

Coercive Labor and Long-Run Poverty in Egypt

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Abstract

Slavery depresses long-term economic growth. The developmental legacies of coercive labor regimes whose importance increased following slavery's formal abolition are less clear. While falling short of slavery's extreme brutality, these institutions employed considerable exploitation and violence. This paper examines the enduring effects of one such institution, the Egyptian *'izba*. This turn-of-the-century institution used systematic surveillance and coercion to facilitate industrial scale cotton production until being dismantled by Nasser's post-1952 land reforms. Combining spatial data on thousands of historic *'izba*, with geo-located survey data on 50,000 Egyptian families reveals a deleterious effect on contemporary wealth that is robust to a variety of specifications as well as an instrumental variables regression. Supplementary analysis is consistent with arguments that unintended side effects of the reform, in particular restrictions on resale and price controls for beneficiaries, are responsible for these results.

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Introduction

Scholars have consistently identified slavery’s long-term negative effects on economic growth (Dell 2010, Engerman and Sokolof 1997, Nunn 2008, Nunn and Wantchekon 2011). As global norms against slavery diffused, economic elites adapted a variety of practices and institutions that fell short of slavery’s systematized exploitation, racial violence, and dispossession, yet were still highly coercive. In this paper we identify the negative consequences of these coercive practices for contemporary patterns of localized wealth and poverty, focusing in particular on how these effects persist *despite* attempts by the state to dismantle these exploitative institutions.

We focus on a particular institution of Egyptian coercive agriculture, the *‘izba* (عزبة, pl. *‘izab*). The *‘izba* emerged in the late 1800s to facilitate large-scale cotton production through a regime of debt peonage, surveillance, and violence (Ayroun 1963, Lozach and Hug 1930, Mitchell 2002, Nahas 1901). Although thousands of *‘izab* dotted the Egyptian landscape for decades, they were dismantled, and much of their land was redistributed, by Nasser’s post-1952 reforms (Taylor 1984, 168-173). Matching comprehensive historical spatial data on the locations of thousands of these institutions against contemporary, geolocated surveys of Egyptian families, we find that respondents proximate to historic *‘izba* are systematically poorer than those distal from these large estates. The relationship is robust to a variety of specifications, including a placebo test based on the distribution of *kafr* (a rural hamlet) as well as an instrumental variables regression exploiting the proximity of *‘izba* to historic irrigation canals. While tentative, we present historical and statistical evidence that the very land reforms designed to eliminate the *‘izba* paradoxically locked beneficiaries into a system of state-managed economic production that ultimately made them poorer.

This paper makes three contributions. First, while historians have long identified the effect of cotton on labor relations in Egypt (Owen 1969, Richards 1978), there is a relative dearth of systematic, quantitative evidence on its contemporary effects.¹ And while social

¹Saleh’s (2019) quantitative study is one important exception.

scientists have increasingly focused on the effects of coercive labor institutions that fall short of slavery (Lowe and Montero 2021, Markevich and Zhuravskaya 2018), the economic and political impacts of land reform (Albertus et al. 2016), as well as the unintended consequences of large development projects (Duflo and Pande 2007), there has been surprisingly little work on the high profile case of contemporary Egypt. Second, we provide preliminary evidence of the importance of property rights and labor mobility as a key driver of poverty. Egypt’s post-1952 land redistribution imposed legal conditions on the recipients which had the unintended side effect of preventing full exploitation of redistributed land. Because recipients could neither sell nor borrow against the land for a fixed term, and were forced to sell the outputs at below market value, they were effectively locked into long-term poverty. Finally, our work highlights how even “milder” coercive labor regimes can negatively effect contemporary levels of development, and how these effects can persist despite large-scale reforms explicitly designed to dismantle these “feudal” institutions.

Our paper proceeds as follows. The next section reviews the literature on coercive labor institutions, particularly slavery, and the mechanisms linking these institutions and contemporary levels of development. The following section describes the emergence and operation of the *‘izba* in the context of Egypt’s cotton boom. We then present the data and describe our estimation strategy, including a placebo test and an instrumental variables regression. A subsequent section refocuses on a possible mechanism, presenting evidence consistent with the argument that Nasser’s reforms counterintuitively reproduced some of the deleterious effects of the *‘izba*. After discussing our results, a conclusion highlights how our findings should inform future research on the politics of land reform and economic development in key non-Western cases.

Long Run Consequences of Coercive Labor Regimes

Labor relations are inherently coercive (Acemoglu and Wolitzky 2011). However, recent scholarship has emphasized that as violence and power imbalances increase, the shadow of

coercive labor regimes lengthen. The negative relationship between coercion and economic growth is most obvious in the economic literature on the legacies of slavery (Dell 2010). Over the last twenty years an abundance of evidence has shown that labor markets dominated by slavery are significantly worse off today (Engerman and Sokolof 1997). Previous studies emphasize multiple channels through which slavery negatively impacts contemporary development, including the direct loss of life and human capital of societies exposed to slave raids (Nunn 2008). But studies of the long run impacts of slavery also highlight a number of less direct but equally devastating mechanisms, such as inefficient and unequal forms of local administration (Acemoglu, García-Jimeno and Robinson 2012) and the loss of interpersonal trust (Nunn and Wantchekon 2011).

We might expect that long-term exposure to exploitative, violent, and dehumanizing institutions like slavery would exert an influence on contemporary levels of development. However, we have less evidence about whether more “mild,” but still coercive labor institutions, exert similarly negative long-term effects. Recent evidence suggests that labor regimes that resemble slavery, such as serfdom, in which peasants were in effect the “property” of large lords, also negatively influenced economic development (Bugge and Nafziger 2021, Markevich and Zhuravskaya 2018). Colonial concessions characterized by the total discretion of private companies over laborers and which relied heavily on violence, also had long-term negative impacts on contemporary development (Lowe and Montero 2021). We place our investigation in this literature: how and why do coercive labor institutions, even those less extreme than slavery, influence contemporary levels of development? Are these effects identifiable even in cases where extensive reforms were designed to eliminate these institutions and their legacies? If so, how do these effects persist over time?

One central challenge to addressing these questions is that both coercive labor regimes and attempts to address their legacies are classic examples of “bundled” treatments. Often the introduction of coercive labor regimes coincides with the expansion of private property, investment, and potentially agricultural productivity. We have some evidence that in ar-

eas where coercive labor regimes were closely tied to weaker property rights and limited investment, they seem to exert a negative impact on contemporary development (Banerjee and Iyer 2005). But in certain instances where coercive labor practices were combined with significant investment especially in technology and industrialization, aggregate effects may wash out or even trend positively (Dell and Olken 2021).

In conjunction, newly-independent countries often attempted to disassemble the “feudal” relations of coercive labor regimes through land reforms, which set a ceiling on individual land ownership, and redistributed property above that ceiling to peasants (Tai 1974, Albertus 2015*a*). While these attempts may meaningfully redistribute land, and can under certain conditions even alleviate poverty (Besley and Burgess 2000), the mechanisms linking cause and effect are much less clear. Part of this difficulty stems from the fact that like all large development projects, land reforms can have unanticipated political and economic consequences (Dell 2012, Montero 2021). Another challenge stems from the fact that because the state is solely responsible for redistributing seized lands, it can be tempted to do so in a way that prioritizes politics rather than growth (Albertus 2015*b*, Albertus et al. 2016).

In the following sections we begin to empirically substantiate this argument with data from pre- and post- 1952 Egypt. We first use historical accounts to describe the *‘izba* system and draw out intuitions about their legacies. We then introduce the data that allow us to systematically examine the extent to which these historic institutions of coercive agriculture generate patterns of local wealth and poverty that persisted to the present. We end the paper with extended speculation on the importance of the labor mobility mechanism, adducing qualitative and quantitative evidence consistent with a dynamic whereby the specific design of the land reforms simultaneously tied beneficiaries to the land and reduced their earnings potential.

