The unit of observation is a village. "State Exposure" is the number of decades under the state. Controls include geographic and agro-climatic variables provided by the DHS, and the number of observations in each cluster. Standard errors in parentheses are clustered at the assembly constituency level. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

complementary indicators: the within-village standard deviation of years of schooling, the interquartile range, and the difference between the top and bottom deciles. All specifications include a common set of geographic and climatic controls.

Panel A reports ordinary least squares estimates. Across all three measures, the relationship between state exposure and schooling inequality is small in magnitude and statistically insignificant. The point estimates are close to zero, suggesting that simple cross-sectional correlations provide little evidence that villages with longer exposure to centralized state institutions exhibit greater dispersion in educational attainment.

Panel B presents instrumental-variables estimates, where state exposure is instrumented using tea-estate threat. Again, the results go against the hypothesis that state exposure acts primarily through widening educational disparities. If differential access to formal schooling and human capital accumulation were driving long-run inequality, we would expect to see a positive relationship between historical state exposure and measures of dispersion in schooling outcomes.

Therefore, these results indicate that educational inequality is unlikely to be the primary mechanism through which historical state exposure generated the broader increases in economic inequality documented elsewhere in the paper.

6.4.2 Conflict and Insurgency?

Another concern is that the estimated effects of state exposure may reflect persistent insecurity rather than institutional change per se. Nagaland has experienced episodes of insurgency and counterinsurgency (Wouters, 2018), raising the possibility that villages with longer state exposure differ systematically in conflict intensity and that the resulting fear, displacement, or militarization drives the observed welfare and inequality patterns.

Table 9: Incidence of Conflict

	(1) Conflict Incidence (OLS)	(2) Conflict Incidence (IV)
State Exposure	0.009	-0.005
	(0.007)	(0.008)
Year FE	✓	✓
Observations	1,650	1,650
Mean dep. var.	0.110	0.110

Notes: The unit of observation is an assembly constituency-year pair. 'State Exposure' is the number of decades under the state. Conflict Incidence counts the number of conflict events within the borders of an assembly constituency in a given year as reported by the Uppsala Conflict Data Program (1992-2021). Standard errors clustered at the constituency level in parentheses. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

To assess this channel, I use geocoded event data from the Uppsala Conflict Data Program (UCDP) to construct an annual measure of conflict incidence at the assembly-constituency level. Specifically, the dependent variable counts the number of conflict events occurring within a constituency in a given year (1992–2021). As Table 9 shows, state exposure is not positively associated with conflict incidence: the OLS estimate is small and statistically indistinguishable from zero, and the IV estimate is slightly negative and likewise insignificant. These results suggest that the main findings are unlikely to be mechanically driven by higher exposure to conflict or fear in earlier or later-incorporated areas.

7 Conclusion

This paper studies the long-run consequences of state expansion for economic and social stratification. Exploiting staggered annexation into formal state structures in Nagaland, a region historically organized around kin-based and village-level institutions, I show

that longer exposure to the state is associated with substantial improvements in average economic outcomes, including wealth, education, and occupational shifts away from agriculture. At the same time, these gains are accompanied by pronounced increases in within-village inequality, indicating that state expansion reshapes not only levels of development but also its distribution.

The analysis further sheds light on mechanisms underlying this persistent stratification. Longer state exposure is associated with political elites who accumulate significantly greater wealth relative to their constituents. In exchange they appear to reciprocate with their constituents by creating patronage jobs. I find evidence of structural transformation in local labor markets, characterized by a sharp expansion of salaried employment driven primarily by the public sector.

In sum, the findings highlight a fundamental tradeoff inherent in state-building processes applied to settings where hierarchical structures are unfamiliar, relatively speaking. While the introduction of state institutions can foster economic growth, market integration, and political mobilization, it is unlikely to take a Weberian form among societies new to the idea. Instead it will generate new forms of hierarchy and inequality within previously egalitarian societies. Given contemporary policy discourse emphasizing the expansion of state presence—particularly into tribal and weak-state societies—this study highlights an important policy implication regarding the social ramifications that such expansion may entail.

