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ABSTRACT

This paper explores the foundations of religious influence in politics and society. We show that an important Islamic institution fostered the entrenchment of Islamism at a critical juncture in Indonesia, the world's largest Muslim country. In the early 1960s, rural elites transferred large amounts of land into waqf —inalienable charitable trusts in Islamic law—to avoid expropriation by the state. Regions facing a greater threat of expropriation exhibit more prevalent waqf land and Islamic institutions endowed as such, including mosques and religious schools. These endowments provided conservative forces with the capital needed to promote Islamist ideology and mobilize against the secular state. We identify lasting effects on the size of the religious sector, electoral support for Islamist parties, and the adoption of local sharia laws. These effects are shaped by greater demand for religion in government but not by greater piety among the electorate. Waqf assets also impose costs on the local economy, particularly in agriculture where these endowments are associated with lower productivity. Overall, our findings shed new light on the origins and consequences of Islamism.

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1 Introduction

Religion, "the heart of a heartless world" (Marx, 1844), has been a driving force of historical change. Major episodes such as the Iranian Revolution, the fall of Communism, and the rise of the religious vote in the United States reveal a growing influence of religion on public life worldwide. The Muslim world has witnessed a corresponding rise in support for Islamism, the movement to "return to the scriptural foundations of the Muslim community…for application to the present-day social and political world" (Euben and Zaman, 2009). Yet, one finds substantial variation in religious politics within Islam (Cammett and Luong, 2014) as well as other faiths (Barro and McCleary, 2005). Across all religions, the causes of this variation, and the role that culture and institutions play in explaining it, remain poorly understood.

In contrast, there is a wealth of evidence on how religion shapes human behavior and development. Researchers have explored links between religion and economic growth, looking at both Christian (Becker and Woessmann, 2009; Cantoni et al., 2018) and Muslim societies (Kuran, 2011; Rubin, 2011). Islamic practices such as pilgrimage (Clingingsmith et al., 2009) and fasting (Campante and Yanagizawa-Drott, 2015) are known to affect socioeconomic well-being.[1] Others have studied how religion mediates institutional change (Belloc et al., 2016; Chaney, 2013; Platteau, 2017).

Much less is known about why different societies endorse the mixing of religion and politics. To explain the resurgence of religion in the public sphere, other scholars have focused on the failure of the secular state to uphold traditional values in the global era (Almond et al., 2003; Habermas, 2008). This paper instead emphasizes the fundamental role of institutions. In contrast to previous work showing how culture shapes institutional change (e.g., Greif, 1994), we find that institutional shocks in the religious sphere lead to downstream cultural and political change. In particular, legal institutions that provide permanent and inalienable protection to religious schools and houses of worship can empower religious actors and transform these organizations into effective venues for political activism. Our main interest lies in Islamic charitable trusts, which are pervasive in the Muslim world. We show these can be used to mobilize political support and wage ideological warfare against secular forces.

We use a natural historical experiment in the world's largest Muslim country, Indonesia, to identify the effect of Islamic institutions on religious preferences, politics, and social organization. Our analysis centers on the aborted land reform of the 1960s known as the Basic Agrarian Law (BAL). Following other work on critical junctures (Banerjee and Iyer, 2005; Dell, 2012), we identify the consequences of this episode for the revival of the Islamist movement in Indonesia. As part of the BAL, the Sukarno regime attempted to expropriate and redistribute large holdings. While the redistribution effort ultimately failed, a policy loophole led to a resource windfall—inalienable land endowments—for Islamic organizations in regions facing the greatest expropriation threat. These endowments contributed to entrench Islamism by providing conservative forces with the capital needed to proselytize Islamist ideas and actions.

Importantly, the BAL exempted religious lands held in Islamic charitable trust, known as *waqf*, from redistribution. Knowing this, many landowners transferred expropriable land to *waqf* endowments under the authority of local religious leaders. We show that areas intensely targeted by the land reform

[1] Others argue that economic risk increases religiosity (e.g., Bentzen, 2019; Chen, 2010). See Kuran (2018) for a comprehensive survey of the literature on Islam and economic performance.

exhibit more pervasive *waqf* land and institutions endowed as such today, including mosques and Islamic schools. In affected districts, these endowments first arise in the 1960s and then exhibit sustained growth thereafter, as the initial resource shock laid the foundations for future expansion. This stands in contrast to the lack of any systematic effects of the reform on land inequality over the ensuing years, which is consistent with most expropriated lands being reclaimed in the late 1960s as the land reform fell short of its objectives and was largely undone (Department of Agriculture, 1965; Utrecht, 1969).

Several decades later, regions facing greater expropriation intensity in the 1960s exhibit stronger support for Islamist political parties and a deeper influence of Islamic precepts on local governance, ranging from the adoption of *sharia* regulations to the use of Islamic courts and vigilante activity by Islamist organizations.[2] At the same time, we show that the advancement of Islamism is not fueled by greater religiosity per se. This is an important finding. Like most secular (authoritarian) governments in Muslim countries past and present, the Suharto regime that ruled Indonesia from 1967–1998 actively promoted Islamic culture and piety while aggressively suppressing its political organization. The democratic transition brought an opportunity to capitalize on the Islamist fervor that had been nurtured in the conservative schools and mosques borne out of the *waqf* transfers during the 1960s.

We explore these lasting effects of the land reform by assembling one of the most comprehensive datasets ever used to measure the spread of Islamism today. Our data include, among others, (i) administrative records from 243,000 mosques, 26,000 Islamic schools, 1.2 million Islamic court cases, and 400 *sharia* regulations; (ii) multiple surveys on religious practice, beliefs, and political preferences; (iii) textual data from 241,000 legislative campaigns; (iv) district-level electoral returns; (v) village-level census data on land use and Islamic microfinance; and (vi) media-based reports on religious vigilantism.

We identify causal effects of the land reform using a *difference-in-discontinuity* design. This strategy exploits two sources of identifying variation. The *discontinuity* uses policy variation at a population density threshold determining the scope of expropriation under the BAL. In districts with more than 400 people/km^2, the maximum size of holdings was set at 5 hectares (ha) as opposed to 9 ha in districts below 400 people/km^2. The *difference* exploits variation in the number of marginal expropriable landholdings (MEH) between 5–9 ha. The interaction of the difference and the discontinuity isolates the effects of *expropriation intensity* under the law. Importantly, the number of MEH is continuous across the 400 threshold. Our main specification thus identifies effects of the reform by measuring the difference in outcomes between districts with many and few 5–9 ha holdings, and by estimating whether this difference changes discontinuously at the 400 threshold above which these holdings become expropriable.

We validate this design by showing that expropriation intensity is unrelated to potential confounders of Islamism before the land reform, including electoral support for Islamist parties and the prevalence of violent Islamist insurgencies in the 1950s. We also show the absence of pre-trends in *waqf* endowments in the years leading up to the land reform. Moreover, as detailed in Section 6.2, our key insights are robust to accounting for identifying variation at other population density thresholds in the BAL. There were two other thresholds at 50 and 250 people/km^2 below which the scope of expropriation changed, exempting progressively larger holdings from redistribution. However, given the staggered implementation of the

[2]The *sharia* regulations we examine cover many facets of life, including, among others, the payment of alms (*zakat*), the banning of alcohol, and the requirement that women wear the Islamic veil.

BAL and its abrupt halt in the mid-1960s (see Section 2.3), redistribution efforts were much more limited in regions affected by these thresholds.

Our findings point to a shift in both the demand for and supply of religious politics. Modern survey data show that respondents in districts with greater expropriation intensity in the 1960s are more likely to scrutinize the religion and religiosity of politicians, and to support the adoption of *sharia* regulations, even though they do not display higher levels of personal piety. On the supply side, legislative candidates in these districts are more likely to run on explicitly Islamist themes. We also find greater politicization of schools, with teachers and students more likely to run for office, and more likely to campaign on an Islamist platform. These results corroborate our findings on electoral and policy outcomes and, collectively, highlight the influence of Islamists beyond the ballot box.

Further evidence suggests that these downstream effects of the land reform most plausibly originated in the *waqf* land endowments of 1960s. First, we rule out alternative pathways related to changes in land inequality, general public goods provision, and anti-Communist violence in the mid-1960s. Second, while prioritizing the reduced form, we also consider an instrumental variable (IV) approach to identifying the political and economic impacts of the *waqf*, using expropriation intensity as an IV for *waqf* land. These results clarify that the reduced form effects on the *waqf* and on Islamism are indeed driven by the same regions, namely those facing the greatest expropriation intensity in the 1960s and where *waqf* endowments nurture conservative Islamic institutions today.

Why would an increase in land held in *waqf* impact support for Islamism? The effects of the *waqf* are tied to its specific institutional features and its ability to sustain various Islamic organizations over time. *Waqf* are inalienable under Islamic law and provide autonomy from the state. Hence, agricultural lands held under *waqf* provide a secure, steady stream of revenue for the organizations that operate them. Unlike moderate Islamic movements that are backed by large non-governmental organizations and embrace the secular state, Islamist movements have historically faced tighter financial and political constraints in Indonesia. The *waqf* transfers caused by the BAL unlocked resources for these conservative forces and may have allowed them to effectively compete with their closest political rivals—moderate Islamic movements. For instance, *waqf* lands are often used to support Islamic boarding schools, many of which are privately funded and have the option to remain outside the government-mandated education system (Pohl, 2006). In Indonesia, as elsewhere in the Muslim world, these schools often are key conduits for Islamist ideas and action (Van Bruinessen, 1995, 2008; McVey, 1983).[3] Many Islamic school leaders have strong ties to Islamist political parties, whose platforms call for an Islamic state based on *sharia* law.

We close by investigating whether the land reform affected economic development by immobilizing land for religious purposes. Despite sizable political impacts, the economic effects of the *waqf* transfers seem to have been more circumscribed. We find productivity losses in agriculture but not for broader measures of development. This is consistent with the fact that the *waqf* endowments in modern Indonesia tend to be confined to agricultural lands supporting religious institutions rather than wider swathes

[3]In 2012/13, roughly 3.8 million or around 7.3% of all students across Indonesia were enrolled in Islamic boarding schools, *pesantren*, according to the Ministry of Education. Other Islamic day schools, madrasa, are also supported by *waqf* and play an important role in shaping religious attitudes. However, they are less focused on producing religious scholars, clerics, and leaders than are *pesantren*. See Section 4.1 for further discussion of these differences. According to the Indonesia Family Life Survey, by 2014, nearly one-third of Indonesians had attended a *pesantren* or madrasa at some time in their educational years.

of the economy. Still, such lands often come with restrictions on crop type, tenancy arrangements, and labor coercion (under religious authority) that may result in efficiency losses.[4] In sum, although a small part of the overall economy, *waqf* endowments can have outsized influence on society through their effects on politics.

These findings shed new light on the legacies of the *waqf*, a widely adopted institution in Muslim societies. Kuran (2001, 2011) describes how the traditional *waqf* contributed to economic and political stagnation in the Middle East.[5] Our paper provides among the first empirical evidence in support of several hypotheses previously formulated about the *waqf*. Note that the *waqf* in our context are akin to the more flexible "modern" *waqf* in Kuran's (2016) classification, similar to other *waqf* established in the contemporary era. First, we find that the exemption of religious lands in the BAL led landowners to shield their assets by registering them as *waqf*. This corroborates extensive work by historians showing that the *waqf* has been used for centuries as a protection against state expropriation (see Section 3.1). Second, we find that *waqf* lands have deleterious effects on the agricultural economy, in keeping with Kuran's thesis about the institution's broader negative economic impacts. Third, our paper speaks to recent work on the *waqf*'s political legacies (Kuran, 2016). We find that a large resource base immobilized in religious assets outside state purview can foster religious interference in politics in the context of a democratic and decentralized political system. This finding has important implications for other religious societies undergoing democratization.