Coercive Labor in Egypt's Cotton Kingdom

Beginning in the early 1800s Egypt's agricultural economy began to transform. Successive Khedives, assisted by French and then British engineers, set the initial conditions for a cotton economy by extending a network of irrigation canals across the country (Willcocks and Craig 1913). At roughly the same time, a French agronomist fortuitously identified a new type of long staple cotton that, while water intensive, rivaled the best American products (Norris 1934, Earle 1926). When British mills began to struggle to reliably source American cotton due to the Civil War, Egypt's cotton exports surged. By the early 1900s, one British expert described Egypt as "the most perfect cotton-country of the world" (Balls 1920, 193).

Previous scholarship emphasizes that while infrastructure, technological innovation, and opportunity contributed to the growth of Egypt's cotton industry, a new institution played an equally important role in the production of cotton on an industrial scale: the *'izba*. Fundamentally a sharecropping system, laborers were given small plots of land grouped on the outskirts of large estates on which they were expected to live with their families and grow their own food and fodder for their animals.² In exchange, these workers were required to work their landlord's holdings exclusively; a period Richards estimates at 25 days per month (1978, 505).

Historians have traced the emergence of the *'izba* to a confluence of challenges that inhibited the ability of Egyptian producers to meet surging demand for cotton in the mid 1800s. Decades of enclosure, heavy taxation, and flight from *corvée* labor had rendered a generation of Egyptian peasants landless (Baer 1962, 28- 39; Cuno 1992, 163-164). Furthermore, small scale farmers, "had no interest in growing a crop they could not eat, or process to serve local needs" (Mitchell 2002, 59). This was exacerbated by the changes to the irrigation system: the expanding canal system had eliminated the historically slack (summer) season when the

²This is perhaps the relation to the Arabic root ب-ز-ع meaning "to be far or distant from." Wehr defines an *'izba* as "country estate, farm, rural settlement" (1994 (196, 713). See also the helpful definitions in Lozach (1930, 156-160) and Baer (1962, 234). Alleaume even connects the etymology of *'izba*, and the Arabic root meaning "distant from" to the fact that "...peasants were uprooted from their native lands and regrouped on the estate in housing modeled on workers' villages" (1999, 342).

traditional irrigation basins dried out, allowing producers to farm cotton year-round. While this vast pool of laborers was good for large scale producers because it kept wages low, to produce cotton for export landowners needed to corral vast numbers of mobile workers, and compel them to spend the entire year cultivating a new crop that they could not eat, feed to their animals, or sell themselves.³

While Egypt's landlords had always been a powerful class, the importance of large estates for the rural economy increased following the British occupation in 1882. Under the British, rural development hinged on export commodities: primarily cotton in the Nile Delta (Owen 1969), and sugar in Upper Egypt (Derr 2019, Chapter 3). Despite British insistence that their policies were designed to improve the lot of Egypt's millions of peasants, or *fellahin*, the overwhelming focus on cash-crops increased the power of Egypt's largest landlords because of their ability to produce these crops at scale for export (Jakes 2020, Chapter 3). This alignment of interests between colonial administrators and landed elites is best exemplified by a law passed in 1884, two years after the British occupation which stated that "permits for new *izab* would only be granted for properties of at least fifty contiguous feddans of land owned by a single proprietor" (Jakes 2020, 66).⁴ There is no question that this law was intended to benefit Egypt's largest landlords: by 1896, the first year for which standardized agricultural statistics are available, of Egypt's roughly 767,000 landowners, only 11,875 individuals owned properties greater than 50 feddans. These holdings totaled more than 2.1 million feddans, approximately 43% of all registered land in the country (Ministere des Finances, Égypte 1909, 266-267). By formally limiting *'izba* status to Egypt's largest properties, the reform of 1884 allowed Egypt's most powerful landlords to vastly expand their powers of coercion.

It is important to note that the imposition of the *corvée* and physical violence were

³Recent evidence suggests that while some of the demand for labor was met by an increase in slaves among small and medium-sized landowners, but this option formally ceased in 1877 with the abolition of slavery (Saleh 2019). See also Cuno (2019) for a recent qualitative account of slavery in rural Egypt.

⁴A law reaffirming the designation of *'izba* status only to properties of greater than 50 feddans (21 hectares) was passed in 1913, see (Richards 1978, 514).

ubiquitous features of the cotton economy before the introduction of the *izba*. Initially, royal estates were some of the largest producers of cotton and relied heavily on the *corvée* both for irrigation and cultivation (Derr 2019, 21). Towards the middle of the 1800s, to encourage the development of cotton on private estates, landlords were granted the right to cultivate cotton “using the unpaid labor of the *fellahin* (peasants)” (Owen 1969, 60). Yet the *izba* system was notable for concentrating and routinizing coercion beyond what Richards pithily summarizes as the “sack and the stick” (Richards 1979, 485). In addition to the threat of physical violence or expulsion from the landlord’s property, *izba* owners benefited from a simple system of debt peonage. While the workers were paid a small wage for their work on the owner’s land, in practice it was often insufficient to pay for the inputs for their own small plot of land, necessitating loans. In many cases they had to buy or borrow these materials from the landlord himself (Stauth 1990, 297). A 1930 memo from the undersecretary of state to the minister of finance noted the extent of this dependency: “It is to the landlord that the tenant looks for seed, for manure, for water: he pays a high price for what he buys and receives little for what he sells; but there is no escape: he begins the year in debt and he ends it in debt; he is fettered and bound and by more than one chain” (Abdel Wahhab 1930, 31).⁵

Furthermore, because every moment spent working on the landlord’s cotton was a moment away from a tenant’s own food plot, shirking was a constant threat to efficient production (Richards 1977, 20). In response, the *izba* properties were sites of “detailed and continuous control” (Mitchell 2002, 66). The threat of physical violence, was personified by the estate’s overseer (*nazir*), a man adept with a club or the notorious hippopotamus-hide whip known as the *khourbaj* (Abbas and El-Dessouky 2011, 113). Henry Ayrout described this figure as:

[T]he owner’s real executive, on whom the whole system depends. Obsequious

⁵The landlord’s rent-seeking was notoriously comprehensive: “Most landowners require the renter to return to the land a fixed quantity of *baladi* (barnyard animal) manure per acre each year,” which they were expected to purchase from the landlord himself (Norris 1934, 33).

to his master, inexorable with the [peasant], it is his business to put all possible pressure on the agricultural machinery, that is, the [peasants], to increase production. To use an expression of the [peasant], he is like the saw, which cuts coming and going. He controls plowing, manuring, sowing and harvesting by the roughest kind of rule (1963, 17).

As Abaza concludes, based on the testimonies of former *'izba* residents, “spreading fear among the permanent workers was one main element that maintained order and discipline in the [estate]. Killings perpetrated by some *ghafirs* (guards) who terrorized the entire *'izba* did occur. Such murders were perceived as a ‘natural’ plague, with which the permanent workers had to cope” (2013, 79).

'Izba properties were also designed and constructed— through walls, gates, and guards— to imprison workers (Lozach and Hug 1930, 159). One former resident likened the setup to “a concentration camp” (Mitchell 2002, 70).⁶ Another remembered how “the night guards (*ghafirs*) used to encircle the village or wait for the peasants along the road to stop them from running away and beat them” (Abaza-Stauth 1985, 50). It was, as Mitchell described, a “total institution” that “represented a system of surveillance, supervision, and coercion that succeeded for the first time in fixing cultivators permanently in place on the land and preventing them from abandoning cultivation or moving to another region” (2002, 67).