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Appendix

A Historical Records

A.1 Map of Assam (1834)

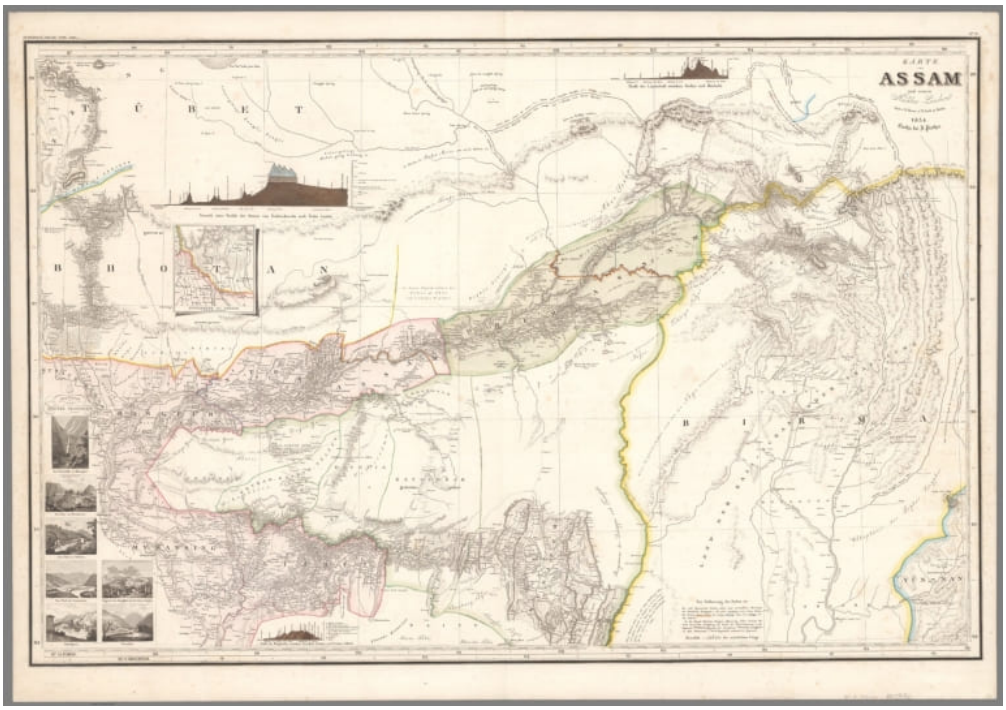


Figure A1: Map of Assam drawn in 1834 by Berghaus Heinrich. This was decades before the mountain regions surround the Assam Valley had been incorporated, and hence are left blank. The mapped region in the center running west to east follows the Brahmaputra River.

A.2 Tea Estates in Northeast India (1873)