Across spiritual traditions, religious institutions provide stability and privacy to the individuals who operate them, which makes them ideal venues for political activism. We hypothesize that three characteristics of the institutions we study caused their sizable influence on Indonesian politics and could similarly define the role of clerical institutions in other contexts. First, inalienable religious institutions can protect particular groups during sustained periods of political oppression, allowing them to survive until they can again compete or seek indirect influence in the political arena. This was true historically not only for Islamist movements under hostile regimes (Egypt, Indonesia, Turkey), but also, for example, for conservative movements associated with the Roman Catholic Church such as the Opus Dei. Second, institutions that attract charitable giving are bound to foster opportunistic alliances between elites and religious interest groups to influence law and policymaking.[6] Third, religious institutions outside government purview can be used to foment opposition to the state. In the same way that radical clerics have used mosques and religious schools to cultivate Islamism in Indonesia, there is widespread evidence that radical leaders in India have used temples to cultivate Hindu nationalism.[7]

Related Literature. Our paper contributes new insights to the political economy literature on religion. In a survey of this literature, Iyer (2016) notes an important puzzle, namely the persistence of religion despite the array of secular forces that militate against it. Our findings suggest that the durability of reli-

[4] Like other governments across the Muslim world, Indonesia's has been pushing for *waqf* formation in new areas of the economy (Bank Indonesia, 2016). This may imply future scope for economy-wide impacts.

[5] This is in spite of the fact that *waqf* also helped Islamic society to expand historically (Michalopoulos et al., 2016).

[6] In the U.S., groups such as Priests for Life, the Women's Christian Temperance Union, and the American Jewish Congress "collectively spend over $350 million every year attempting to entrench religious values into the law" (Robinson, 2015).

[7] In 2015, the state of Kerala moved to forbid military drills ('shakha') on temple premises by the Rashtriya Swayamsevak Sangh Hindu nationalist group, triggering the opposition of the right-wing Bharatiya Janata Party party (*Times of India*, 5 June 2015).

gious institutions and their role in organizing political coalitions are important factors in understanding this puzzle. This echoes a theme in Rubin (2017), whose work, like that of Chaney (2013), suggests that Islamic authorities were granted a large say in politics historically as a result of the threat they posed to ruling elites. Our findings shed light on the microfoundations of this threat.[8]

Our paper also adds to a wider social science literature on the rise of Islamism (Berman, 2011; Blaydes and Linzer, 2011; Fourati et al., 2019; Pepinsky et al., 2012). Binzel and Carvalho (2017) argue that the Islamic revival in Egypt—and perhaps elsewhere in the Muslim world—is rooted in unmet aspirations that come with greater education but limited scope for upward mobility. Increased religiosity in this case helps individuals to cope and recalibrate expectations. While their study draws a connection between growth in piety and the resurgence of Islamism, we find that the two need not be related and may respond to different underlying triggers.[9] This is consistent with Roháč (2013) who argues that voters support Islamists not due to piety but because they offer the only credible commitment to provide public goods. We rule out this reciprocity-based mechanism, finding that public goods are not systematically different in districts with greater expropriation intensity, despite greater prevalence of *waqf*. Finally, consistent with Platteau (2017), our results imply that the fusion of religion and politics is not quintessential to Islam per se. Instead, the strength of fundamentalist forces within the broader Muslim community is rooted in their ability to capture important institutions within Islam's highly decentralized organization.

We also provide causal evidence on the institutional mechanisms driving the emergence and success of Islamist groups. Overall, there is little evidence on the role of (potentially apolitical) religious organizations in religious politics. Our key innovation is to isolate a shock to the supply of conservative religious institutions, which fuel Islamism through three complementary mechanisms: (i) by expanding opportunities for ideological exposure, (ii) by helping to mobilize around elections and key policy issues, and (iii) by cultivating future political leaders (see Section 5.4). Iannaccone and Berman (2006) argue that participating in "extreme" religious behavior can screen out potential free-riders. This provides Islamist parties with a screening technology that other parties may not have, which makes institutions like Indonesia's Islamic boarding schools particularly useful for political mobilization. Our results suggest that independent, *waqf*-endowed institutions are important for understanding why Islamism gradually rose to prominence after a long period of marginalization (see, e.g., Lacroix, 2011; Wickham, 2002, 2013).

Finally, we add to a vast literature exploring the link between culture and institutions (Alesina and Giuliano, 2015; Bisin and Verdier, 2017; Lowes et al., 2017). Numerous studies identify a relationship between economic circumstances and religious culture (see reviews in Carvalho et al., 2018; Chen and Hungerman, 2014; Iannaccone, 1998). Much less is known about how religious institutions shape culture and vice versa. Our findings are consistent with a shock to religious institutions in the 1960s feeding back onto religious culture and political preferences.

[8] Our findings also relate to Heldring et al. (2017) who link the dissolution of religiously-owned monastery lands in 15th century England to growth in innovation, agricultural commercialization, and industrial development. We show that religiously-owned land played an important role in shaping political development even though that land did not cover the vast swathes of territory it did in historical England or elsewhere in Muslim world (see Kuran, 2011).

[9] Pepinsky et al. (2018) draw similar conclusions from survey experiments in Indonesia. Moreover, Buehler (2016), who compiles the *sharia* law data we use, argues, like we do, that local variation in the institutional strength of Islamist groups is key to understanding the "Islamization of politics" in Indonesia.

The paper proceeds as follows. Sections 2 and 3 provide relevant background on the land reform and the *waqf*, respectively. Section 4 describes our data and empirical strategy. Section 5 presents our main results, and Section 6 addresses alternative explanations and robustness checks. Section 7 concludes.

2 The 1960 Indonesian Land Reform

In the tumultuous decades after independence, the Sukarno regime sought to launch a major land reform aimed at empowering poor rural households. In this section, we provide relevant background on this reform effort, known as the Basic Agrarian Law (BAL) of 1960.

2.1 Design of the Land Reform

The origins of the 1960 land reform lie in the pervasive inequality across Indonesia in the colonial era. In the early days of the Indonesian republic, land was owned through a variety of property regimes in force since the Dutch Agrarian Law of 1870. Inequality was most pronounced in Java and Bali where the average landholder cultivated no more than half a hectare and where 60% of households were landless (Soemardjan, 1962). Post-independence, President Sukarno and his supporters attempted to do away with the old colonial laws governing agriculture and to address landlessness via land redistribution.

The government first laid out detailed plans for "the termination of proprietary rights on land" in its August 1959 *Political Manifesto* (Utrecht, 1969). This prompted fears among rural landowners that comprehensive land redistribution would soon be implemented. These plans were codified in the BAL (No. 5) introduced on 24 September 1960 and a subsequent law (No. 56) introduced on 28 December 1960. The law stipulated thresholds for maximum allowable landholdings by nuclear households, with surpluses in excess of these cutoffs destined for redistribution to landless peasants.

Ceilings on the amount of land any household could own were defined in the BAL as a function of population density at the district level. These arbitrary cutoffs, which inform our empirical strategy in Section 4, stipulated that districts with more than 400 people/km^2 could have maximum holdings of 5 (6) hectares of wetland (dryland), districts with 251–400 people/km^2 could have maximum holdings of 7.5 (9) hectares of wetland (dryland), districts with 51–250 people/km^2 could have maximum holdings of 10 (12) hectares of wetland (dryland), and districts with less than or equal to 50 people/km^2 could have maximum holdings of 15 (20) hectares of wetland (dryland). A later law (No. 224) introduced on 12 September 1961 stipulated the arguably unfavorable terms of indemnification for expropriable lands.[10]

2.2 The Religious Lands Exemption

In early discussions with the Sukarno regime, Islamic leaders expressed strong reservations about restrictions on land ownership being in contradiction to Islamic law (Mortimer, 1972). The regime faced

[10]The fair price was set at 10 times the assessed annual profits from the land for the first 5 hectares and 9 times for the next 5 hectare increments with 7 times for any remaining land. The government was to deposit 10 percent of the payment in a public bank with the remainder in promissory notes that could be redeemed one year after the land was redistributed. Beneficiaries would have 16 years in which to pay the government to recoup these costs. Landowners that refused redistribution would be imprisoned for 3 months and receive no indemnification. See Huizer (1972) for further details.

significant political risks when it undertook the land reform and chose not to antagonize religious authorities by conceding that it would not violate Islamic law. Thus, the original BAL (No. 5) stipulated that religious lands, including all land under Islamic trusts (*waqf*), were exempt from redistribution.[11] Importantly, this regulation and subsequent ones did not exempt *waqf* held as family trusts but rather those held as endowments for religiously sanctioned purposes.[12] This precluded the possibility of shielding one's assets through private trust but incentivized transfers to religious leaders who managed *waqf* endowments historically (see Section 3.1). The *waqf* exemption in the BAL follows a long historical tradition throughout the Muslim world where rulers were often hesitant to confiscate *waqf* properties because they feared the consequences of seizing land "owned" by God (Encyclopaedia of Islam, 2012).

Regulations and decrees adopted after the initial BAL No. 5 clarified the exemption procedure. A Ministry of Agriculture Regulation (No. 2, October 10, 1960) stipulated that religious lands must be registered as such within six months. Act No. 10 in March 1963 mandated that registration of land with local government would prove legal validity of ownership, effectively allowing *waqf* transfers prior to the date of registration. Regulation No. 38 of 1963 clarified the definition of religious lands, ensuring that such lands were deemed to serve a religiously sanctioned purpose.

2.3 Implementation and Demise of the Reform

At the outset, the government prescribed a two-stage implementation process to be completed by the mid-1960s. Under Phase I of the BAL, redistribution would take place in the densely populated Inner Islands of Java, Bali and Nusa Tenggara Barat (NTB) where 88% of districts had a population density greater than 250 people/km^2. By 1964, redistribution efforts would expand to Phase II regions located in the sparsely populated Outer Islands.[13]

Despite this ambitious agenda, implementation was fraught with challenges. While peasant organizations linked to the Communist Party (PKI) led information campaigns in the early 1960s, most local redistribution committees established under the BAL did not become operational until late 1962. These committees were often composed of representatives of the local elite sympathetic to large landowners. As implementation slowed, vigilante groups affiliated with the PKI began unilaterally seizing property in late 1963 and early 1964, which significantly escalated tensions in the countryside.[14] After a failed coup in September 1965 by junior army officers accused of being loyal to the PKI, mass violence ensued, targeting "leftists" and Sukarno's supporters (Cribb, 2001; Farid, 2005; Roosa, 2006). The resulting violence brought land reform efforts to a standstill.

Although the land reform was never formally repealed, assessments of its legacy note that the many

[11] Article 49(3) addresses the exemption, stipulating: "Perwakafan tanah milik dilindungi dan diatur dengan Peraturan Pemerintah." This translates as "*Waqf* land with the right of ownership shall be protected and overseen by Government Regulation."

[12] These two types of *waqf* are known in Arabic as *waqf ahli* and *waqf khayri*, respectively.

[13] All but two districts in the Outer Islands had a density under 250 people/km^2. Phase I provinces included East, West, and Central Java, Bali, NTB, Jakarta, and D.I. Yogyakarta. Phase II provinces included all of Kalimantan, Sulawesi, Sumatra, Nusa Tenggara Timur, and Maluku.

[14] These so-called unilateral actions (*aksi sepihak*) were, according to Mortimer (2006), "part of a sustained PKI attempt to mobilize the poor peasants and share-croppers to assert their rights under the land reform laws of 1960, the implementation of which had bogged down under the weight of bureaucratic inertia and the resistance of interested persons and groups."

contradictions in the BAL fatally undermined its ability to reallocate land (Lucus and Warren, 2013). By 1965, only 70,420 out of the targeted 178,000 hectares (40%) had been redistributed in Phase I regions, and a mere 12,904 out of 247,570 hectares (5%) had been redistributed in Phase II regions (Department of Agriculture, 1964, 1965). A subsequent evaluation of changes in the distribution of land between the 1963 and 1973 Agricultural Censuses concluded that "there appears to be no appreciable change between censuses in inequality of holdings" (Montgomery and Sugito, 1980). Utrecht (1969) details the process by which the land reform stalled and was eventually undone throughout the country by the late 1960s as most expropriated landowners took back their properties. This was not the case, however, for religious lands held in *waqf* since the inalienability and sanctity of the land, now under religious tutelage, made it difficult if not impossible to reverse. Ultimately, the historical record points to a fundamental role of the *waqf* exemption in hindering the course of reform, as we discuss below.