The *'izba*'s prominent role in Egypt's feudal economy made them one of the July 1952 revolution's first targets. Addressing rural inequality had been a top priority of the small group of junior officers who seized power in a bloodless coup, and the Agrarian Reform represented the first salvo in what was to become a nearly two decade long struggle to eradicate “feudalism” from Egyptian through seizure and redistribution.⁷ As a contemporary

⁶The appendix includes images from two such estates, reproduced from a contemporary study (Lozach and Hug 1930).

⁷A series of three laws were enacted in a period of just over seventeen years which established strict individual thresholds for land ownership with the goal of taking land from rural elites and redistributing these lands to peasants. The initial Agrarian Reform Law capped individual land ownership at 200 feddans. A subsequent law passed in 1962 lowered the threshold to 100 feddans. By 1962 approximately 578,533 feddans had been seized by the state and redistributed to 271,116 families (Abdel-Fadil 1975, pg.10). A

Egyptian government report described, “The chief objective of [the agricultural reform law] is to raise the standard of living of that class and group of people which had been enslaved for ages under the reign of feudalism” (Higher Committee on Agricultural Reform, Press Department N.D.*b*, 31).

At the same time, previous scholarship suggests an ambiguous relationship between forced redistribution and actual poverty alleviation. Contemporaneous accounts imply an effective break with the exploitative past; Abdel Mohsen Aboul-Nour, the Minister of Land Reclamation, argued that the reforms inaugurated a period “the features of which seem to have had no relation with the past” (Ministry of Agrarian Reform and Land Reclamation 1964, i). Similarly, contemporaries praised the program for decreasing rural land inequality, increasing agricultural productivity, and furthering general peasant well-being (Warriner 1957, 37; Tai 1974, 310-314). Others specifically spoke of breaking the coercive nature of the *‘izba* system: “the farmer will lead a new life feeling himself the master of the land he works in and not forced to work because of being threatened with violence or whipping” (Higher Committee on Agricultural Reform, Press Department N.D.*a*, 19). One Egyptian government report attempted to quantify peasants’ material improvement, concluding that the reforms would immediately increase a farmer’s income over 70%, and by over 130% after paying off the installments (Higher Committee on Agricultural Reform, Press Department N.D.*a*, 18). More recent accounts have continued to defend the efficacy of the project: “one cannot think of an act in recent Egyptian history that was more empowering to the poor than agrarian reform” (Saad 2002, 122).

There is also evidence that the reforms were not working as intended, or at least that the underlying relations were more resistant to change than expected. Nasser himself would express frustration with their progress, telling a crowd in the formerly *‘izab*-dense district of Damanhour, in the Nile Delta in 1966, “Today we find examples of the old social relations,

third and final revision of the law in 1969 lowered the threshold to 50 feddans. These thresholds ensured that the connection between the land reform and the *‘izba* were more than just rhetorical. Since the law of 1913, the designation of *‘izba* was reserved to properties larger than 50 feddans (Richards 1978, 514).

despite the fact that we had liquidated feudalism and the feudalists.”⁸ As Leonard Binder concluded in one of the few in-depth studies of the political causes and consequences of the era, the redistribution efforts “have not brought about a radical transformation of agricultural organization and production...if anything, they may have removed the only forces that were violently and cruelly transforming Egyptian agriculture.” At the same time, he acknowledged how the reforms had likely “led to the temporary improvement of the material condition of the peasant smallholder” (1978, 26).

These narratives establish different empirical predictions about the relationship between historic *‘izba* density and contemporary poverty. In the remainder of the paper we attempt to adjudicate these relationships with geo-located historic, pre-reform data on *‘izba* density that allows us to reasonably identify its contemporary effect. We focus on the local but long term effects of poverty in particular.

Research Design and Data

Dependent Variable: Contemporary Household Wealth

Our dependent variable is the frequently-used asset ownership index of common household items compiled in the large scale *Demographic and Health* (DHS) surveys of Egyptian women (Rutstein 2008, 2015).⁹ In 1995, 2000, 2005, 2008, and 2014 enumerators surveyed 12,567, 16,957, 21,972, 18,968, and 28,175 ever-married Egyptian women of childbearing age (15-49), respectively. As questions across each wave were largely identical (although independent samples were drawn for each), we pool these five survey waves and add survey year fixed effects. To the best of our knowledge, the DHS panel provide the most disaggregated, publicly-available data on contemporary household wealth in Egypt.

DHS surveys also account for the local spatial context of respondents. Since Egypt’s 1992 survey, “clusters” of nearby respondents have been assigned a single latitude and longitude at

⁸<http://nasser.bibalex.org/Speeches/browser.aspx?SID=1173&lang=en>.

⁹<https://dhsprogram.com/What-We-Do/survey-search.cfm?pgtype=main&SrvyTp=country>.

the approximate center of the respondents' neighborhood or village (ICF International 2012). Because this fine-grained spatial data is considered personally identifiable, DHS randomly perturbs the latitudes and longitudes of each cluster by a random direction but capped distance: up to 5km in designated "Rural" areas and up to 2km in "Urban" ones.¹⁰ This random displacement provides us with some advantages, as well as limitations. A standard challenge in many studies is how to determine the size of a "local" catchment. We rely on this built-in DHS practice to exogenously identify "local" catchment areas of 5km (buffers) for each cluster, and thus a plausible measure of the local geographic context of respondents. But there are also two major disadvantages of this random displacement. Because we cannot be certain about the exact location of any village, we are unable to employ a research design that relies on a precise distance to historic *'izba*. Second, because we don't know the exact identity of villages in the DHS sample we cannot link the villages in our sample to any historic covariates that are not precisely geo-located.

Independent Variable: *'Izba Density*

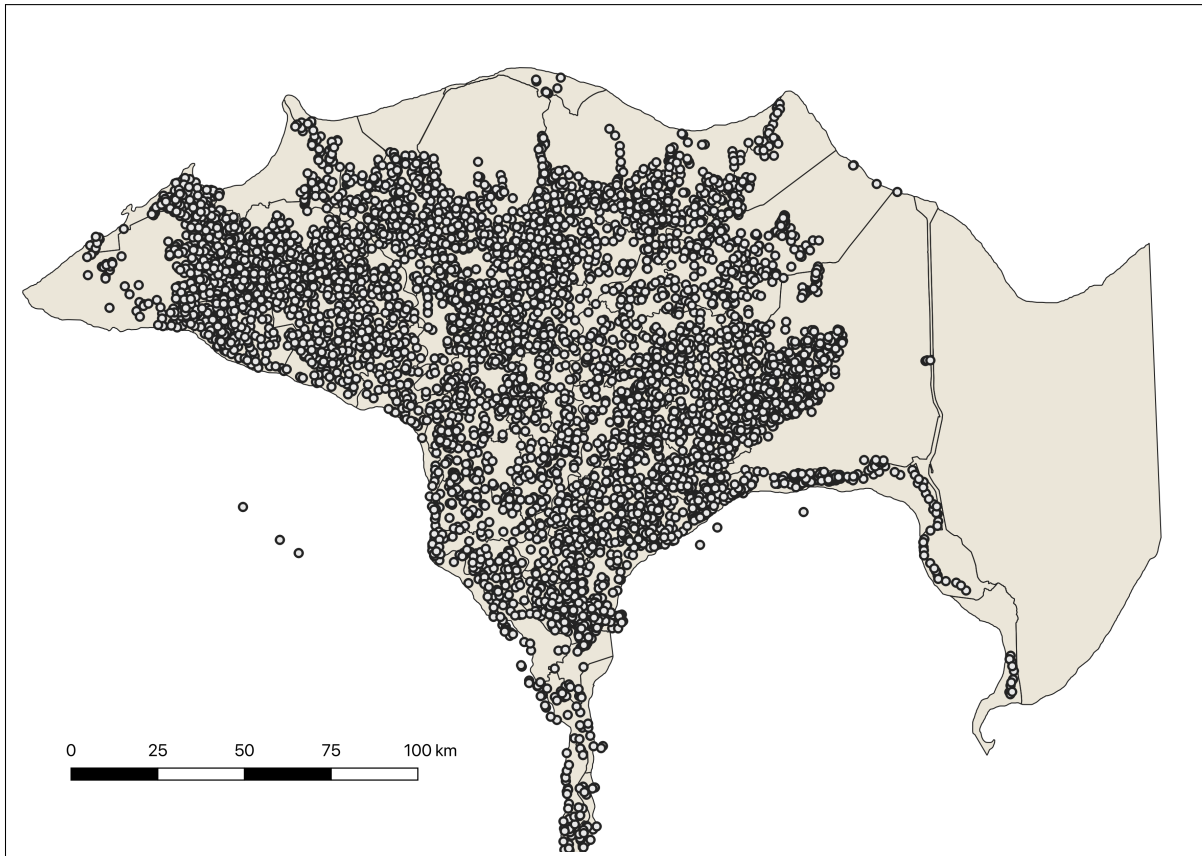
The institution of the *'izba* emerged in the first half of the 1800s to manage cotton production and, by the beginning of the twentieth century, it was widespread. To identify the precise spatial distribution of these institutions near their peak extent, we geocode a 1932 *Gazetteer of Egypt* (Survey of Egypt 1932, Maslahat al-Misāha al-Misriyya 1932).¹¹ This document, produced by cartographers working for the Survey of Egypt, indexes by name every inhabited place in Egypt at the time. Of the 14,166 inhabited places listed in the gazetteer, over half— 7,770— are identified as "*'izba*."¹² Each row of the gazetteer also includes each inhabited place's *mudiriya* (a first-level administrative division), *markaz* (a