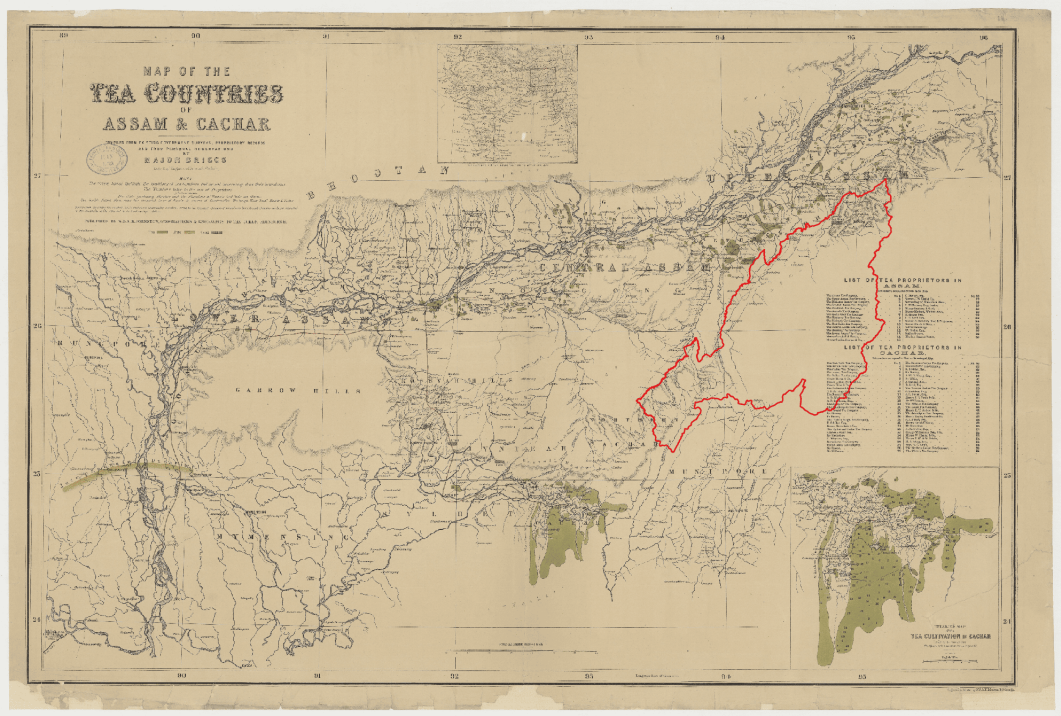


Figure A2: Map of the Tea countries (in green) of Assam & Cachar / compiled by Major Briggs. *Open source: link.*

A.3 Historical Narrative of Raids on Tea Estates

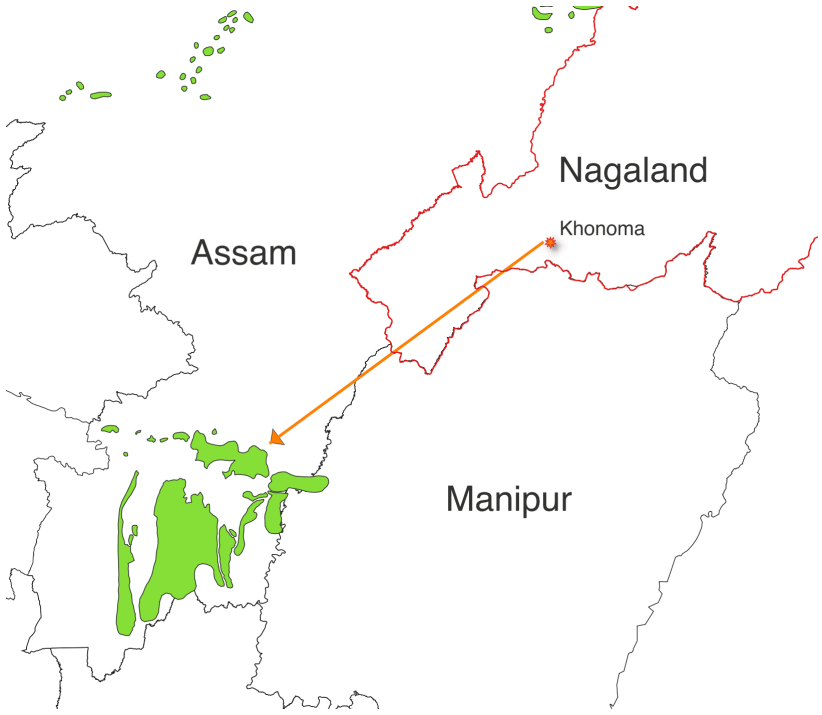


Figure A3: The abstract below describes how men from the village of Khonoma (orange dot) walked 80 miles to the Baladhan tea estate.

An extract from the 'Assam Administration Report', 1882-

> ...the daring raid made in January 1880, by a party of Khonoma men from the fort above the village, at the time beleaguered by our troops, upon the tea-garden of Baladhan in Cachar, more than 80 miles distant...

A.4 Mapping of Villages



Figure A4: Colonial mapping of the capital town (Kohima) and the villages surrounding it. Red lines indicate roads and blue lines indicate rivers and streams.

A.5 State Revenues

Particulars.	1900-01	1901-02	1902-03	1903-04
Kohima Subdivision.	Rs.	Rs.	Rs	Rs
House tax	40,889	41,243	42,112	33,893
Total revenue	41 610	12,039	42,112	34,837
Mokokchung Subdivision.				
House tax ...	18.096	19,520	17,832	23,820
Total revenue ...	18.098	18,520	17.832	29 813
Total District.				
House tax	58,984	59,963	59,944	57,713
Other heads	724	595		0,937*
Total revenue	59,708	60,555	59 944	64 650

(a) Revenue statistics

Outposts held by the Naga Hills military police battalion.