3 Expropriation Threat and the Spread of *Waqf*

This section provides general background on the *waqf* and its specific use in Indonesia. We also document how elites used exemptions in the BAL to transfer land to religious institutions.

3.1 The *Waqf* in Islamic Law and History

Often described as an Islamic trust, the *waqf* is defined by the *Encyclopedia of Islam* as "the elements that a person, with the intention of committing a pious deed, declares part of his or her property to be henceforth unalienable and designates persons or public utilities as beneficiaries of its yields." A vast literature on the *waqf* argues that, ever since its introduction in Arabia soon after the death of the Prophet Muhammad, the institution served as a protection against the threat of expropriation rather than solely as a vehicle for redistribution (Gil, 1998; Encyclopaedia of Islam, 2012).[15] The sanctity of the norm against expropriation of land in *waqf* is illustrated in the first enduring record of a *waqf* from around 913 CE, which reads in part:

> This [waqf] is inviolable. Fa'iq ibn 'Abd Allah the Sicilian has renounced it, and whoever interferes in the distribution of these alms (*sadaqa*) and of this *waqf* or changes them, does so without authority .... May Allah punish him for his bad deed, for verily he has taken upon himself the burden of his sin and exposed himself to the anger of his Lord. ... He who interferes with [the regulations of] this [waqf] and who modifies it is warned of being struck by a violent death in this world or by the chastisement of the fire of Hell." (Sharon, 1966)

In principle, any Muslim can endow a *waqf*. In practice, creating a *waqf* requires significant resources, not only to cover the costs of the charitable cause identified by the founder, but also to pay an administrator's salary. Because a *waqf* is meant to last in perpetuity, the funds used to support it are often valuable assets

[15] There is significant anecdotal evidence that in numerous contexts the *waqf*, particularly the *waqf ahli* (family *waqf*), which named descendants of the founder as beneficiaries in perpetuity, was used as a vehicle for shielding wealth from redistribution mandated by inheritance laws (Crecelius, 1995; Mandaville, 1979).

that yield annual profits. Endowing a *waqf* is therefore a pious deed but one typically available to those with the means necessary for permanently alienating a tangible asset and its revenues.

Notwithstanding these standard features, Kuran (2016) draws an important distinction between the traditional and the modern form of *waqf*. The former prohibited resource pooling and mandated strict uses of the endowment as stipulated by the founder. These institutional rigidities are at the heart of Kuran's original thesis that the *waqf* stymied innovation and growth across the Middle East historically. However, more recent manifestations of the institution across the Muslim world appear more flexible than their historical counterpart. The now-pervasive modern *waqf* looks more akin to a charitable foundation that allows for institutional growth and change beyond the original founder's directive, while still restricting the use of *waqf* assets to activities with a religious purpose. To quote Kuran (2016), the modern *waqf* "has managerial flexibilities denied to its Islamic namesake", "is directed by a board of trustees rather than a single caretaker", "may invest in liquid assets", and "can engage in politics" even "in cooperation with other entities, including other *waqf*". These features are important for understanding the eventual impact of the modern *waqf* originating out of the 1960s land reform.

3.2 Usage of the *Waqf* in Indonesia

While the *waqf* institution reached Indonesia in the 1500s, the Dutch colonial administration did not legally recognize the *waqf* for much of the time they ruled the archipelago. These colonial restrictions limited the diffusion of the *waqf* in Indonesia relative to the Middle East (Abbasi, 2012; Bussons de Janssens, 1951). The creation of new *waqf* gathered pace during the 20th century first during the 1930s and again during the Sukarno regime (Djatnika, 1985; Fauzia, 2013).

While in Indonesia, as elsewhere, any charitable asset can be endowed by a *waqf*, today, the *waqf* is primarily used for supporting houses of worship and religious education. Indeed, most mosques and Islamic schools are endowed as *waqf* properties. Local elites often use the *waqf* to "endow public goods in perpetuity and to benefit from the prestige and reputational benefits associated with this public demonstration of piety", allowing "public recognition of their legacy to survive for decades, regardless of political power changes" (Fauzia, 2013). However, because most economic entities, including farmland, were not under *waqf* historically, the geographic coverage of *waqf* (in terms of land area) remains more limited than in the Middle East (Jahar, 2006). At the same time, its widespread use for mosques and schools leaves open the possibility for outsized political and ideological influence.

3.3 Islamic Institutions and *Waqf* Transfers in the 1960s

By exempting *waqf* from redistribution in the BAL, the Sukarno government united the interests of large landowners and religious conservatives who were both threatened by the land reform. While landowners feared the confiscation of their property, Islamists feared a coup by forces sympathetic to Communism and the marginalization of rural landowners involved in funding religious institutions. Not surprisingly, landowners took advantage of the BAL exemption by transferring their land to *waqf*. As described in Section 3.1, lands registered under this status would be immune from expropriation, in

addition to conferring reputational benefits upon their founder. As a result, "many Muslim landowners preferred giving up their excess land in the form of wakaf [sic], rather than seeing them attributed to the Peasant Front (BTI)" (Djatnika, 1985), and perhaps the "most formidable obstruction to land reform came from the religious organisations" (Utrecht, 1969).[16] Here, we explain how this happened in practice along with some prominent examples.

First, the legal context discussed in Section 2.2 made it possible for landowners to transfer their surplus land to religious authorities before it could be deemed expropriable. Utrecht (1969) alludes to these "antedated acts of transfer". This meant that prior to coming under scrutiny by redistribution committees, a landowner simply had to designate the surplus (i.e., land owned in excess of the maximum allowable holdings) as *waqf* properties endowed for charitable uses sanctioned by religious law. The most common use would have been to support a local mosque or religious school.

Moreover, this process of endowing land as *waqf* was extremely simple. Under the *Shafi'i* school of Islamic law followed in most of Indonesia, an oral declaration to a local cleric with at least one other person present is sufficient as a formality of endowment: a "*waqf* is directly effective and legally binding if the founder has declared his *waqf* and given it to a signed person, even without any legal documents" (Jahar, 2005, p. 135). With the support of religious authorities, a landowner could then assert alienation of property when confronted with forces agitating for redistribution. This assertion could be readily endorsed by a local Ministry of Religion office, which were authorized as of 1958 (Regulation No. 3) to legalize all *waqf* endowments in their respective subdistricts. Even without formal certification, the sanctification by local clerics would be enough to ascertain the inviolability of the *waqf* lands.

The historical literature provides numerous examples of such land transfers into *waqf*. Castles (1965) recounts an instance in which elites transferred land under threat of expropriation to religious leaders:

> "For some years the school [*Pondok-Moderen pesantren*] has possessed 25 hectares of rice-field, but this has recently been greatly increased by about 240 hectares, which was dedicated [to *waqf*] (*diwakafkan*) by landowners in the Ngawi district who were to lose it under the land reform law. In late 1964 the communist peasant organization B.T.I, was trying to prevent the *Pondok-Moderen* from getting any benefit from the land while the *Pondok-Moderen* was having a struggle to hold on to it. But apparently it is legal to dedicate land in excess of the legal maximum for religious purposes in this way."

This once-modest local *pesantren* has since blossomed into a center of Islamic education with a large network of schools growing out of the original Islamic school at Gontor. Today, its *waqf* board manages nearly 18,000 hectares of land across Indonesia and its leaders routinely engage in politics. Among its alumni are many influential Muslim leaders including Hidayat Nur Wahid, an early leader of the Prosperous Justice Party (*Partai Keadilan Sejahtera* or PKS), one of Indonesia's two major Islamist parties. This example illustrates some of the potential mechanisms linking *waqf* transfers in the 1960s to the entrenchment and growth of Islamism, which we explore in Section 5.

The Gontor case also illustrates the important historical role of *waqf* lands in supporting brick-and-

[16] Djatnika (1985), for example, documents a surge in registered *waqf* properties in the province of East Java during the period when the agrarian reform was announced. In a previous version of this paper (Bazzi et al., 2018), we provide a discussion of the numbers in this study.

mortar Islamic institutions in which economic and religious elites interact. This relationship has long been a feature of Islamic institutions in the Indonesian context, as described in Hefner (2011):

> "Qur'anic schools across Indonesia have always depended on gifts from wealthy landowners and on produce from lands controlled by the school owner. Endowments (*waqf*) to religious institutions are strongly sanctioned in Islamic law, linked as they are to the reproduction of institutions at the heart of religious life. This circulation of wealth from economic to religious elites (themselves sometimes from the ranks of the former) is all part of the way differences of wealth and class are moralized in traditionalist Muslim communities."

Another major network of Islamic schools have their roots in this tradition and also experienced a large institutional shift in the 1960s. K.H. Choer Affandi, a local Islamist leader in Tasikmalaya district in West Java established the *Miftahul Huda pesantren* around the time of the land reform. He received *waqf*-endowed land from numerous individuals in 1962 with the blessing of political elites, including the district mayor (Teguh, 2018). In 1967, he built a second *pesantren* elsewhere in the district after receiving a *waqf* land transfer of 8 ha. Today, many *Miftahul Huda* alumni are key actors in Islamist mobilization campaigns pushing for *sharia* law. They are also well represented among Islamist politicians.

One important caveat is that many mosques and religious schools are not affiliated with the conservative Islamist movement but instead with more moderate Islamic organizations. Below, we explore the hypothesis that Islamists were more resource-constrained than moderates as a result of repression by the Dutch and then the Sukarno regime. Hence, the *waqf* transfers in the 1960s may have had a relatively larger effect on their organizational capacity thereafter. Our results in Section 5 speak to these divergent institutional trajectories.

4 Empirical Framework

This section describes our main data sources and identification strategy.

4.1 Data: Expropriation Intensity, Islamic Institutions, and Islamism

We draw upon a wide array of historical, census, administrative, and survey data. Here, we detail core regressors and outcomes. We introduce other outcomes of interest as they arise in Section 5. Appendix Table A.1 reports summary statistics and data sources, and Appendix B provides more complete details on our data construction.

Land and Demographic Data. Our analysis relies on two historic district-level variables that determined the intensity of expropriation under the land reform: 1960 population density and marginal expropriable landholdings. We reconstructed district-level population density using population figures from the 1961 Population Census and land area figures calculated in ArcGIS, based on the historic district boundaries. There are 202 historic districts in the 1960 Census records, and 200 districts in the 1963 Agricultural Census. After linking with other data sources, detailed below, we are left with 191 his-

toric districts, which are the level at which the policy varies and hence our main source of identifying variation. The average district has 342 people/km^2 across all of Indonesia.

To capture differences in expropriable landholdings, we use district-level tabulations from the 1963 Agricultural Census. The Central Bureau of Statistics (BPS) used this Census to evaluate the land tenure situation ahead of the implementation of the land reform (Huizer, 1972). The Census provides, at the district level, the number of landholdings falling in seven discrete bins under 5 hectares (ha), as well as the total number of holdings above 5 ha. Holdings above 5 ha represent 4% of total holdings.

Our interest lies in *marginal expropriable holdings* (MEH). At the 400 people/km^2 cutoff, these include holdings between 5 and 9 hectares (5–7.5 hectares for irrigated land, and 6–9 hectares for dry land).[17] Holdings below 9 hectares were not expropriable in districts below the 400 cutoff. However, any holdings above 9 hectares would have been confiscated in all districts above the next lowest threshold of population density at 250 people/km^2. It is in this sense that the 5–9 ha holdings are marginal to the 400 cutoff. Analogous marginal bins apply at other cutoffs (see robustness checks in Section 6.2).

Since the exact distribution of holdings above 5 hectares is unobserved in the Census tabulations, we estimate the number of holdings in the marginal bins, following methods popularized in recent work on upper tail income and wealth (e.g., Piketty and Saez, 2003; Saez and Zucman, 2016). In particular, we assume a Pareto distribution over landholdings and estimate the shape parameter separately for each district (see Appendix B for full details). There is growing consensus that the Pareto distribution appropriately describes the distribution of landholdings (e.g., see Allen, 2014 and Bazzi, 2017 for evidence from the Philippines and Indonesia, respectively). To the extent that this approach mis-measures marginal holdings, this should bias our estimates towards zero so long as this measurement error is not systematically correlated with proclivities for Islamism.[18]

Nevertheless, in Appendix A.7, we show that the Pareto assumption is not necessary to generate our core findings. Our results are robust to a bounding exercise where we compute lower and upper bounds on the number of marginal expropriable holdings in each district. As part of this exercise, we show robustness to using *observed* holdings above 5 ha rather than estimated holdings in the 5–9 ha range.