¹⁰Further, a randomly selected one percent of rural clusters are also displaced by up to 10km.

¹¹This English version of this document was digitized via OCR and manually checked and corrected for errors with reference to the Arabic version.

¹²Each also specifies the owner of the estate following the prefix *'izba*. As one contemporary chronicler noted, this designation followed the property: "each *'izba* has a name, and this name is of the founder (for example *'izba* Zaky Boulous or *'izba* Mahmoud Ibrahim); if he [the founder] dies the inheritor imposes his own name" (Lozach and Hug 1930, 159).

Figure 1: Spatial Distribution of *'izba* (Nile Delta)



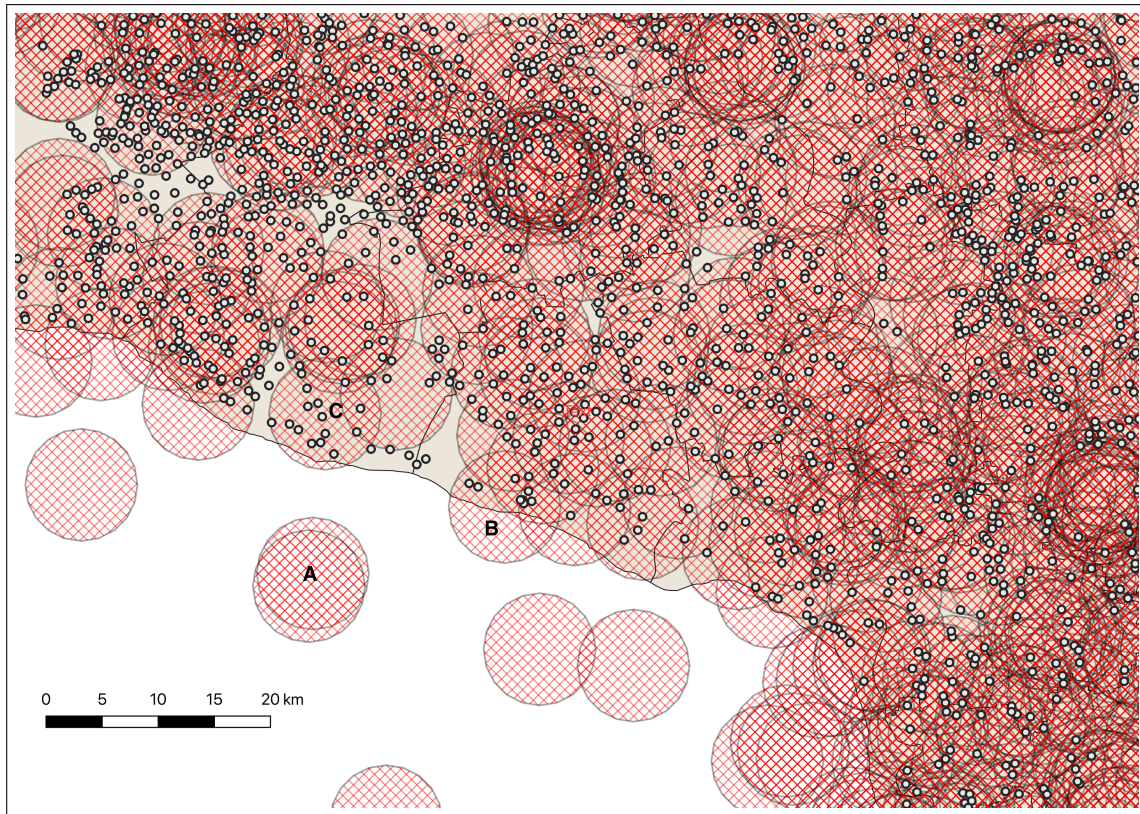
second-level administrative division) and, critical for our purposes, an Easting and Northing position (in kilometers) as well as the specific map sheet on the accompanying 1:100,000 scale map of Egypt on which the place can be found.

We transform the Easting and Northing coordinate system of the Gazetteer (Egyptian 1907 Red Belt Datum) to decimal degrees and overlay it onto a geo-referenced 1:100,000 scale map of Egypt from the interwar period from which district boundaries have been extracted and rendered as polygons.¹³ We project the resulting distribution of *'izba* onto this shapefile of historic Egyptian districts to generate a national-level map of coverage. Figure 1 presents a subsection of this shapefile focusing on the Nile Delta.

We overlay the geolocated *'izba* as depicted in Figure 1 with the latitudes and longitudes of the DHS survey clusters and their associated 5km buffers, then calculate a count of *'izba*

¹³More information on this particular datum can be found at: <https://epsg.io/22992>.

Figure 2: *Izba* and Cluster Overlay (Western Nile Delta)



that fall into each cluster’s catchment zone. Figure 2 illustrates the process with a close-up of the Nile Delta northwest of Cairo. No historic *‘izba* fall within the random buffer associated with the DHS villages designated with the letter “A.” However, 8 historic *‘izba* fall within the random buffer associated with the DHS villages designated with the letter “B” and 18 historic *‘izba* fall within the random buffer associated with the DHS villages designated with the letter “C.” Note that the underlying shapefile charts the historic extent of Egyptian districts approximately contemporaneous with the gazetteer (1932).

Before proceeding, it is worth further specifying the relationship between our theory, our concepts, and our measurement. We know from the historical record that the *‘izba* spatially concentrated Egyptian peasants into an intense and highly unequal relationship of coercion and hierarchical dependency. We hypothesize that the nature and length of this exposure systematically and locally depressed economic development in a manner that has persisted despite redistributive reforms specifically designed to eliminate it. The nature of the DHS

surveys both helps and hinders a test of this proposition. On the one hand, the random spatial displacement of these groups of DHS responses (“clusters”) is suboptimal: by design it obscures the true location of each respondent, which does not allow us to measure *‘izba* exposure precisely. On the other, the maximum extent of these displacements— and the fact that they are explicitly done at random— helpfully generates an *ex-ante* catchment area: we know with certainty that each respondent lies somewhere within the catchment area. With this in mind, we can identify for each respondent the number of “proximate” *‘izba*— i.e. the number of historic *‘izba* inside their catchment area. In the absence of better measures, we view this count of proximate historic *‘izba* properties as roughly but plausibly capturing the intensity of that population’s historic exposure to the *‘izba* properties.