Name.	Distance from Headquarters.	Strength.	
		Officers.	Men.
Tamlu	136 miles	1	50
Mokokchung	53 „	1	100
Kenima	76 „	1	25
Khonoma	11 „	1	25
Tessima	7 „	...	3

Table XII.

Kohima Subsidiary Jail.

	1891	1901
Average daily population { Male	17	20
Female	...	...
Rate of jail mortality per 1,000 ...	...	...
	Rs.	Rs.
Expenditure on jail maintenance ...	2,693	1,013
Cost per prisoner* (excluding civil prisoners)	66	22
Profits on jail manufacture ...	...	1,343
Earnings per prisoner† .	...	71

* On rations and clothing only.
† Calculated on the average number sentenced to labour.

(b) Jail construction statistics

Figure A5: A few statistics taken from the Gazetteer of Naga Hills and Manipur (Allen, 2010).

A.6 State Expenditures

TABLE XV.
Medical.

PARTICULARS.	KOHIMA SUBDIVISION.			MOKOKCHUNG SUBDIVISION.		TOTAL DISTRICT.		
	1881	1891	1901.	1891.	1901.	1881.	1891.	1901.
Number of dispensaries	1	3	2	1	1	1	4	3
Daily average number of in-door patients	16 18	7 34	13·60	...	...	16·18	7·34	13·60
,, ,, , out-door ,, ..	30 36	15·20	36 87	5 76	23 18	30 36	20 96	60·05
Cases treated	1,081	4,275	10,651	1,274	5,859	1,081	5,549	16,510
Operations performed	11	121	119	27	42	11	148	161
Total Income	Rs 3,024	Rs 4,256	Rs. 4,009	Rs. 304	Rs. 699	Rs. 3,024	Rs. 4,560	Rs. 4,708
Income from Government	2,929	3,724	3,556	304	609	2,959	4,028	4,255
Subscriptions	...	434	249	...	...	...	434	249
Total expenditure	3,024	4,201	3,987	304	699	3,024	4,505	4,686
Expenditure on Establishment ...	1,358	2,004	1,776	...	334	1,358	2,004	2,110
Ratio per mille of persons successfully vaccinated.		Not available				(a) 2	19	123
Cost per case		Do.				...	Rs. A. P. 0-3-11	Rs. A. P. 0-1-9

(a) Figure for 1881-82.

(a) Medical expenditures

PARTICULARS	No. of institutions.	Expenditure on institutions maintained or aided by public funds in 1900-01 from				Expenditure per scholar.
		Provincial Revenues.	Fees	Other sources.	Total.	
		Rs.	Rs.	Rs.	Rs.	Rs. As. P.
Training and Special School	1	28	...	957	985	25 4 1
Middle English Schools ...	1	1,649	207	...	1,856	23 11 4
Lower Primary School ..	16	1,620	...	...	1,620	8 2 3
Total	18	3,297	207	957	4,461	14 1 10

(b) Education expenditures

Figure A6: A few statistics taken from the Gazetteer of Naga Hills and Manipur (Allen, 2010).

A.7 Controls used in the DHS Data

The DHS data provides geographic and agro-climatic covariates for each cluster. I use the following as controls in my regressions that use this data-

- Elevation in meters
- Mean Temperature: The average annual temperature within the 2 km (urban) or 10 km (rural) buffer surrounding the DHS survey cluster location. The mean temperature is a modeled surface based on weather station data. Years used: 1985, 1990, 1995, 2000, 2005, 2010, 2015.
- Mean Rainfall: The average annual rainfall within the 2 km (urban) or 10 km (rural) buffer surrounding the DHS survey cluster location. Years used: 1985, 1990, 1995, 2000, 2005, 2010, 2015.
- Slope: Slope is a measurement of how rough the terrain around a DHS cluster is. The United States Geological Survey GTOPO30 digital elevation model was processed into slope by using the slope tool in ArcMap 10.5.0.
- Aridity: the average yearly precipitation divided by average yearly potential evapotranspiration, an aridity index defined by the United Nations Environmental Programme (UNEP).
- Frost Days: The average number of days in which the minimum temperatures of the location surrounding the DHS survey cluster within 2 km (urban) or 10 km (rural) buffers met the criteria to be categorized as a "frosty" day.
- Wet Days: The average number of days receiving rainfall within the 2 km (urban) or 10 km (rural) buffer surrounding the DHS survey cluster location.
- Land Surface Temperature: The average annual land surface temperature within the 2 km (urban) or 10 km (rural) buffer surrounding the DHS survey cluster location.
- Number of observations in each cluster.