Islamic Institutions. Our data on Islamic institutions comes from several sources. First, we measure the amount and fraction of land under *waqf* in the 2003 Village Potential (*Podes*) administrative census.[19] These data are based on surveying village government leaders combined with official village records. In

[17] We do not observe holdings separately for irrigated land and dry land. We conservatively focus on holdings between 5 and 9 hectares, since all holdings we observe between these bounds were potentially expropriable.

[18] Ideally, we would have data on the distribution of landholdings before the announcement of land reform aims in 1959. While such data is not available, the Pareto estimating procedure will capture the leading sources of cross-sectional variation in large holdings so long as there is not significant misreporting at the cutoffs. We find no indication of pervasive bunching below the 5 hectare threshold in affected districts. We assess this directly by checking for a violation of the monotonicity implication of the power law distribution for landholdings, which implies that the number of landholders with farms of 3–3.99 hectares should exceed the number of landholders with farms of 4–4.99 hectares. Violations of this pattern could point to misreporting of holdings above 5 hectares as just below 5 hectares to avoid expropriation in districts with population density above 400 people/km^2. We see 4 out of 58 districts above the 400 cutoff with more landholdings in 4–4.99 ha than in 3–3.99 ha. This suggests that bunching, if it exists, is limited. Moreover, results are robust to omitting these four districts.

[19] We restrict attention to around 55,000 villages within the borders of Indonesia as of 1960 with data that can be reliably linked to the historic districts from the 1963 Agricultural Census and 1961 Population Census. This excludes the islands of Maluku and Irian Jaya (Papua) as the former has no records in the Agricultural Census, and the latter is not yet part of Indonesia.

2003, 66% of villages have some land under *waqf*, and the average village has 3.4 hectares of *waqf*, with *waqf* parcels covering 6.1% of zoned land.

Second, we measure *waqf*-endowed institutions: Islamic boarding schools (*pesantren*), Islamic day schools (madrasa), and mosques. In *Podes* 2003, we observe mosques and the total number of Islamic schools, and in *Podes* 2008, we observe the number of *pesantren* and madrasa separately. We also use administrative data from the Ministry of Religion that contain more detailed information on the universe of *pesantren* ($N = 25,938$) and mosques ($N = 243,340$), including location and dates of establishment for both, number of students in the former, and amount of *waqf* land in the latter (see Section 5.1).

While *pesantren* and madrasa both provide teachings based on Islam, there are important differences between the two institutions. *Pesantren* are typically boarding schools, drawing students from many villages, and they devote much of their curriculum to the study of Islamic texts. Similar to Christian seminaries, they are geared towards the production of religious scholars (ulama), clerics, and leaders. *Pesantren* were "virtually the only non-state institutions actually functioning at the grassroots level" during the Suharto era (Van Bruinessen, 2008).[20] Madrasa are more akin to public day schools in their pedagogical methods, though they require 2–4 times more religious content in subjects such as Islamic theology and law. While both madrasa and *pesantren* may rely on private sources of funding, the latter have typically been more independent of government oversight in part due to the self-sustaining nature of their (*waqf*-endowed) agricultural operations as well as their ability to opt out of government-mandated curriculum.[21]

Electoral Support for Islamist Parties. We draw on two main data sources to measure electoral outcomes. First, we use the 2003 *Podes*, which records village-level information on the 1999 national legislative election—the first election in the post-Suharto, democratic era. This election was won by the Indonesian Democratic Party of Struggle (PDI-P, center-left and secular) with 33.8% of the vote; Suharto's party, the Party of Functional Groups (Golkar, center-right and secular), finished second with 22.5% of the vote. Our primary focus is on the performance of Islamic and Islamist parties. Among others discussed in Section 5.2, the National Awakening Party (PKB, moderate Islamic) won 12.6% of the vote, and the United Development Party (PPP, Islamist) won 10.7%.[22] Other Islamist parties like the Prosperous Justice Party (PKS) garnered smaller vote shares but become important in subsequent elections. The *Podes* data reveal which party finished first, second, and third in each village but do not indicate the vote shares. This is the only available dataset with voting outcomes below the district level in the 1999 election.

[20] Geertz (1956) describes a common scene during the Suharto era: "The rich hadji [sic], surrounded by a group of satellite landholders and young laborer students, could build up a system of agricultural production (often with home industry attached) which took the form of a kind of small-scale plantation." Geertz (1960) goes on to note that "When a European first sees a traditional *pesantren*, it reminds him almost inevitably of a Catholic monastery."

[21] Pohl (2006) further describes *pesantren* as "providers of private, nonformal (religious) education", which "do not issue state-recognized certificates for these educational activities. They range from local Koran schools, in which students are instructed in the system of Koran recitation, to religious colleges akin to those found in the Middle East. Some have only a few regular students, a single teacher, and perhaps some small agricultural fields, whereas others instruct upward of 3,000 students."

[22] The PPP was the umbrella Islamic party founded in the early 1970s when the repressive Suharto regime forced all Islamic parties into a single ticket. The PKB emerged after the fall of Suharto as an alternative to the longstanding PPP and as a vehicle for organizing votes among those long affiliated with the *Nahdlatul Ulama* movement originating in East Java. Section 5.2 provides more details on these party and organizational distinctions.

Second, we use district-level vote shares from the Electoral Commission, which allow us to track voting behavior beginning in 1955 with the first legislative election after independence.[23] These data cover elections through 2014 and provide a more complete picture of voting patterns in the democratic era but come at the expense of the geographic detail in *Podes*. For both the historical and post-Suharto period, we categorize parties as secular, moderate Islamic, and Islamist using well-established classifications in the political science literature.

Other Measures of Islamism. We consider a range of outcomes capturing the reach of Islamism in local governance, public affairs, and citizens' attitudes. These come from different sources and span several domains: the size of the local religious bureaucracy, *sharia* regulations passed by local governments, Islamic microfinance, Islamic court use, and Islamist vigilante activity; demand for religious politicians and *sharia* law in survey data; and Islamist appeals by legislative candidates. In identification checks, we use data on violent activity perpetrated by Darul Islam, an armed Islamist group that sought to establish an Islamic state in the 1950s. We also examine numerous measures of religious piety and practice in survey data as well as economic outcomes plausibly affected by *waqf* endowments. We describe these variables at length when presenting the results below.

4.2 Identification

To identify the effects of the land reform, we use a difference-in-discontinuity design analogous to Grembi et al. (2016). Our specification leverages both discontinuous variation in the anticipated intensity of the reform and cross-sectional variation in the number of marginal expropriable landholdings (MEH) as defined above. The RD component exploits the discontinuity in the number of MEH to be seized at 400 people/km^2: the maximum allowable size of landholdings fell discontinuously from 9 to 5 hectares at the 400 cutoff. The difference component looks at the prevalence of holdings in this 5–9 ha range before the reform. The difference on top of the discontinuity helps to identify areas where the land reform was binding; districts above 400 people/km^2 would have relatively limited exposure to redistribution if there were few landholdings between 5–9 ha. Our measure of *expropriation intensity* therefore interacts (i) an indicator for districts with a population density greater than 400 people/km^2 and (ii) the number of landholdings between 5–9 ha (MEH). While our baseline specification focuses on the maximum threshold of 400 people/km^2, robustness checks in Section 6.2 explore effects at the other cutoffs (50 and 250) as well as a specification identifying the average effect of expropriation intensity across all three cutoffs.

Our focus on the 400 cutoff is motivated by the historical context described in Section 2.3. The initial government plan was to implement the land reform in two phases. Under Phase I of the reform, redistribution would begin with the most densely populated islands of Java, Bali, and NTB. Here, the 400 cutoff was the most relevant one; only 11 out of 95 districts had a density under 250 people/km^2 and only two under 50 people/km^2. Under Phase II, the reform was to proceed to the sparsely populated Outer

[23] Several districts are missing data for the 1955 elections. We therefore supplement the 1955 national legislative election data with data from the 1957 legislative elections that were held in select districts before being halted by the Sukarno regime. When data is available for 1955 and 1957, we use average vote shares across both elections.

Islands, where only 2 districts had a density over 250 people/km^2, and where publicity about the reform and state capacity for implementing it were also much weaker. By the time implementation was to begin in these regions, the land reform was already under threat and effectively halted after the September 1965 coup attempt. Indeed, by early 1965, only 40% and 5% of expropriable hectares of land had been reallocated in Phase I and Phase II regions, respectively (Department of Agriculture, 1964, 1965).

Our main difference-in-discontinuity estimating equation is as follows:

$$\begin{aligned} y_{ij} \quad = \quad & \alpha + \gamma_0 Above400_j + \gamma_1 MEH_j + \beta(Above400_j \times MEH_j) \\ & + g(\mathbf{density}_j) \times [\delta_0 + \delta_1 Above400_j + \delta_2 MEH_j + \delta_3 (Above400_j \times MEH_j)] \\ & + f(\mathbf{X}_{ij}, Above400_j, MEH_j) + island_j + \varepsilon_{ij}, \end{aligned} \tag{1}$$

where i denotes village and j denotes 1960 district; $Above400$ is a dummy variable for districts above 400 people/km^2; MEH is the number of marginal expropriable landholdings (5–9 ha) at the onset of the land reform; $g(\mathbf{density})$ is a polynomial in population density estimated separately on each side of the 400 people/km^2 cutoff, and fully interacted with MEH; and we include five $island$ fixed effects.[24] The main coefficient of interest is β, the coefficient on *expropriation intensity*, i.e., the interaction of $Above400$ with MEH. We use a third-order polynomial as a baseline but consider other orders for robustness. We also estimate versions of equation (1) including a vector of predetermined or time-invariant controls, $\mathbf{X}_{ij}$, fully interacted with $Above400$ and MEH, $f(\cdot)$. Our baseline specification includes all districts, and in robustness checks, we vary the bandwidth around the 400 cutoff. We cluster standard errors by 1960 district, the level of variation of the land reform.[25]

Illustration of Identification Strategy. Figure 1 illustrates the intuition behind our identification strategy. Graph (a) plots the prevalence of *waqf* land at the district level above and below the 400 people/km^2 cutoff and for two groups of districts based on a binary transformation of MEH: districts with a number of 5–9 ha holdings above the median (black circles) and below the median (gray triangles).[26] We can also illustrate this strategy by using the following four districts as an example. On the left side of the cutoff, Sampang and Malang districts have historical population densities of 396 and 399 people/km^2, respectively. Sampang has relatively few marginal landholdings (72), and Malang has many more (403). In neither district are these holdings expropriable under the land reform. Today *waqf* represent 2.0% and 3.8% of zoned land in Sampang and Malang, respectively. On the right side, two districts close to the cutoff are Klungkung (414 people/km^2) and Bogor (415 people/km^2). Klungkung has many fewer MEH (21) than Bogor (297) before the land reform. These holdings are expropriable in both districts,

[24] These include Java, the Lesser Sunda Island group (Bali, NTB, NTT), Sumatra, Kalimantan, and Sulawesi.

[25] Inference is robust to alternative approaches including the wild cluster bootstrap, spatial HAC (Conley, 1999), and an effective degrees of freedom adjustment (Young, 2016). See Appendix Table A.4.