Additional Variables

The DHS surveys also allow us to adjust for a variety of theoretically relevant covariates.¹⁴ One challenge of our outcome variable— family wealth— is to avoid controls that are clearly post-treatment (Angrist and Pischke 2008). With this in mind, we produce variables for whether the head of household is a male or female, the age of the head of household, and the age of the respondent. We also generate for each household a sex ratio of ever-born children (male minus female children) with the expectation that households with more male children will be better off.

We also include the bespoke DHS variables for the percentage of land in each cluster currently used for pastureland as well as for farmland, and a dummy for whether or not the cluster is in a DHS-designated “urban” or “rural” area. We also expect that there exists a relationship between public goods and household wealth, and so we download from Open Street Map a nationwide shapefile of all major roads, and use this to calculate the sum

¹⁴DHS data is nested: respondents are situated inside households, and households are situated inside clusters. We effectively collapse the household and the respondent by dropping from the analysis all household members except the female head of household (i.e. the wife or widow of the head of household). 375 households (less than 1%) are polygamous, and for these we randomly drop all but one wife.

distance of all road segments (in log meters) that pass through a cluster’s catchment area.¹⁵ Our assumption is that the greater amount of road distance in each cluster, the greater available infrastructure. Our key independent variable, the number of *‘izba* within the 5km catchment area, is also measured at the cluster level.¹⁶

Falsification Test

Our independent variable measures historic *‘izba* density proximate to a sample of contemporary survey respondents. One possible concern is that *‘izba* density, as measured by our catchment approach, is confounded by an unobserved feature of Egypt’s agricultural economy, geology, environment, or something else.

To help mitigate this concern we derive a falsification test based around the *kafr* (كفر), defined by Hans Wehr as a “small village, hamlet” (1994 (196, 975)). While *kafr* were also small agricultural communities, they did not feature the highly institutionalized coercion and large-scale production of the *‘izba*. They were also the second-most numerous type of inhabited place in the gazetteer (after the *‘izba*): the gazetteer lists 833 *kafr* throughout the country. We measure the density of the *kafr* in the same way as the *izba*. To the extent that the coefficients for historic *‘izba* and historic *kafr* density behave similarly in our models, it would potentially indicate the presence of a confounder.

Instrumental Variables Regression

While a placebo test may mitigate some concern about measurement error and unobserved confounder(s), *‘izba* placement may itself be endogenous to poverty. In this section we establish the spatial proximity of *‘izba* to irrigation canals as an instrument that allows us to statistically account for this potential (Angrist and Krueger 2001). Following Duflo and Pande (2007), we instrument for *‘izba* density with the distance (in meters, logged) between

¹⁵Specifically, these are what Open Street Map classifies as motorways, trunk, primary, secondary, and tertiary roads.

¹⁶Summary statistics, as well as the correlation matrix, are available in the appendix.

the centroid of DHS cluster and the nearest major irrigation canal as identified on a nationwide, 1:750,000- scale map of Egypt produced at roughly the same time as the gazetteer (see Appendix).

We believe that the initial placement of the canals was plausibly exogenous to local socioeconomic conditions. Egypt’s canals were initiated by the French in the 1820s, vastly expanded by Mohamed Ali and subsequently the British under the “protectorate” after 1882 (Brown 1994). At all points the physical geography of the Nile dominated canal planning and construction, including seasonal variation in flow, soil quality, and slope. One historian noted how the early French attempts were “constructed at **random and chaotically** (our emphasis)” and how later British improvements relied on “parts of old-river beds in the Delta” (Gudowski 1984, 104). The foremost British authority on Egyptian irrigation noted this pattern in the 1890s: “of the existing canals a few are on new alignments, most follow the traces of the old channels, and are in consequence very winding and crooked. They however, command the country well and intercept no drainage” (Willcocks and Craig 1913, 369). This suggests that the particularly water-intensive cotton varietal predominantly grown on *‘izba* would establish a spatial relationship between *‘izba* density and major irrigation canals (Saleh 2019). Because they largely predated the *‘izba*, we argue that historic canals help to mitigate concerns of post-treatment bias.

The instrumental variables approach rests on an untestable “exclusion restriction” which assumes that the instrument can only effect the outcome through the endogenous explanatory variable. In our case, contemporary family wealth is only influenced by proximity to historic canals via *‘izba* density. Thus an additional concern is that these historic canals might influence contemporary poverty through a backdoor path whereby proximity to canals increased or decreased poverty either as a result of exposure to waterborne disease, malnutrition or family size. Because these are measured at different levels in the DHS survey, we briefly elaborate on each outcome and described the level at which the outcome is measured.

We begin by testing whether exposure to waterborne diseases and parasites such as schis-

tosomiasis (*Schistosoma mansoni*) reduces family wealth. This relationship is theoretically and empirically plausible: according to the World Health Organization, “in terms of socioeconomic and public health importance in tropical and subtropical areas, [schistosomiasis] is second only to malaria” (1985, 16-20). It is also present in Egypt. To identify if this relationship threatens the exclusion restriction, we use supplemental DHS data on children—the demographic most at risk for schistosomiasis—to construct a measure of the share of children who are stunted per household. Given the historic focus of our theory we might be concerned that parents exposed to schistosomiasis were less likely to be productive and healthy. The DHS uses a wide range of measures to examine stunting in adults. Here we report values for Rohrer’s Index, a standard measure of body mass, which was calculated for all women 15-49, surveyed across each round of the DHS survey, as a proxy measure for historic exposure to schistosomiasis.

Next we examine fertility. As women gained increasing control over their own reproductive health, the so-called “demographic transition” led to a gradual decline in the total number of children per family. While there has been significant variation both nationally and locally in access to birth control, typically as household income increases the number of children decreases. One potential confounder between Egypt’s historical canals and wealth would be if families closer to canals faced greater incentives to have more children. To test this mechanism we use a measure of the total number of children born to every woman between the ages of 15-49, which is reported across all the waves of the DHS.

Before turning to the results, we briefly recapitulate the mechanism linking our four distinct confounders and our wealth measure, the section of the DHS survey the data comes from, and a short description of each variable:¹⁷

- Waterborne illness, Children: Percentage of children in the household who are stunted (“Stunting”).

¹⁷Because the DHS includes many related variables, the Appendix includes a comprehensive set of results, grouped thematically, to show that these associations are robust to a range of different measures.

Table 1: Correlation Tests, Historic Canal Proximity and Wealth Confounders

	<u>Model 1</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>
	Stunting	BMI	Births	Children
Distance to Canal (M, log)	10.62 (18.97)	-1.787 (9.142)	-0.0158 (0.00890)	-0.0207 (0.110)
Observations	40818	76934	76934	76934
Governorate & Survey Year FE	Yes	Yes	Yes	Yes
Adjusted R^2	0.055	0.408	0.428	0.110

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

- Waterborne illness, Adults: Rohrer’s Index, a measure of body mass index for all women surveyed by the DHS (“BMI”).
- Demographic Transition: Female respondents reported number of births (“Births”).
- Demographic Transition: Female respondents reported ideal number of children (“Children”).

Table 1 presents the results of two-way fixed effects regression models assessing whether or not these wealth confounders correlate to our proposed instrument, proximity to major historic irrigation canals.