B Additional Tables and Figures

B.1 Distribution of the Instrument

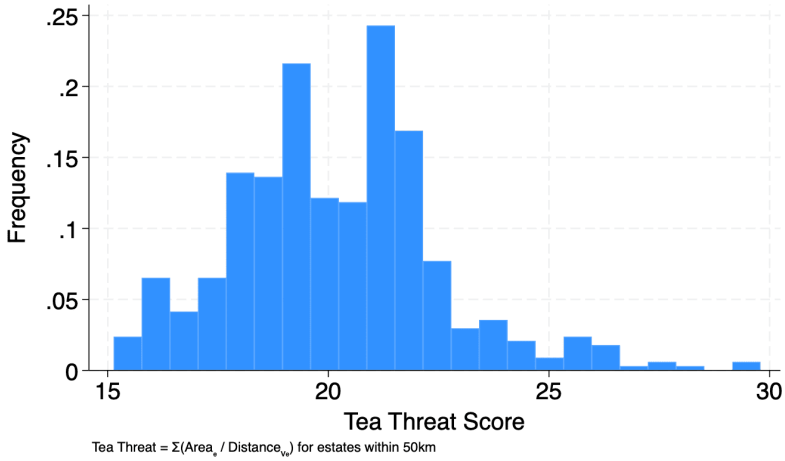


Figure B1: A histogram of the 'Tea Threat' instrument defined as-

$$\text{Tea Threat}_v = \sum_{e:\ e \in \text{Assam}} \frac{A_e}{D_{ve}}$$

where A_e denotes the area of tea estate e (in square kilometers) and D_{ve} denotes the distance from village v to estate e (in kilometers).

B.2 Plot of First Stage Relationship (DHS Data)



Figure B2: Binned scatter of plot of the first stage relationship, conditional on village level geographic and agro-climatic controls, and the number of observations in each DHS cluster.

B.3 Spatial Distribution of the 2015 DHS Clusters (rural)

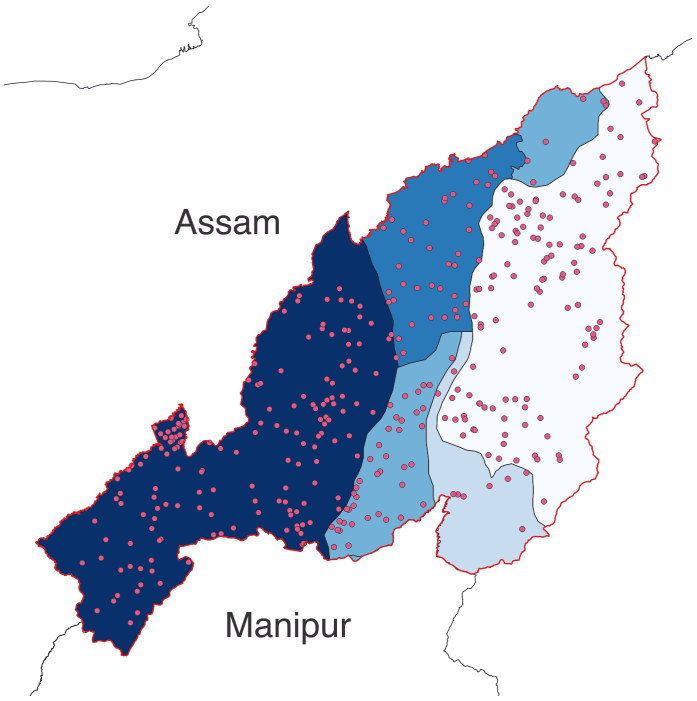


Figure B3: Map of the 2015 DHS rural clusters in Nagaland state

B.4 Robustness to Including Dimapur District

Table B1: IV Estimates of State Exposure on Within-Village Inequality

Panel A:	**First Stage**	**Reduced Form**		
	(1) State exposure in decades	(2) Standard deviation	(3) Interquartile range	(4) Top minus bottom decile
Tea Threat$_v$	0.645***	0.151***	0.270***	0.416***
	(0.111)	(0.052)	(0.082)	(0.149)
F-stat (instruments)	33.899			
Controls	✓	✓	✓	✓
Observations	366	366	366	366
R-squared	0.799	0.324	0.251	0.282
Mean dep. var.	10.72	4.841	6.615	12.41