[26] These figures differ from our actual estimating equation in two ways. First, equation (1) uses the full, continuous variation in 5–9 ha holdings whereas these graphs are based on splitting the full set of 191 districts into those with above and below median 5–9 ha holdings. Second, for presentational purposes, these figures restrict attention to districts with 250–550 people/km^2 whereas our regressions use the full set of districts. As such, these should be seen only as an approximation to the identifying variation in the subsequent regression results. The relatively fewer districts above the median in the figure is due to large holdings (including 5–9 ha) being more prevalent in less densely population districts of the Outer Islands, nearly all of which fall below 250 people/km^2.

and the gap in *waqf* prevalence is 2.3% (Klungkung) versus 9.2% (Bogor). Our estimate of β in equation (1) approximates the difference-in-differences across the 400 people/km^2 cutoff (i.e., (9.2-2.3) - (3.8-2.0)). The remaining graphs reveal similar patterns for a few other important contemporary outcomes: (b) *pesantren*, (c) Islamist vote share, and (d) *Sharia* regulations.

Figure 1 also illustrates why we do not use a simple RD around the 400 people/km^2 cutoff. There is no discontinuous jump in *waqf* when looking across the entire sample, because districts with few MEH faced no substantial discontinuity in the threat of expropriation at this cutoff. For these districts, we should not observe substantial changes in *waqf* prevalence and lasting effects on Islamism. Instead, we focus on the interaction between being above the cutoff and the number of MEH, which captures a district's differential response to the reform as a function of the policy rule and the pre-existing number of exposed landholders. The only holdings that would have been expropriated above 400 people/km^2 but not below are holdings between 5–9 ha. The difference-in-discontinuity estimates the differential response of landowners whose holdings would have been expropriated above the cutoff but not below.

Identification Checks. Several results support the main identifying assumption, namely that potential outcomes be continuous at the 400 people/km^2 threshold and parallel across the distribution of MEH. We discuss key validation tests here and a complete set of robustness checks in Section 6.2. First, we find no evidence of manipulation of the running variable, population density in 1960, based on the McCrary (2008) test (Appendix Figure A.4). Second, the number of 5–9 ha landholdings, MEH, is continuous across the 400 cutoff (Appendix Figure A.3), which additionally provides evidence against misreporting of expropriable land in the 1963 Agricultural Census (see footnote 18).

Importantly, there are no systematic difference-in-discontinuities for leading confounders (Appendix Table A.2). These include proxies for the prevalence and strength of Islamic institutions before the land reform: the number of mosques and *pesantren*, Islamist vote share in the 1950s, violent events associated with the Darul Islam rebellion in the 1950s, ethnic Arab population in the 1930s, and distance to the nearest of nine shrines at the grave sites of "saints" that brought Islam to Indonesia in the 1400s and 1500s.[27] In Section 5.1, we discuss additional evidence consistent with a lack of pre-trends in *waqf* endowments before the 1960s (see Figure 2). Appendix Table A.2 further shows there is no significant relationship between expropriation intensity and the Communist vote share in the 1950s. This is reassuring as Communist-affiliated organizations played a strong role in agitating for local redistribution. Finally, there is no correlation with local rainfall shocks in the years leading up to (1955–59) and during the land reform (1960–65). This helps rule out endogenous policy design aimed at alleviating prior or (unanticipated) future drought (e.g., Mortimer, 2006, p. 206 describes the effects of a late 1963 drought on local redistribution effort). Together, these checks bolster the case that equation (1) identifies causal reduced form effects of *expropriation intensity* prescribed by the BAL.

[27] Two out of 26 variables in Appendix Table A.2 exhibit significant difference-in-discontinuities, which is to be expected as a result of chance. To be sure, we demonstrate robustness to controlling for these covariates in Appendix Tables A.8–A.10.

4.3 Isolating the Long-Term Effects of *Waqf*

While the reduced form in equation (1) is our preferred specification, we also ask how *waqf* holdings affect our outcomes of interest. We estimate the following specification via ordinary least squares (OLS) and instrumental variables (IV):

$$\begin{aligned} y_{ij} \quad = \quad & \alpha + \gamma_0 Above400_j + \gamma_1 MEH_j + \beta^w Waqf_{ij} \\ & + g(\mathbf{density}_j) \times [\delta_0 + \delta_1 Above400_j + \delta_2 MEH_j + \delta_3 (Above400_j \times MEH_j)] \\ & + f(\mathbf{X}_{ij}, Above400_j, MEH_j) + island_j + \varepsilon_{ij}, \end{aligned} \tag{2}$$

where $Waqf_{ij}$ denotes hectares of *waqf* in the village in 2003. In the IV specification, we use the difference-in-discontinuity term from equation (1), $Above400_j \times MEH_j$, as an instrument for $Waqf_{ij}$. Under the assumption that expropriation intensity only affects contemporary outcomes via its effect on *waqf*, the IV estimate of β^w identifies the causal effect of *waqf* land on downstream outcomes.

The IV estimates isolate the effects of *waqf* land endowed in the 1960s as a result of landholders' attempts to escape expropriation. It seems plausible that this land would have been more productive than the typical land endowed as *waqf*. As a result, the institutions benefitting from such land might gain considerably more than they would from the more marginal *waqf* lands endowed in normal times. This is important for understanding the OLS and IV effect sizes in Section 5.5. Of course, as with any IV, the exclusion restriction is subject to caveats and hence why we prioritize the reduced form equation (1) in most results that follow.

5 Results: Land Reform, Institutions, and Islamism

This section presents our core empirical results in five steps. First, we link the land reform to increased prevalence of *waqf* and Islamic institutions. Second, we identify downstream effects on Islamist politics. Third, we find a deeper role for Islam in public affairs. Fourth, we distinguish both demand- and supply-side factors shaping the advance of Islamism. Finally, we estimate adverse effects on agricultural development that seem to be driven by *waqf* lands. We present core robustness checks along the way but defer alternative explanations and further robustness checks to the following section.

5.1 Effects on *Waqf* and Endowed Institutions

Table 1 estimates the effect of the land reform on contemporary *waqf* holdings and the prevalence of Islamic institutions endowed as such. We present the estimated effect of expropriation intensity, i.e., the interaction of $Above400$ and MEH in equation (1); all other terms in that equation are included in the regression but their output suppressed. We express MEH in 100s so that the coefficient can be interpreted as the differential effect of having 100 additional marginal expropriable holdings. For reference, MEH (in 100s) has mean 3.9 and standard deviation 5.8. All regressions are run at the village level, which is the level at which *waqf* and *waqf*-endowed institutions are observed.

Land Under *Waqf*. Columns 1–3 of Table 1 consider *waqf* land in hectares (hyperbolic-sine transformed), the fraction of total land under *waqf*, and the fraction of zoned land under *waqf*. Across columns, we find that villages in districts facing greater expropriation intensity have significantly more land under *waqf*. On average, each additional 100 MEH is associated with 20% more ha of *waqf* land (column 1) or nearly 50% more as a fraction of zoned land (column 3). Consistent with the historical record, these estimates suggest that in anticipation of the land reform, exposed landowners sought to protect their land from expropriation by registering it under *waqf* under the authority of local religious authorities. Given the inalienable nature of the *waqf*, these endowments persisted until the modern period.

Mosques and Islamic Schools. In columns 4-6 of Table 1, we report effects of the land reform on mosques, *pesantren* (Islamic boarding schools), and madrasa (Islamic non-boarding schools) at the village level in 2008.[28] Since *waqf* in Indonesia are mainly used to support houses of worship and educational institutions, we should expect expropriation intensity under the BAL to also increase the prevalence of these institutions. We find that this is indeed the case. Each additional 100 MEH is associated with 3 more mosques relative to the mean of 3.9, 0.5 more *pesantren* relative to the mean of 0.5, and 1 more madrasa relative to the mean of 0.9.

While both types of religious school are instrumental in shaping Islamic knowledge and identity, *pesantren* have played a particularly important role in advancing the cause of Islamism in Indonesia. Most Islamist leaders were educated in *pesantren* (see Section 3.3 for examples). *Pesantren* students often retain their social networks when entering university, where Islamic groups played a central role in sustaining Islamist organizational capital amidst the repression during the Suharto era (see Machmudi, 2008). *Pesantren* also engage in community-based activism, influencing those outside the immediate family networks in these schools. Hamayotsu (2011), for example, details the vital role of Islamic schools in mobilizing support for the hardline Prosperous Justice Party. Finally, some *pesantren* maintain their own militias, which are used for agitation and mobilization around elections (Buehler, 2016). In Sections 5.2–5.4, we revisit these mechanisms as they help clarify some of the later outcomes of the *waqf* transfers.

Robustness Checks. In Appendix Table A.8, we show that the results in Table 1 are robust to a range of alternative specifications and controls. We run different versions of equation (1) including baseline agricultural controls from the 1963 Agricultural Census (number of males, females, and farms, total irrigated land area, and total dry land area), village-level geographic controls (altitude, beach location, distance to the nearest sub-district capital and the nearest district capital), baseline political controls (Islamist and Communist vote shares in the 1950s and violent activity by the Darul Islam rebellion before the reform), baseline Islamic organizations (the number of mosques and *pesantren* in the district by 1920), and province fixed effects. These controls help rule out confounding factors that predate the reform. All controls are fully interacted with the $Above400$ dummy and the number of MEH. Reassuringly, our key findings are not sensitive to the inclusion of these controls.

[28] The sample size falls relative to columns 1–3 due to an inability to link some villages from later rounds of *Podes* to our main data, which includes other village-level variables used in robustness checks. We find similar insights using data on mosques and Islamic schools in *Podes* 2003, but this round does not distinguish *pesantren* from madrasa.

We also implement a bounding exercise around the number of marginal expropriable holdings in each district, to ensure that our results are not driven by the assumption that landholdings are Pareto-distributed. As detailed in Appendix A.7, this exercise shows that our core results are robust to using all holdings above 5 ha (which are observed) instead of holdings between 5–9 hectares (which are estimated) in our main specification.[29]

Appendix Table A.8 reports two other validation checks. First, our core results are robust to excluding the islands of Sulawesi and Sumatra. This helps ensure that our results are driven by islands where the land reform was most intensely implemented before its demise. Second, we report a simple placebo check that looks for a difference-in-discontinuity at 500 people/km^2, which was not a relevant cutoff in the land reform. We interact a dummy for districts above 500 people/km^2 (instead of 400 in our main specification) with the number of 5–9 ha holdings. As expected, this interaction is not significantly associated with contemporary *waqf* lands or *waqf*-endowed institutions.

Timing of *Waqf* Endowments. Figure 2 and Appendix Table A.3 provide further evidence that the land reform caused an increase in the scale of new *waqf* endowments. We use data from the Indonesian Ministry of Religious Affairs containing the universe of mosques and *pesantren* and create a district-by-year dataset from 1920 to 2009.[30] We report time-varying estimates of β from equation (1) fully interacted with decade fixed effects; each coefficient can be interpreted as the average annual effect of expropriation intensity in the given decade. Panel (a) of Figure 2 shows estimates for *waqf* land provided to newly established mosques, which is the only time-varying measure of *waqf* land spanning the study period. Panel (b) reports the same set of coefficients, but looks at student enrollment in newly established *pesantren*. Under reasonable assumptions, *pesantren* enrollment could be proportional to the size of its *waqf* properties, which are unfortunately not recorded in the data.

These graphs offer three important lessons. First, prior to the land reform, there are no systematic pre-trends in *waqf* endowments, as seen in the flat difference-in-discontinuity estimate (β) around zero from 1920 to 1959. Note that this is not due to a lack of institutional growth during this period (see Appendix Figure A.1). Second, beginning in the 1960s, β exhibits a significant jump as *waqf* endowments begin to grow relatively faster in districts with greater expropriation intensity. In Appendix Table A.3, we compare estimates of β across the pre- and post-reform period and find a statistically significant increase between the 1950s and 1960s.

Third, the increase in *waqf* endowments seems to continue well after the land reform. To explain this dynamic trend, we conjecture four interrelated mechanisms. First, new mosques and *pesantren* created in the 1960s helped mobilize donations from worshippers, allowing these institutions to expand.

[29] In addition to providing an upper bound on marginal expropriable holdings in each district, holdings above 5 ha also capture an additional, intensive margin effect of expropriation intensity for landowners already exposed below the 400 people/km^2 cutoff. Those with holdings above 9 ha would have had to give away land in districts above and below 400 people/km^2 but would have had to abdicate an additional 4 ha of land above the 400 cutoff.