Results from Table 1 are encouraging in that none of the health measures correlate with proximity to canals at a level where the null hypothesis can be rejected. To sum up, proximity to a historic canal is not associated with higher rates of stunting, which we would expect if proximity to a canal increased exposure to water borne illness for children or adult women. Nor do we see evidence that proximity to Egypt’s historic canal is associated with larger families or preference for more children. While the exclusion restriction is ultimately an assumption— i.e. untestable— the combination of historic evidence, epidemiological, agricultural, educational, and population data should raise confidence that the path connecting Egypt’s historic system of major irrigation canals to contemporary poverty would most plausibly run through the *izba* system.

Table 2: Relationship Between ‘Izba Density and Wealth

	Model 5	Model 6	Model 7	Model 8	
	<i>Reduced</i>	<i>Full</i>	<i>Falsification</i>	<i>1st Stage IV</i>	<i>2nd Stage IV</i>
	<i>OLS</i>	<i>OLS</i>	<i>OLS</i>	<i>OLS</i>	<i>2SLS</i>
‘Izba Density	-.00342*** .00076	-.00422*** (.0006)	-.00422 (.0006)		-.0155*** (.00325)
Kafr Density			.0005 (.00287)		
Meters to Historic Canal (log)				-1.872*** (.138)	
Observations	69,400	69,400	69,400	69,400	69,400
Controls	No	Yes	Yes	Yes	Yes
Governorate & Survey Year FE	Yes	Yes	Yes	Yes	Yes
r^2	.2754	.4672	.4672		
F Statistic				43.79	

Cluster robust Clustered robust standard errors at the village in parentheses

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Results

As noted, because we pool multiple waves of the DHS survey we include survey year fixed effects. Egypt’s first level administrative division, known as the governorate, plays an important role in the provision of public goods and general operations of the state.¹⁸ Thus we also apply fixed effects to account for unobserved heterogeneity at this level. Finally, since treatment is effectively assigned at DHS surveying cluster, we enter cluster robust standard errors at that level.

Table 2 presents the results of our examination into the influence of the ‘izba on contemporary wealth. Model Five shows the reduced form, estimating the effect of ‘izba density on wealth with only minimal specifications. Model Six includes full controls.¹⁹ Model Seven

¹⁸These are correct as of the latest survey wave in 2014, they have since changed. They are: Cairo, Alexandria, Port Said, Suez, Damietta, Dakhaliyya, Sharkiyya, Qalyubiyya, Kafr El-Sheikh, Gharbiyya, Menoufiyya, Beheira, Ismailiyya, Giza, Beni Suef, Fayoum, Minya, Assiut, Sohag, and Aswan. The small governorates of Qena and Luxor are combined in the DHS data, as well as the governorates of Matrouh, Wadi Gedid, Red Sea, and North and South Sinai (as “Frontier” governorates).

¹⁹These, specifically, include: a dummy for whether DHS identifies the cluster as a rural (vs. urban) location, the area of pasture as well as cropland, the sex ratio of children, the log distance to major road (identified by OpenStreetMap), the age of the head of household, the age of the interviewee, and a dummy for whether the head of household is a male (vs. female).

presents the results of the falsification test by including a measure of *kafr* density. Model Eight is the instrumental variables regression.²⁰ Complete results for each model are available in the appendix.

A variety of factors contribute to the economic status of a given Egyptian family. Results in Table 2 suggest an important but as-yet unappreciated structural factor: whether or not a family resides in an area where *‘izba* were historically dense.²¹ The historic density of these coercive agricultural institutions proximate to a given family is strongly and inversely correlated with that family’s wealth, and its coefficient is relatively stable in terms of magnitude, including once the model is adjusted to account for theoretically relevant covariates. To help illustrate the relationship, Figure 3 presents the predicted shift in our dependent variable, an asset index measuring household wealth, from the fifth to the 95th percentile of the count of *‘izba* within the catchment area of the cluster, holding all other variables at their means (the underlying histogram presents the distribution of the *‘izba* variable).

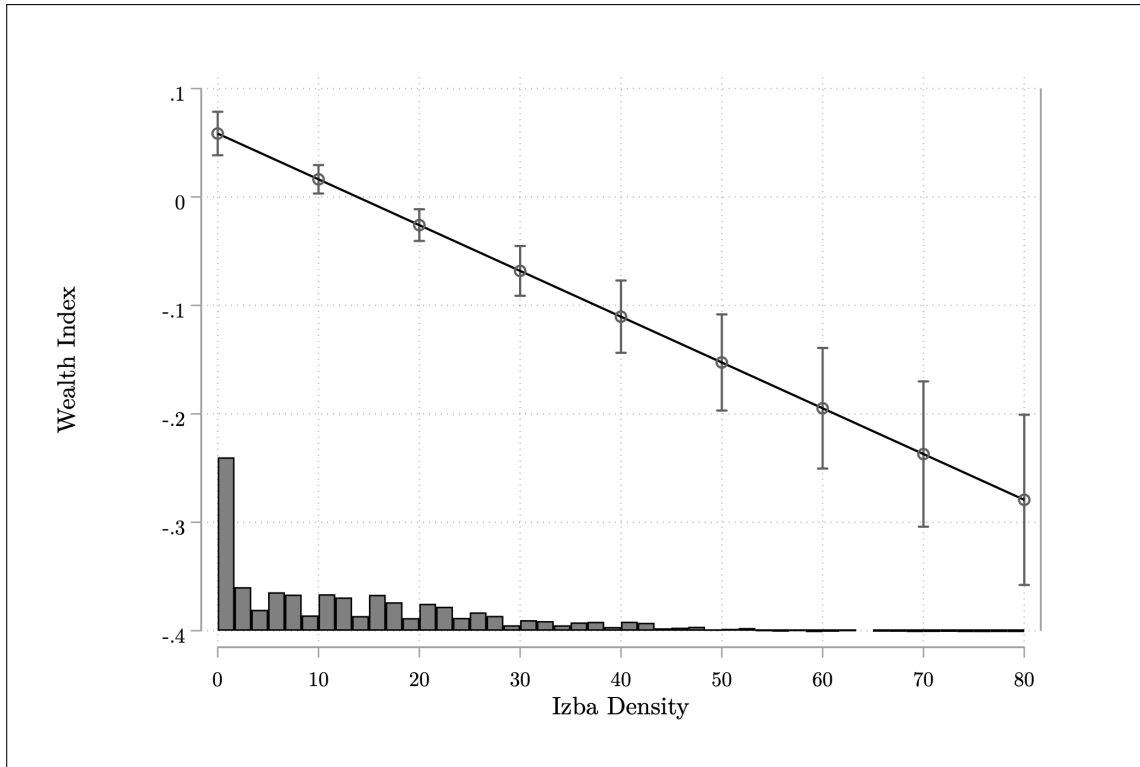
Models Seven and Eight provide further support for the argument. In the falsification test (Model Seven) *kafr* density does not register an effect on contemporary wealth that is different from zero at conventional levels of statistical significance ($p = .26$), while the *‘izba* coefficient is stable. More importantly, we can reject the null hypothesis that $\beta_{izba} = \beta_{kafr\ density}$ ($p = .000$). This raises confidence that our *‘izba* measure is not an artifact of an unobserved confounder related to our measurement strategy. This falsification test is particularly important for ruling out a channel between the coercive labor institutions that were historically ubiquitous throughout the Egyptian countryside, and the institutionalized violence and control concentrated by the *‘izba*.

Our instrumental variables regression (Model Eight) provides evidence that historic *‘izba*

²⁰We use the `ivreghdfe` suite of commands produced by Sergio Correia <https://github.com/sergiocorreia/ivreghdfe>.