Panel B:	**Second Stage Estimates**		
	(1) Standard deviation	(2) Interquartile range	(3) Top minus bottom decile
State Exposure$_v$	0.234**	0.419***	0.645**
	(0.092)	(0.156)	(0.264)
Controls	✓	✓	✓
Observations	366	366	366
Mean dep. var.	4.841	6.615	12.41

Notes: The unit of observation is a village. 'State Exposure' is the number of decades under the state. Outcomes are constructed using the DHS wealth factor score (mean = −3.3, SD = 6.1). Panel A reports first-stage and reduced-form relationships between the instrument and inequality outcomes. Panel B reports IV estimates of state exposure instrumented by threat to tea estates. Controls include geographic and agro-climatic variables provided by the DHS, and the number of observations in each cluster. Standard errors clustered at the assembly constituency level in parentheses. Conley HAC standard errors using 20 km cutoff in square brackets. $^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$.

B.5 Distribution of the Tea Threat Instrument (Nagaland vs. Manipur)

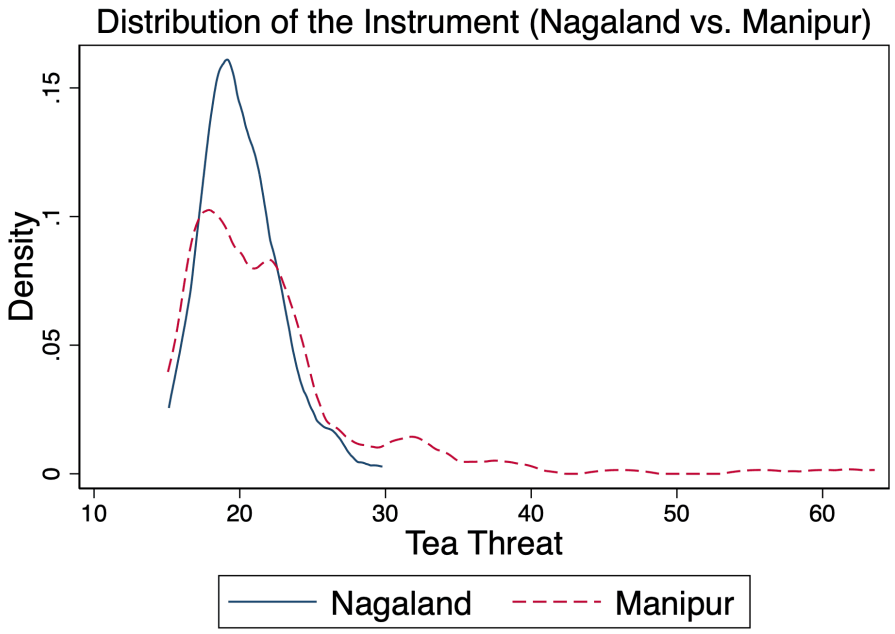


Figure B4: The figure shows the degree of overlap in the Tea Threat instrument between Nagaland (the treated region) and Manipur (the placebo).

B.6 IV Estimates of Elite Wealth Divergence

Table B2: Political Elites: IV Estimates of Wealth Gaps

	(1) Log Assets	(2) Education (in years)	(3) Wealth Gap
State Exposure$_v$	0.531	0.472	0.367
	(0.175)***	(0.173)***	(0.157)**
	{0.211}**	{0.163}***	{0.182}**
	[0.229]**	[0.194]**	[0.189]*
Controls	✓	✓	✓
Observations	343	331	343
Mean dep. var.	15.25	11.85	5.592

Notes: The unit of observation is a political candidate. "State Exposure" is the number of decades under the state, and is instrumented by proximity to tea estates as described in equation 2. All specifications control for elevation in meters, terrain ruggedness, mean annual temperature, mean soil pH, and mean annual rainfall. Standard errors in parentheses are clustered at the assembly constituency level. Standard errors in curly (square) brackets are Conley spatial HAC with a 10 (20) km cutoff. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