[30] Both data have missing establishment dates: 5,689 out of 25,938 *pesantren* and 4,689 out of 243,340 mosques. However, neither are systematic with respect to expropriation intensity. Although these data only capture surviving institutions, there are two reasons why this should not introduce biases (in our favor). First, differential survival between high and low expropriation intensity districts should work against finding the flat pre-trends that we do in Figure 2. Second, if there is differential survival after 1960 (and this explains the patterns in Figure 2), then this is consistent with our argument, namely that Islamic institutions are more resilient and permanent in districts with greater expropriation intensity in the 1960s.

Second, land donations also allowed existing institutions to generate additional agricultural revenue, multiplying opportunities for subsequent expansion. Third, individuals educated in *pesantren* created in the 1960s may have demanded more Islamic education for their children, leading to greater demand for religious educational infrastructure in their district. Fourth, new mosques and *pesantren* may have induced a competition for social prestige, with members of the local elite seeking to outbid each other in the provision of religious goods to the community. While we cannot adjudicate among these, all four seem plausible and are borne out in the qualitative literature on Islamic institutions in Indonesia.

Pesantren alumni are an important contributor to each of these four channels. As boarding schools, *pesantren* draw students from many different villages. After graduating, many return home to take up leadership positions in mosques and religious schools. Some even start *pesantren* of their own, affiliating with the original institution where they were educated.[31] This geographic diffusion process engenders far-reaching alumni networks, which are one channel through which a small amount of *waqf* land in the 1960s can have large and lasting sociopolitical consequences in the district at large.

Overall, Figure 2 suggests that the land reform led to a resource windfall for Islamic institutions, putting heavily impacted districts on a diverging institutional trajectory. Institutions borne out of this historical episode shaped the supply of and the demand for similar institutions in subsequent decades. In the next sections, we explore the lasting effects of these diverging institutional paths, documenting greater influence of organized religion on preferences, politics, and the local organization of society.

5.2 Effects on Electoral Support for Islamism

We show in Table 2 that districts facing greater expropriation intensity in the 1960s provide greater electoral support for Islamist parties in the democratic era. The 1999 election was especially important since it was the first under democratic rule and hence offered an early indication of underlying preferences long dormant in the Suharto era. However, being the first election, it was also subject to uncertainty and limited information about the nature and credibility of party platforms. Thus, we also examine whether effects persist across the 2004, 2009, and 2014 parliamentary elections.

Party Classification. We look at measures of electoral support for three groups of political parties: (a) Islamist, (b) moderate Islamic, and (c) secular parties. Panel (a) of Table 2 examines outcomes for three hardline Islamist parties that advocate for a central role of Islam in government: the United Development Party (*Partai Persatuan Pembangunan*) or PPP, the Prosperous Justice Party (*Partai Keadilan Sejahtera*) or PKS, and the Crescent Star Party (*Partai Bulan Bintang*) or PBB. All three parties demanded Islamic law and rejected *Pancasila*, the national secular ideology of the state. While the Suharto regime required all parties to embrace *Pancasila*, with democratization, parties could for the first time choose whether or not to do so. Panel (b) examines outcomes for two moderate Islamic parties with no interest in pushing for an Islamic state. The National Mandate Party (*Partai Amanat Nasional*) or PAN and the National Awakening Party (*Partai Kebangkitan Bangsa*) or PKB both adopted *Pancasila* in 1999. Panel (c) looks

[31] Both of the *pesantren* discussed in Section 3.3 fit this characterization: "When some of its [Gontor's] graduates returned to their home towns or migrated to new places, they also founded *pesantren* or Islamic schools" (Isbah, 2016). "In fact, almost every kelurahan or kampong [i.e., village] [in Tasikmalaya district] has an alumni from Miftahul Huda" (Pamungkas, 2018).

at electoral outcomes for all other parties. These include both the longstanding secular parties—the Indonesian Democratic Party of Struggle (*Partai Demokrasi Indonesia Perjuangan*) or PDI-P and Golkar (*Partai Golongan Karya*)—as well as newer ones such as the Democrat Party and the Great Indonesia Movement Party (*Partai Gerakan Indonesia Raya*) or Gerindra.

There are two fundamental distinctions between the Islamist and moderate Islamic parties that are crucial for understanding the results in Table 2. First, Islamist politicians routinely agitate for *sharia* law while PKB and PAN explicitly reject such efforts.[32] Second, moderate parties are closely affiliated with the two largest and longstanding Muslim non-governmental organizations in Indonesia (*Muhammadiyah* for PAN and *Nahdlatul Ulama* or NU for PKB).[33] These organizations have long had considerable financial resources at their disposal. As a result, the resource windfall for Islamic institutions in the 1960s may have been less consequential for moderate Islamic political leaders than for long-repressed Islamist ones.

Islamist Party Support, 1999–2014. In column 1 of Table 2, the dependent variable is an indicator for whether the given party family was represented among the top 3 parties in the village in 1999. Expropriation intensity increased long-term electoral support for Islamist parties (panel a). As we discuss below, there is some indication that the Islamist advantage in affected districts comes at the expense of moderate Islamic parties as well as secular ones (panels b and c). Column 2 bears this out for 1999. Finally, column 3 shows that this holds across all elections from 1999 to 2014. For each additional 100 MEH, Islamist parties gained nearly 4.4 percentage points relative to a mean vote share of 15.4%.

Importantly, the effects of the land reform on Islamist vote shares from 1999 onward are significantly different from the pre-reform period. In particular, we can reject that the standardized effect size in column 3 (0.643) is the same as the effect size (0.109) for Islamist parties in the 1950s elections (p-value of 0.003). This suggests that the effect on Islamist vote shares marks a shift in political preferences and not merely a continuation of pre-reform regional sorting across party lines.[34]

In Appendix Table A.9, we report the same set of robustness checks as those implemented earlier for the outcomes in Table 1 (see Section 5.1 for a detailed description). We focus on voting for Islamist parties (PPP, PKS, and PBB) for these checks. The point estimates and standard errors increase in some specifications but decrease in others. Overall, though, the key takeaways remain unchanged.

The Islamist advantage in affected districts may come from capturing votes that would otherwise go to moderate Islamic parties. In the qualitative literature, Hamayotsu (2011) among others, argues that increasing support for PKS over the first few democratic elections likely came at the expense of support for PKB, which increasingly found itself competing locally with PKS-affiliated *pesantren*. Appendix Table

[32] In 2002, for example, Hamzah Haz, former leader of PPP and Vice President of Indonesia from 2001–2004 led a push with Islamist legislators to revive the so-called "Jakarta Charter", a proposed seven-word preamble to the Constitution obliging Muslims to follow Islamic law, which came to embody the fight over *Pancasila* versus Islam during the early days of independence. PKB and PAN legislators joined secular ones in thwarting this effort.

[33] Both *Muhammadiyah* and NU also engage in politics. For example, in 2007, NU leaders issued a *fatwa* warning Indonesian Muslims against calls for an Islamic state and urging against support for local *sharia* regulations being "propagated by Islamist organizations through their mosque-based activism" (Zuhri, 2013).

[34] The Islamist parties in the 1950s include Masyumi, NU, Perti and PSII (see Appendix B). At the time, all four parties advocated for an Islamic state based on *sharia* law, though NU would subsequently moderate to accommodate the crackdown on Islamic parties first by Sukarno and later by Suharto. Omitting NU from the group of Islamist parties in the 1950s, we still find a significant difference with the effect size in column 3 of Table 2 (p-value of 0.031).

A.7 provides stronger evidence on this margin of substitution using individual-level survey data on voting in the 2004 election. This is consistent with the institutional shock of the land reform having a stronger effect on Islamist party capacity as noted above. If moderates and hardliners compete for votes in a standard Hotelling framework (with voters ordered on a line from most religious to most secular), then the *waqf* transfers may have enabled hardliners to outbid moderates within the segment of the voting population that is more inclined to vote Islamic.

Together, these results suggest that an important legacy of the land reform was to shift the population towards Islamist parties. This initially took the form of support for the PPP and over time shifted to PKS and PBB (see Appendix Tables A.5 and A.6). The sustained support for Islamist parties may be due in part to mobilization through social networks affiliated with *pesantren* and mosques. Section 5.4 provides empirical evidence in support of this mechanism, which resonates with the qualitative literature on religious politics in Indonesia. For example, Buehler (2016) provides a compelling account of how Islamist activists—based in *pesantren* and mosque-based networks—pushed local governments to implement *sharia*-inspired laws, an outcome we explore below. Moreover, conservative institutions endowed as a result of the land reform may have shaped political beliefs as well as the supply of political leaders. We take a closer look at these mechanisms in the following sections.

5.3 Islamist Capture of Local Governance

In Table 3, we explore effects of expropriation intensity on religious influence in local governance. Do *waqf* assets and success at the polls allow Islamists to exert greater control over public affairs? Here we examine the reduced-form effects of the land reform on outcomes capturing linkages between Islam, the state, and the local economy. Using novel administrative and survey data, we look at the size of the religious bureaucracy in government, the adoption of *sharia* regulations and Islamic microfinance, judicial activity by *sharia* courts, and the presence of Islamist vigilantes. All outcomes in Table 3 are standardized, and we report the sample mean of each variable in Table A.1.

Explaining regional variation in these outcomes is important for three reasons. First, these measures reflect the extent of Islamist influence on the state, which has been a recurring point of tension and conflict since independence. Second, these measures are informative about influence beyond the ballot box. After decades of suppression under authoritarian rule, Islamist parties faced an uphill battle in developing the capacity to win elections in the democratic era. Yet, as detailed below, decentralization has allowed Islamists to influence politics and society through other means. Third, these regional policy victories for the Islamist movement have the potential to influence national politics as Islamist politicians command increasingly pivotal voting blocs that ensure their role in coalition governments. Since democratization, newly elected presidents, all from secular parties, have typically appointed one or more Islamist politicians to cabinet-level positions, where they have considerable scope for affecting the orientation of certain ministries or aspects of governance.[35]

[35] For example, Tifatul Sembiring, chairman of PKS, was appointed Minister of Communication and Information in 2009 and proceeded to push for censorship of internet sites deemed antithetical to Islam. Other examples include (i) the ascendence of Hamzah Haz, noted earlier, to the vice presidency in 2001, (ii) the awarding of several cabinet positions to PPP leaders in 2004, (iii) the election of PKS leader Hidayat Nur Wahid as Speaker of Parliament, also in 2004.

Religious Bureaucracy. The first outcome we consider in column 1 of Table 3 is the number of bureaucrats serving in the local Ministry of Religious Affairs (*Kemenag*) in 2018. These are not high-level bureaucrats allocated by the central government but rather employees appointed at the discretion of the district parliament and mayor and include, among others, Islamic court officials, *zakat* administrators, and public madrasa instructors. We estimate a positive and significant effect of expropriation intensity: 100 additional MEH are associated with a religious bureaucracy that is larger by 0.6 standard deviations (SD). In other words, a larger share of local government resources is dedicated to the management of religious affairs.[36]

This is an important result given the historical role of the Ministry in facilitating the expansion of mosques and madrasas (Hefner, 1993). According to Salim (2008), the Ministry "had transformed itself into an official agent of Islamization" during the authoritarian era. With decentralization, district-level *Kemenag* and their subdistrict branches have been at the forefront of efforts to advance Islamic institutions into new domains of public life.

***Sharia* Regulations.** In column 2 of Table 3, we find sizable positive effects of expropriation intensity on *sharia*-inspired regulations adopted between 1998 and 2013. One hundred additional MEH leads to a 0.6 SD increase in regulations—approximately doubling such regulations off a mean of 1.7. The data on *sharia* regulations, compiled by Buehler (2016, 399 in total spanning 176 contemporary districts), include both laws adopted by local parliaments and decrees adopted by district mayors (*bupatis*). Topically, they cover four domains: (i) vice (e.g., alcohol bans), (ii) Islamic dress (e.g., mandatory veil for women), (iii) mandatory Islamic study and practice, and (iv) payment of *zakat*. Technically, religious regulations are the sole purview of the central government. Before 1998, there are no such regulations on record according to Ministry of Home Affairs data on regional legislation. However, with democracy and decentralization, the center has done little to stop such legislation, effectively allowing *sharia* regulations to flourish.