²¹In the appendix we provide a series of robustness checks, including dropping from the analysis all respondents who report having moved, dropping all residents designated by DHS as living in an “urban” cluster, using as independent variable a count of *‘izba* where the owner had a formal title (e.g. pasha), dropping all frontier governorates, and logging our independent variable. We also use a multilevel model to fit the data, including random intercepts at the level of the DHS cluster. In all these specifications the results are substantively unchanged.

Figure 3: Marginal Effects of ‘Izba Density on Family Wealth



density influences contemporary family wealth.²² The first stage is strongly and, as expected, inversely correlated: the closer a respondent lives to a historic irrigation canal, the more dense ‘izba become.²³ The second stage results of Model Eight identify the average treatment effect of ‘izba density: families living in historically ‘izba dense areas are significantly poorer than those living in areas where historical ‘izba presence was sparser.

The ‘izba dominated Egypt’s agricultural economy for a century yet were dismantled as part of land reforms designed to alleviate poverty and landlessness. For some, the transformation was obvious: In Saad’s study of a former ‘izba property, she notes how, just a few years following the 1952 Revolution, distinctions between ‘izba residents, migrant labor, and landed peasants had “disappeared completely” (1989, 37). And as Stauth wrote

²²Our instrumental variable passes the appropriate tests. The Kleibergen-Paap Wald F Stat for weak identification is 170.255, this allows us to reject the null hypothesis that the equation is weakly identified. The Kleibergen-Paap LM statistic for underidentification is different from zero, rejecting the null hypothesis of underidentification.

²³The appendix produces small-scale historic maps that are further supportive of this relationship.

in 1983, “Today, the *’izba*, as the classical unit of cash-crop production, has lost its former importance in Egyptian agriculture... the big estate as a production unit separated from the village economy has in fact almost completely vanished” (1990, 286). Yet according to our data the positive effects were short lived at best- there is a consistent relationship between historic *’izba* density and contemporary patterns of wealth and poverty. The following section investigates why this is so.

Identifying Mechanisms

Almost 70 years after the Egyptian government declared war on “feudalism,” formerly *’izba*-dense areas remain poorer than their neighbors. Somewhat surprisingly, this relationship persists despite far-reaching reforms designed explicitly to eradicate the legacy of the *’izba* and allow former tenants to realize the full value of their labor. We motivate our investigation of mechanisms by noting how reforms such as these often have unforeseen consequences that persist over time (Pierson 2004). Furthermore, land redistribution programs are exactly the types of top-down political reforms that, due to their scope and complexity, are particularly likely to trigger unintended outcomes (Sikor and Müller 2009, Bates 1981).

With these caveats in mind, our naive expectation is that redistributing land to the poor should decrease poverty: land is a valuable asset not only in terms of providing stability, but because it can provide income when rented or sold (Banerjee 2000). Indeed, drawing on evidence from Columbia’s 1968 reforms Galán finds that receipt of land served as a reservoir of credit that allowed beneficiaries to enter urban markets and invest in education (Galan 2020). However, these benefits can be reduced or even reversed by limits on the use of land gained via reform. In Mexico, Dell finds that prohibitions on renting and transference, as well as requirements that politicians support decisions over use, reduces development of redistributed land (Dell 2012). Likewise, in India, inheriting land without the ability to freely enter the labor market— due to cultural norms— has adverse consequences for household wealth (Fernando 2016). We have further evidence that the connection between land and

labor mobility may also matter, in that plausible “exit” opportunities to more profitable geographic or sectoral opportunities can lower poverty (Hnatkowska, Lahiri and Paul 2012, Hornbeck and Naidu 2014, Méndez-Chacón and Patten 2021).

The qualitative data on the Egyptian reforms suggests the importance of these factors. The Free Officers reforms granted to former *‘izba* sharecroppers a small plot (usually 2-5 feddans— one feddan is slightly larger than one acre) of agricultural land that they could pay off over 30 years (Higher Committee on Agricultural Reform, Press Department 1955, 3). Richards describes the logic of these distributions: “primarily ex-tenants received land, since only they were presumed to have the necessary farming skills. Landless day laborers, by contrast, acquired comparatively little land” (1982, 177).²⁴ In effect, former *‘izba* residents—the “ex-tenants”— disproportionately benefitted from these reforms (Saad 1989, 53; Margold 1957, 13.) One condition of the redistribution, however, was that owners could neither sell nor divide through inheritance their land for thirty years (Warriner 1962, 33-35).²⁵ As Weyland puts it, “Nasserist reforms have enhanced the cultivator’s position by small land grants and by legally securing tenure systems in his favor— at the same time the reforms thus had the effect of securing the cultivator’s attachment to the land” (2002, 97).

Anchoring beneficiaries to former *‘izba* land provides suggestive evidence of a linkage to contemporary poverty. A second link arises because the beneficiaries of the land reforms were also required to join new, government-organized agricultural cooperatives (Radwan 1977, 15). While having to join a co-op was, according to the Egyptian government, a “severe compulsion,” it had a certain logic (Higher Committee on Agricultural Reform, Press Department 1955, 6). These institutions would “replace the former landowner in the organisation of cultivation, provision of credit and other inputs, and the marketing of produce,” allowing the new smallholders to maintain the benefits of production at scale (Radwan 1977, 57). The co-op system also let the state structure economic output by buying

²⁴Similarly, in his case study, Adams notes how his village lacked many large landowners, so patterns of landholding and landlessness was not influenced by the reforms (1986, 164).

²⁵Saad’s ethnographic work shows how many families developed informal ways to subdivide the plots to maintain inheritance traditions inside families (Saad 1989, 100-107).

a mandated quota of the production at a set price, before re-selling it— usually at a profit— on the world market (Warriner 1962, 33-35, 43-49).

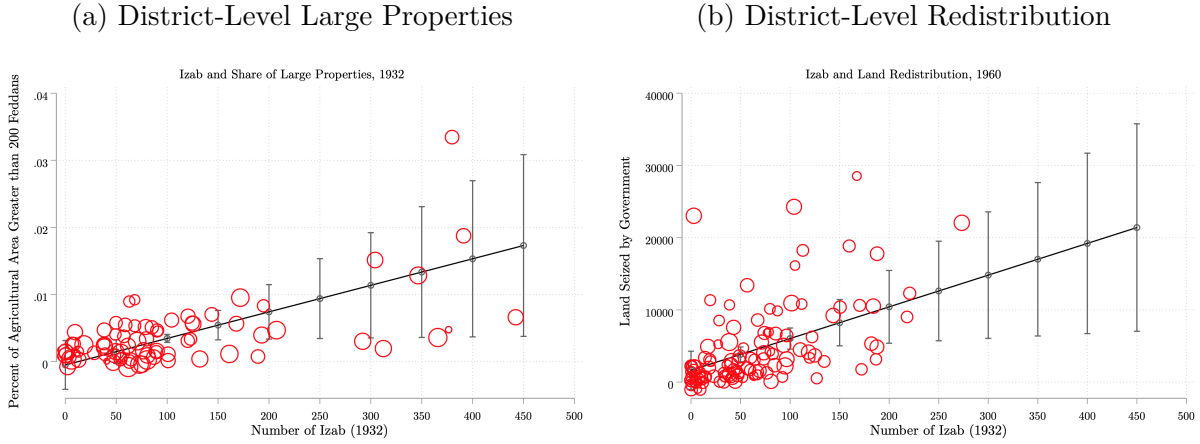
Researchers have also documented the negative consequences of this system for the farmers. As Radwan notes, “the prices of compulsory deliveries were usually fixed at much lower levels than those that could be obtained from the free market” (1977, 72). One case study even calculated that co-op farmers were losing up to 40% of the value of their crop because of state monopsony (Adams 1986, 161). As Saad summarizes, “a common view is that, due to these restraining factors, any kind of rational calculation would make them prefer to be wage laborers rather than Agrarian reform beneficiaries” (1989, 75). Indeed, as one farmer lamented, “If I had not taken *Islah* land (land distributed as part of Nasser’s reforms), it would have been better for me. I would have been working as a laborer for 4 pounds daily” (cited in (Saad 1989, 75)).