B.7 IV Estimates of Structural Change

Table B3: IV Estimates for Structural Change in Labor Markets

	(1) Share of population who are salaried	(2) Share whose income from public sector	(3) Share whose income from private sector	(4) Share whose income from agriculture	(5) Share of tax-paying households
State Exposure$_v$	0.035	0.028	0.002	-0.047	0.015
	(0.009)***	(0.008)***	(0.001)**	(0.022)**	(0.008)*
	{0.010}***	{0.009}***	{0.001}*	{0.020}**	{0.012}
	[0.010]***	[0.008]***	[0.001]*	[0.016]***	[0.010]
Controls	✓	✓	✓	✓	✓
Observations	1,045	1,045	1,045	1,045	1,045
R-squared	0.124	0.123	0.041	0.097	0.081
Mean dep. var.	0.188	0.160	0.0183	0.713	0.119

Notes: The unit of observation is a village. "State Exposure" is the number of decades under the state, and is instrumented by proximity to tea estates as described in equation 2. All specifications control for elevation in meters, terrain ruggedness, mean annual temperature, mean soil pH, and mean annual rainfall. Standard errors in parentheses are clustered at the assembly constituency level. Standard errors in curly (square) brackets are Conley spatial HAC with a 10 (20) km cutoff. Significance levels are indicated by stars next to the corresponding standard errors: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

C Other Illustrations

C.1 Visual Time Series of the Capital City of Kohima



Figure C1: From being a village of 900 households at the time of annexation, the village of Kohima had transitioned to a township by the time of independence in 1947. The most recent 2011 census reports a population of 115,283.

C.2 Zomia Map

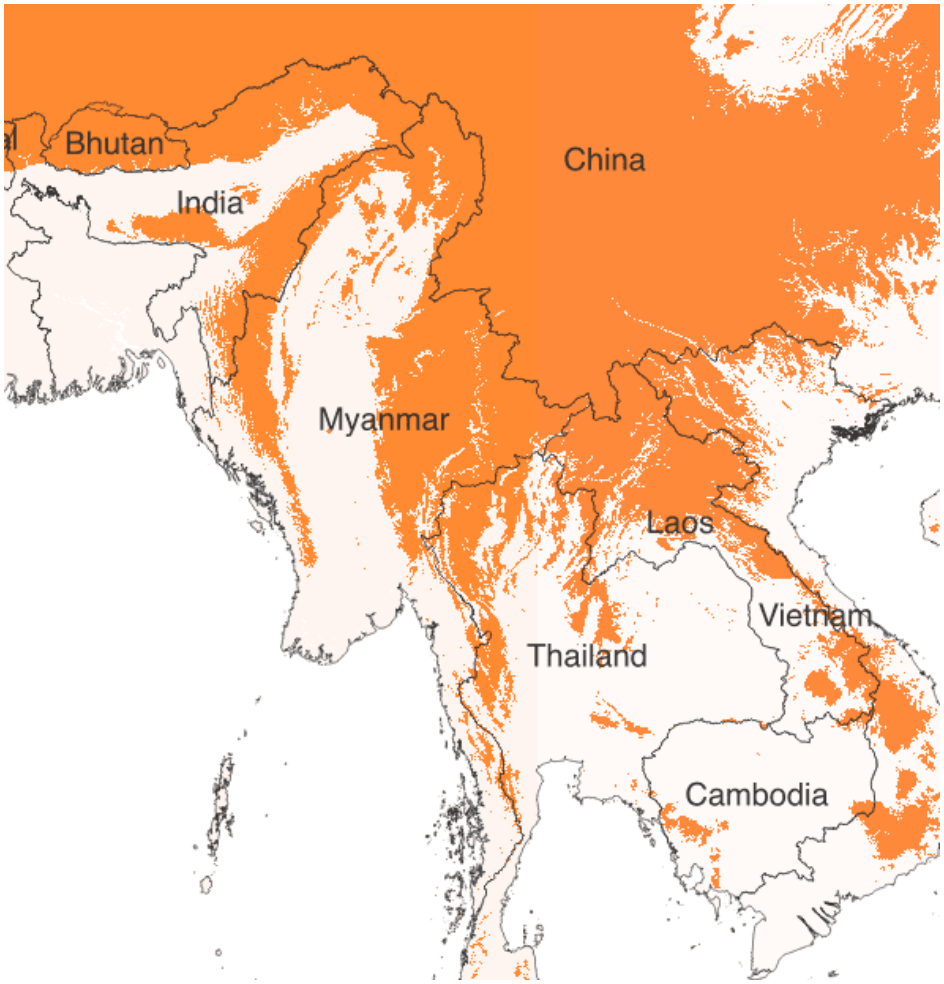
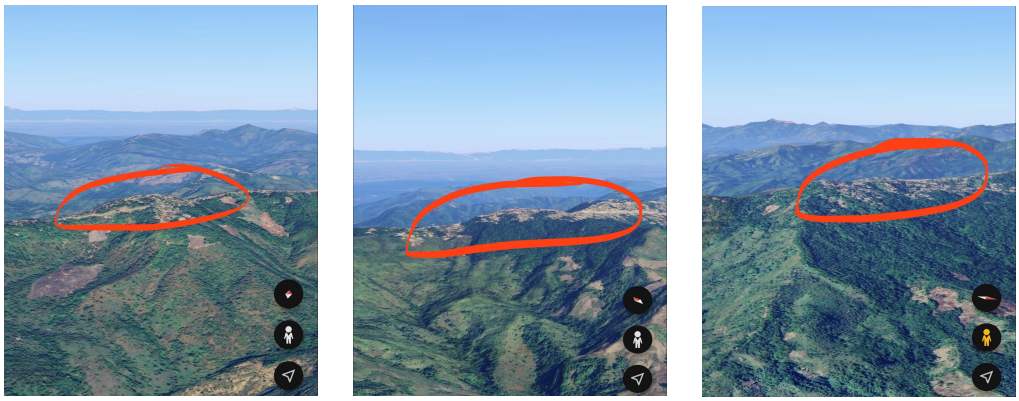