Notably, many of these regulations were supported by secular parties and leaders beholden to the political clout of the Islamist movement. Consider an example from Tasikmalaya district. In 2001, local activists effectively lobbied for the adoption of Regulation No. 13/2001 on "Restoring Peace and Order Based on Moral Teachings, Religion, Ethics, and Local Cultural Values." This sweeping regulation facilitated several policy changes, including a Qur'an reading skills requirement for entry into public primary schools (Buehler, 2016, pp. 147-8). Another interesting example comes from Maros district in South Sulawesi, where an incumbent mayor from the secular Golkar Party had close ties to a local *pesantren* network (*Darul Istiqamah*) and implemented a flurry of *sharia* regulations in the lead up to an election, including dress codes for Muslims and local civil servants as well as requirements to pray and give *zakat* (Buehler, 2016, pp. 166-7). While anecdotes abound, a common theme is the central role of mosques and religious schools in coordinating the Islamist movement.

Islamic Finance. In Indonesia as in many Muslim societies, Islamic precepts influence the local economy through increased usage of Islamic finance, "a class of financial transactions that are ostensibly free

[36]To ensure that these results are driven by local discretion, we examine only those "structural" bureaucrats appointed by the central government. As expected, doing so yields a small and insignificant effect of expropriation intensity.

of interest and compatible with Islamic teachings" (Kuran, 2018). There is a debate about the economic significance of this development. Nonetheless, the take-up of products associated with Islamic finance signals a strong adherence to Islamic values and teachings, with the potential to influence economic and financial decision-making. We look at a particular dimension of Islamic finance in column 3 of Table 3. The dependent variable here is the share of villages in the district operating Islamic microfinance cooperatives known as *Baitul Maal wat Tamwil* or BMT. These institutions operate outside the formal financial system and offer Islamic microfinance products compatible with *sharia* law. We find a positive effect of expropriation intensity on the prevalence of BMT, although it is not statistically significant at conventional levels (some robustness checks in Appendix Table A.10 indicate more precise estimates).

Islamic Courts. The next columns of Table 3 look at the activity of Islamic courts.[37] While a few of these courts go back to Dutch Rule in the 1800s, a 1989 Religious Judicature Act called for the creation of Islamic courts in every district, granting them purview over a range of issues (Cammack and Feener, 2012). In column 4, we find a positive and significant effect on the volume of cases related to *waqf*. Districts targeted for expropriation under the BAL have more land under *waqf* (Table 1) and more *waqf*-related cases adjudicated by Islamic courts. This result is worth noting in the context of a dual legal system where public and religious courts coexist and oftentimes compete. The use of an institution that falls outside the secular legal framework creates demand for its own adjudication and dispute settlement mechanism, beyond the purview of government courts.

We then consider the two most common types of cases adjudicated by Islamic law: inheritance cases (column 5) and marital cases (column 6), which include polygamy, divorce, and child marriage. Greater expropriation intensity leads to a greater volume of inheritance cases, while the effect on marriage cases is positive but imprecise. Due to lack of data on secular courts, it is not possible to measure substitution effects across the two types of legal systems for each type of case. Nonetheless, the effects we find in columns 4–6 of Table 3 are consistent with citizens demanding more dispute settlement by Islamic courts in areas endowed with more Islamic institutions as a result of the land reform. The 1989 Act solidified the dual legal system and allowed the institutional shock of the 1960s to translate into a greater prevalence of judicial institutions associated with religion. Islamists agitate for greater use of these courts, and the local branches of the Ministry of Religion (examined earlier) played an important role in getting these courts off the ground in the 1990s.

Islamist Vigilantes. The last two columns of Table 3 explore violence perpetrated by a prominent Islamist vigilante group called the Islamic Defenders Front (*Front Pembela Islam*) or FPI. Established in 1998, the FPI acts as a morality police, targeting social activities deemed incompatible with Islam (e.g., selling alcohol, remaining open during Ramadan). We find positive effects of expropriation intensity on FPI-related incidents and casualties in columns 7 and 8, respectively, as reported by the National

[37] The data span 1.2 million cases with varying coverage from 2007 to 2019 across districts. The outcome here includes all cases reported for each district, but results are similar when adjusting to per annum rates. The sample size in these specifications falls to 80 districts, which are the only 1960 districts for which administrative data on Islamic courts are publicly available (see Appendix B). However, expropriation intensity does not predict missing-ness. Regressing a dummy for any available Islamic courts data yields a coefficient of -0.090 (0.160).

Violence Monitoring System.[38] This could be consistent with a greater demand for moral policing or a weaker response by the secular state to prevent violence by Islamist vigilantes. In many places, FPI has strong roots in local *pesantren* networks, including *Miftahul Huda* mentioned in Section 3.3 (its alumni are key FPI members in Ciamis and Tasikmalaya districts; see Pamungkas, 2018). The organization sees its efforts as complementary to those of Islamist parties in hastening the implementation of *Sharia*-compliant policies. Consistent with the other findings in Table 3, this is one of the several ways in which affected districts experience a deeper reach of Islam into society and public affairs.

In Table A.10, we report the same set of robustness checks as for prior outcomes. Despite limited power for some specifications with reduced district coverage, the takeaways are largely consistent with the baseline results.

5.4 The Demand- and Supply-Side of Religious Politics

The results thus far suggest that the land reform may have changed both the demand for and supply of Islamist politics. This section sheds deeper light on these two forces and reveals that the effects are not due to a change in religiosity or piety per se. Rather, the institutional shock led to a shift in beliefs about the role of religion in politics and greater entry of religious candidates into politics.

Demand for Religious Politics. In panel (a) of Table 4, we provide direct evidence on voter preferences in line with Islamists' success at the polls. We measure these preferences using survey questions on the importance of a candidate's religion and religiosity in influencing voting decisions, and self-reported demand for *sharia* law. We first report estimates for two different variables from the Indonesian Family Life Survey (IFLS) in 2007 and 2014: whether respondents say a political candidate's religion makes it very likely to vote for him/her (column 1), and whether a candidate's religiosity makes it very likely to vote for him/her (column 2). We find large effects of expropriation intensity on both outcomes. We also report positive effects on two similar outcomes from a different survey conducted by Pepinsky et al. (2018) in 2008:[39] whether respondents deem the religion (column 3) and the religiosity (column 4) of the President of Indonesia very important. In columns 5–6, we examine two measures of support for the adoption of *sharia* law: an index of support for specific dimensions of *sharia*[40] and stated support for the adoption of *sharia* law broadly defined. Expropriation intensity has positive effects on both outcomes. Together, these results substantiate the greater demand for religious politics among residents of districts facing greater expropriation intensity in the 1960s.

Supply of Religious Politicians. Along with these demand-side differences, we also identify complementary supply-side changes. Mosques and religious schools borne out of the *waqf* endowments during

[38] The underlying event-based data come from hundreds of media sources (see Appendix B for details). However, these data do not cover all of Indonesia and hence the reduced sample size of 114 districts. Reassuringly, the coverage is unrelated to expropriation intensity, which has a coefficient of 0.051 (0.139) in a regression testing for systematic missing-ness.

[39] Neither the IFLS nor Pepinsky et al. (2018) survey cover all districts in our study. However, the coverage is not systematically correlated with expropriation intensity.

[40] We take a simple average of binary responses indicating very strong support for corporal punishments for: individuals found guilty of robbery, prohibiting interest, mandatory wearing of the *hijab*, polygamy, stoning individuals found guilty of adultery, and the death penalty for apostasy.

the land reform surely went on to influence multiple generations of Islamic leaders, some of whom may have been inclined to enter local politics. Panel (b) of Table 4 sheds light on this channel using original data on legislator profiles in 2019.[41] We consider the number of candidates mentioning Islam- and *sharia*-related terms in their campaign platform (column 7), candidates indicating in their listed name that they accomplished the *Hajj* pilgrimage to Mecca (column 8), and Islamic scholars running as candidates (column 9).[42] We find large, positive effects on these outcomes. For example, an additional 100 MEH roughly doubles the number of candidates campaigning on religious themes. Moreover, this result holds when looking solely at candidates for Islamist parties, but not when looking at those representing moderate Islamic parties (which do not support government-mandated *sharia* law). In other words, Islamist candidates amplify their religious messaging in districts most exposed to the land reform.

We go further in columns 10–12 to establish that some of the increase in religiously-motivated candidacies can be directly linked to mobilization within schools. Columns 10 and 11 show that expropriation intensity is associated with greater entry of legislative candidates listing teacher and student, respectively, as their primary occupation. These teacher and student candidates are also more likely to have Islamist campaign platforms (column 12). While we cannot trace these candidates to specific educational institutions, these results are consistent with greater (religious) politicization of the educational sector in districts facing greater expropriation intensity in the 1960s.

Of course, whether these results purely isolate supply or an equilibrium response to demand is impossible to tell. What they do provide is evidence that the shock to Islamic institutions led to persistent changes in the religious credentials and predisposition of future politicians. To the extent that leaders matter (Jones and Olken, 2005), this is another important channel by which a small shock to *waqf* endowments in the 1960s might exert a lasting influence on politics and society.

Political Preferences vs. Piety. Expropriation intensity had strong effects on beliefs about the role of Islam in public life, but, in Table 5, we show that this does not seem to operate through a change in religiosity or intensity of religious practice. The ensuing results highlight an important distinction between political and non-political religious beliefs and preferences. We find null effects on the following outcomes from the IFLS: a dummy for being a Muslim (column 1),[43] self-reported religiosity (column 2), and relative trust towards co-Muslims and non-Muslims (column 3). From the Pepinsky et al. (2018) data, we look at individuals who self-report as Muslim (column 4), pray 5 times a day (column 5), fast during Ramadan (column 6), read the Qur'an (column 7), always attend Friday prayer (column 8), recite non-mandatory Sunnah prayers (column 9), are part of a prayer group (column 10), and pay *zakat* (column 11). Column 12 pools all practices in columns 5–11 into a single index. Across columns, we fail to detect systematic effects of expropriation intensity on religious piety and practice.

While this may seem counterintuitive, it is consistent with the observation that religious voters often have little appetite for organized religion to play a greater role in government. In fact, such voters regularly lend their support to explicitly non-religious politicians in settings as diverse as Brazil, Italy,

[41] Thanks to Nicholas Kuipers for scraping these data from the Indonesian Electoral Commission: http://www.kpu.go.id/.
[42] The outcome in column 1 of panel (b) is based on a search for the following terms: *umma*, *dawah*, Muslim, Islam, *sharia*, jihad.
[43] Subsequent columns are restricted to Muslims respondents. We find similar null results for the Muslim share of the village population based on the complete-count 2000 Population Census: -0.015 (0.028).

the Philippines, or the United States—a point emphasized in the recent literature on populism (Müller, 2016). Our findings suggest that religiosity and religious political preferences may react to different underlying triggers. We provide further evidence in Appendix Table A.7, which examines individual-level votes from the Pepinsky et al. (2018) survey. To be sure, more devout Muslims—proxied by the piety index in column 12 of Table 5—are more likely to vote for religious parties than for secular parties. Within the Muslim bloc, pious voters are equally likely to support Islamist and moderate Islamic parties. However, Islamists gain at the expense of moderate Islamic parties in districts with greater expropriation intensity, and this substitution effect is unchanged when controlling for personal piety.

Overall, these results imply that the entrenchment of Islamism is not fueled by greater religiosity. This is an important finding, especially given that under the authoritarian rule of Suharto, the government aimed to promote Islamic culture and piety while repressing Islamic politics. With political opening in the late 1990s came an opportunity to institutionalize the Islamist fervor that had been nurtured in the conservative institutions borne out of the *waqf* transfers during the 1960s.