The irony of replacing predatory *‘izba* landlords with mandatory government co-ops, even down to using former *‘izba* overseers (*nazir*) as managers of the new co-ops, has not been lost (Owen 1986, 81-82). In other cases, certain *‘izba*-owning families re-emerged as politicians in Nasser’s mass organizations (Binder 1978, Ansari 1986).²⁶ These dynamics are not lost on more critical studies of Egypt’s reforms: Staath described the transition from *‘izba* to co-op as one “without discontinuity” (1989, 123). For Richards, “it would not be a great distortion to say that Land Reform Cooperatives were “Government ‘Izab” (1982, 181). And Weyland described how “in the wake of Nasserist reforms the Egyptian countryside had become ... one large *‘izba* operated primarily according to the state’s interests.” (2002, 96). These quotes suggest that the specific policy bundle in Nasser’s celebrated land reforms link historic *‘izba* density and contemporary poverty: instead of freeing former tenants to exploit their valuable new asset in the market, it spatially and economically chained them to relations of production that were not noticeably different than those they had just escaped.

Unfortunately, micro-level data on Egyptian land reform is not recoverable, meaning that

²⁶See in particular Sidney Chesnin’s M.A. thesis (1974), which formed the backbone of Binder’s claims regarding the *‘izba*. We are grateful to Sidney Chesnin for sharing this research with us.

Figure 4: Relationship to Key Outcomes



investigations are limited to the national level, and then only a few decades after its passage (Abdel-Fadil 1975, Radwan 1969, Saab 1967, Warriner 1957).²⁷ However, we can exploit some of this data, in conjunction with the aforementioned *‘izba* data, to provide suggestive evidence that the link between historic *‘izba* density and contemporary poverty runs through the land reforms themselves. Figure 4 shows two plots correlating our *‘izba* density variable with two separate outcomes measuring exposure to land reform (points weighted by total population). Figure 4a correlates the density of *‘izab* in a district to the share of land in the district greater than 200 feddans (which would be universally marked for redistribution in the reforms). Figure 4b uses district level data on reform land (to our knowledge the most disaggregated available), compiled shortly after the reforms were executed, to show the strong correlation between the number of pre-reform *‘izab* and amount of land redistributed.

While not dispositive, and clearly at risk of an ecological fallacy, the data presented in Figure 4 are consistent with the argument that areas with a higher density of *‘izba* were disproportionately more likely to be exposed to the land reforms. Combined with the qualitative accounts above, this should raise confidence that there could exist a tie between *‘izba* density and subsequent exposure to land reform. The particular linkage we expect is that inhabitants of *‘izba*-dense areas pre-reform were more likely to receive redistributed land

²⁷Chapter One of Verme, et. al (2014) offers a helpful overview.

Table 3: Relationship Between *‘izba* Density, Landownership, and Mobility

	<u>Model 10</u> <i>Landowner</i>	<u>Model 11</u> <i>Works Other’s Land</i>	<u>Model 12</u> <i>Residence</i>	<u>Model 13</u> <i>Never Moved</i>
Izba Density	0.000660** (0.000208)	-0.00235+ (0.00122)	0.135*** (0.0320)	0.00151*** (0.000381)
Observations	76925	4259	58259	58087
Governorate & Survey Year FE	Yes	Yes	Yes	Yes
Adjusted R^2	0.138	0.058	0.103	0.100

Clustered robust standard errors at the village in parentheses

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

post-reform.

The disaggregated *‘izba* data and the DHS surveys allows us to investigate additional empirical implications of the above causal mechanisms. First, areas with a higher density of historic *‘izba* feature systematically *higher* rates of contemporary landowning due in part to receipt of redistributed land. Two DHS questions allow us to assess this implication, the first querying whether or not the household owns agricultural land, the second querying a small subset of one survey wave if the husband works on someone else’s land. Second, that those who received redistributed land, because of the strictures outlined above, found it harder to move. Two measures in the DHS surveys allow us to examine this implication, the first asking how many years the respondent has lived in their current village, the second asking if respondents have ever moved.

We model these four outcomes in Table 3, with all model specifications following those in Model Seven from Table 2.

Table 3 shows how areas with more historic *‘izba* systematically correlate with multiple measures of contemporary land ownership and labor mobility. The relationship for the main question is strong ($p < .01$) and robust to our suite of control variables as listed above: historic *‘izba* dense areas feature more landowners today. The smaller sample of husbands yields similar, although slightly weaker ($p = .055$) results: areas with more historic *‘izba* featured fewer contemporary agricultural laborers working someone else’s land (presumably because they work their own). This is consistent with what we could expect: residents of

former *'izba*-dense areas are landowners because of the receipt of reform land. Our third and fourth models suggest an avenue of temporal and spatial persistence: residents of former *'izba*-dense areas report that they have lived in a given location for longer and are more likely to indicate that they never moved. While we again note that micro-level data on received land is unfortunately not available, looking across both categories of mechanisms we interpret this evidence as consistent with our claim that greater *'izba* density is associated through the land reform with a pattern of immobile, landowning but asset-poor families.

Conclusion

We combine historic data on the spatial distribution of thousands of Egyptian *'izba* with contemporary survey data from thousands of Egyptian families to identify a connection between the paradoxical, poverty-embedding results of Egypt's post-1952 land reforms and the underlying structures dating to the country's prewar Cotton Boom. Qualitative evidence, a placebo test, as well as an instrumental variables analysis all raise confidence in both our measurement strategy and the causal effect we propose. While the disaggregated individual-level data required to fully evaluate the mechanism is lacking, initial tests suggest that Nasser's land reforms paradoxically institutionalized labor immobility and depressed earning potential among beneficiaries, mimicking a pattern observed elsewhere (Goldstein and Udry 2008). Taken together, our findings suggest that even milder coercive labor regimes, ones that fall short of chattel slavery, continue to limit economic growth long after they have been formally abolished. That evidence of this relationship is observable even following canonical reform efforts designed to obviate the impact of these institutions speaks to their underlying strength.

There are a variety of ways our analysis might be improved. First, our measure of contemporary respondents' historic exposure to *'izba* is highly disaggregated but noisy; ideally we would be able to better trace our respondents' genealogies to more concretely isolate their— or their family's exposure— to historic *'izba*. To the extent that better data on

the beneficiaries of land reforms could be recovered, it would also help to more precisely isolate the ways that land reform operated at the local level. And while our data about the geography of Egypt's cotton economy is new, it also necessitates treating every *'izba* as identical: our key independent variable, isolated from a historic gazetteer, is comprehensive but shallow. It lacks useful additional information such as the acreage, working population, and age of each *'izba* that likely influence their particular legacies. Future scholars should be alert for opportunities to revisit and potentially revise our findings as better data becomes available.

More specifically, scholars of Egypt's agricultural economy describe considerable coercion and inequity, yet these investigations have been highly specific, often focusing on personal experiences in a single village or town (Abaza 2013, Saad 1989). Other investigations identify the *'izba* as a historic institution inexorably linked to Egypt's pre-war cotton economy (Mitchell 2002). We connect these accounts to show how the *'izba's* influence was both widespread and persistent. And of course, our findings complicate the narrative of Egypt's much lauded yet rarely evaluated land reforms. While they may have cemented the new regime's popularity by undercutting its political opponents, it did so in a way that created a new strata of land rich, asset poor Egyptians.

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