Figure C2: Map of Zomia with orange shades indicating elevation above 500 meters.

C.3 Strategic Locating of Villages



(a) Chungliyimti (b) Mopungchuket (c) Noksen



(d) Chen (e) Wakching (f) Tang

Figure C3: Villages locate themselves on the ridge of mountains. In the past this was necessary for self-defense. (Images taken from Google Earth.)

C.4 Tribal Regions of Manipur

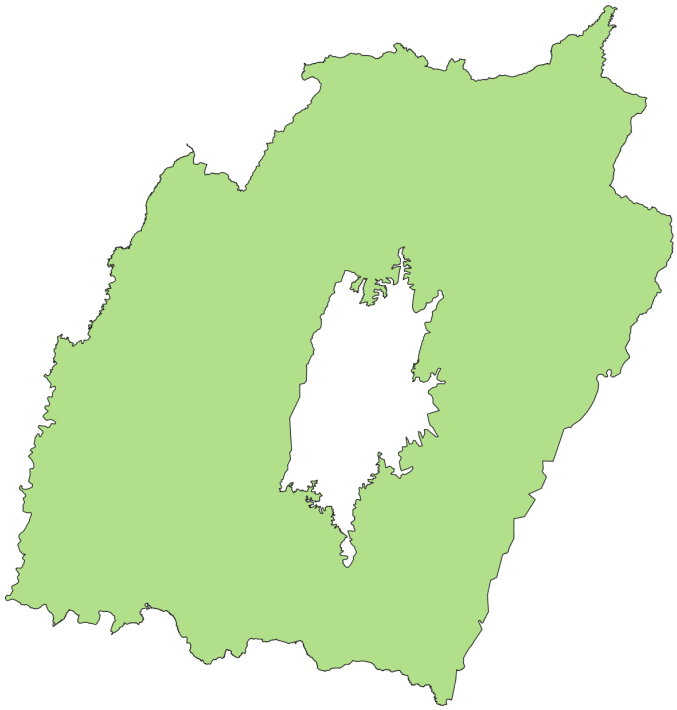


Figure C4: Map of Manipur with its tribal region shaded in green