5.5 Political and Economic Effects of the *Waqf*

Thus far, we have assumed that the reduced-form effects of expropriation intensity on religious politics can be attributed to greater prevalence of *waqf* lands inherited from the 1960s. We probe this assumption in Tables 6 and 7, which regress political and economic outcomes on the prevalence of *waqf*. Both tables report the coefficient of interest from equation (2) estimated via OLS and IV. The OLS specification does not have a causal interpretation but estimates a conditional correlation between *waqf* prevalence and outcomes examined in Tables 1-3. In the IV estimation, the difference-in-discontinuity term ($Above400 \times MEH$) is used as an instrument for land under *waqf*. With first-stage F-statistics in the 4–6 range, we report the p-value for a weak-instrument robust test that the coefficient on *waqf* is different from zero.

Political Outcomes. Table 6 examines three sets of outcomes: *waqf*-endowed institutions; electoral support for Islamist parties; and the role of Islam in public affairs. As expected, there is a strong association between *waqf* lands and the prevalence of mosques, *pesantren*, and madrasas in columns 1–3, respectively. Looking at IV estimates, a 10% increase in land under *waqf* leads to 1.4 more mosques, 0.26 more *pesantren*, and 0.5 more madrasas in the village. These effect sizes are large enough to explain downstream variation in Islamism. In columns 4–5 of Table 6, we estimate significant impacts of *waqf* land on support for Islamist parties. The IV estimates imply that a 10% increase in *waqf* lands leads to a 1.5 percentage point increase in the Islamist vote share from 1999 to 2014, relative to a mean of 15.4%.

Finally, columns 6–7 of Table 6 look at effects of the *waqf* on linkages between Islam and the state, measured by the number of local employees of the Ministry of Religious Affairs (column 6) and the number of *sharia* regulations adopted in the district (column 7). These estimates are somewhat imprecise but again point to positive effects of *waqf* land on religious politics. For example, a 10% increase in *waqf* leads to 0.26 more *sharia* regulations adopted in the district between 1998-2013—a 15% effect relative to the sample mean of 1.7.

Across all outcomes, the IV estimates are larger than the OLS, and this difference is statistically sig-

nificant for most outcomes (based on Hausman-type tests). There are several potential explanations. First, this could be due to measurement error in *waqf* land reported by village officials in *Podes*. Second, it is consistent with a large local average treatment effect (LATE) if *waqf* lands created as a result of the BAL were relatively more productive than marginal lands endowed in *waqf* in normal times. Since the IV isolates the effects of *waqf* endowments created during the 1960s (as discussed in Section 4.3), the corresponding coefficients are likely to be large in magnitude. Third, regions experiencing the greatest uptick in *waqf* due to the BAL may have been those where the Islamist movement was the most resource-constrained before the reform. Finally, complementary to the LATE interpretation, the OLS may, in fact, be biased downward for two reasons: (i) if less productive lands are more likely to be endowed as *waqf* in regular times, and (ii) the moderate Islamic organizations that reject Islamism (i.e., *Muhammadiyah* and NU) command more *waqf* land on account of the fact they faced less repression historically.

Agricultural and Economic Outcomes. Kuran (2001, 2011) argues that the traditional *waqf*'s inflexibility posed increasing costs on Islamic society, especially after the introduction of the corporation. From this perspective, the perpetual alienation of property inevitably becomes inefficient as modes of production and technologies change. Because the terms of traditional *waqf* cannot be changed, the *waqf* "locks" land into inefficient uses and unlike a corporation, cannot be easily dissolved when it is no longer viable. The 20th century *waqf* in Indonesia, like elsewhere in the Muslim world, are mostly of the more flexible modern variety described by Kuran (2016) as akin to a charitable foundation (see Section 3.2). Yet, it is possible that modern *waqf*-endowed assets are less efficient than alternative property arrangements. This may be especially true in an agricultural economy where land is the most valuable asset.

Table 7 shows that the land reform adversely affected village-level agricultural productivity via its impact on *waqf*.[44] We report reduced form, OLS and IV specifications. In Panel A, column 1 shows that expropriation intensity is associated with lower agricultural income per capita, as measured using crop-specific output from *Podes* 2003 and prices from the Food and Agriculture Organization. The IV estimate in Panel C suggests that this effect runs in part through *waqf*: a 1% increase in *waqf* land reduces agricultural income per capita by 2.5%. Column 2 reports similar, albeit noisier, negative effects on agricultural output per hectare planted, appropriately weighted by crop-specific revenue shares (see Bazzi et al., 2016). Some of these productivity losses may be due to lower capital intensity relative to labor (column 3) and land (column 4).

These results are consistent with at least four potential mechanisms. First, the *waqf* endowment may impart certain restrictions on crop choice that restrict farmland to be used to grow food crops demanded by local beneficiaries (e.g., students at the *pesantren*) rather than potentially more profitable cash crops for consumption outside the village. Second, most *waqf*-endowed land is farmed under a sharecropping arrangement known as *muzara'a*, a type of partnership compliant with Islamic law.[45] Given the well-known inefficiencies of sharecropping (Burchardi et al., 2018; Marshall, 1890), the *waqf* could have inhibited alternative, productivity-enhancing tenancy arrangements. Third, the *waqf* may limit the scope

[44] These results are restricted to villages with agricultural production in 2003. See Appendix B for details on the measures.

[45] In the Gontor example (Section 3.3), once the land was designated as *waqf* in the early 1960s, the *waqf* administrator, a local cleric, maintained the prior sharecropping terms with each cultivator holding 1 ha of land as these terms were deemed *sharia*-compliant (Winarko, 2006).

for reinvestment and future growth given that much of the revenue is allocated towards short-run religious consumption (by mosques and schools, see Jahar, 2005, for examples). Finally, with relatively cheap labor under coercion by religious authority, *waqf* administrators may be prone to labor-intensive modes of production at the expense of capital upgrading.

In column 5 of Table 7, we find null effects on nighttime light intensity in 2003. This is the best available proxy for overall village-level development in the absence of a more complete measure of non-agricultural income.[46] While we cannot rule out large negative or positive effects, the weak effects of expropriation intensity and *waqf* on overall development suggests that the economic consequences may be circumscribed to agriculture. That the agricultural income losses are not mirrored in light intensity seems plausible for the average village where one-quarter of the population reports agriculture as their primary occupation (in the 2000 Population Census). The results in column 5 also goes against an alternative interpretation of our findings, namely that Islamist dominance grew in districts most affected by the land reform because these districts became systematically less developed. We explore other alternative explanations, including an inequality channel, in Section 6.1.

Ultimately, we view these economic effects as being closely connected to the political ones. First, one does not need a great deal of *waqf* land to sustain a mosque or Islamic school, which can exert sizable political impacts. However, the mere 6% of zoned land under *waqf* in the average village seems too limited for the economy-wide losses in aggregate income of the sort conjectured by Kuran (2011) for the historical Middle East, where *waqf* land comprised as much as half or even three-quarters of all land. Nevertheless, by controlling productive assets, religious authorities in Indonesia accrue political rents. Even if it were possible to convert the *waqf* land to an alternative use, religious leaders would have little incentive to do so as it could undermine their authority over laborers on that land.

5.6 Summary and Proposed Mechanisms

Our findings thus far suggest that the 1960 land reform led to the entrenchment of Islamism in regions facing the greatest expropriation intensity. We argue that the causal pathway runs through *waqf* land endowments, which provided conservative religious authorities a resource base with which to grow and expand their efforts to push for a greater role of Islam in public life. We show that this was not due to an underlying change in piety and religious practice.

Instead, we view the results above as consistent with three mutually reinforcing mechanisms: (i) greater exposure to Islamist ideology through mosques and religious schools, (ii) greater mobilization through mosque- and school-based activist networks, and (iii) a greater pipeline of potential Islamist leaders educated in religious schools and nurtured in mosque-based youth groups. The findings in Table 4 are consistent with a greater adherence to Islamist ideology (panel a) and a larger supply of Islamist politicians mobilized in part through school networks (panel b) in districts most exposed to the land reform. Each of these mechanisms is in line with the qualitative literature on Islamist politics in Indonesia, some of which was cited throughout the results discussed above.

[46] The sample size falls due to mismatches between villages in *Podes* 2003 and those in the shapefiles underlying the light intensity data. Restricting columns 1–4 to those with non-missing light intensity leaves the results unchanged.

6 Alternative Explanations and Robustness Checks

This section provides additional evidence bolstering the case for our interpretation of the main results. First, we consider several leading alternative explanations. Second, we present additional robustness checks, including an examination of the other expropriation cutoffs at 50 and 250 people/km^2.

6.1 Alternative Explanations

We argued earlier that *waqf* endowments are the key mediator linking the land reform to the entrenchment of Islamism. Here we examine and rule out several alternative explanations that are not related to Islamist politicization of *waqf*-endowed institutions.

Residual Land Inequality. One possibility is that the land reform affected the land distribution. This would be a concern if land inequality increases support for Islamism (e.g., as an alternative to secular elites). Columns 1, 3, and 5 of Table 8 show that expropriation intensity did not substantially affect the change in the number of holdings above 5 hectares from 1963 to 1980, 1985, and 1990, respectively.[47] Columns 2, 4, and 6 report analogous tests using district-level estimates of the Pareto dispersion parameter (λ) over those same time horizons. The results suggest that expropriation intensity did not reduce inequality in the countryside in the first few decades after the reform.[48]

Overall, the lack of an effect on inequality is consistent with the historical record discussed earlier. In particular, a small fraction of expropriable lands had been reallocated by 1965 (40% and 5% in Phase I and Phase II regions, respectively), and most of these lands were reclaimed by their original owners in the years following the regime transition. Yet, the null result may seem puzzling given that the *waqf* transfers alone could have changed inequality by reallocating land from large holders. However, note that in most cases, this land simply changed hands without being broken up into small parcels, which would have happened had this land been expropriated by the state. Also, many large holders may have transferred their excess land to a few religious institutions in their communities, which would have potentially increased land concentration.

Demographic Changes from the 1965–66 Mass Violence. Another concern is that the massacre of suspected Communists may have tracked the land reform. While the data limitations concerning this episode of potential genocide are well known (Cribb, 1990), we explore this possibility in columns 7–8 of Table 8, where we test for effects of the land reform on two measures of demographic change that are potentially informative about the incidence of mass violence: population growth between 1961–71 (column 7), and changes in male-to-female sex ratios between 1961 and 1971 (column 8).

[47] These post-reform data come from large-scale Population Census and intercensal survey data. While there was another Agricultural Census conducted in 1973, the data are only publicly available in aggregate regional tabulations not suitable for district-level analysis.

[48] We find similar null results using village-level Pareto dispersion parameters (λ) estimated from the Agricultural Census in 2003 (reduced form coefficient of 0.030 with a standard error of 0.137). Moreover, there appears to be no systematic relationship between *waqf* land and λ at the village level based on OLS and IV specifications.

Expropriation intensity does not significantly correlate with these proxies for mass violence.[49] This has two implications for our main results. First, the effects we find on contemporary support for Islamism are not likely to be explained by changes in the underlying voting population, which is consistent with the null effects on religious identity in Table 5. Second, even if Islamist groups organized around *pesantren* contributed to the mass violence in 1965–66 (Fealy and McGregor, 2010), the districts with greater expropriation intensity were not necessarily those where the mass killings disproportionately took place. Overall, these results provide further support to the particular channels we highlight in Section 3.3: the land reform contributed to contemporary support for Islamism through its effect on specific Islamic institutions. Of course, a corollary to this explanation is that these religious institutions may have helped to maintain a strong and persistent ideological opposition to any potential resurgence of Communism in Indonesia.

Schooling and Public Goods. Given its impact on the supply of religious educational institutions, the land reform could have affected local support for Islamism via public goods provision. Citizens may support Islamists because they provide more local public goods than secular and moderate representatives. This reciprocity-based mechanism has been put forward in other contexts to explain support for Islamists (see, e.g., Cammett and Luong, 2014, on the Muslim Brotherhood). We find no evidence of this alternative explanation across a range of outcomes in Table 9: the number of public schools per 1,000 children built in the district in the 1970s as part of the government's landmark *INPRES* program (column 1, see Duflo, 2001, on the program); mean years of schooling in the 2000 village population (column 2) and the share with primary (column 3), junior secondary (column 4), and senior secondary school completed (column 5); and two summary indices capturing a host of village-level public goods in health (column 6) and infrastructure (column 7) from 1999 to 2014 (see the table notes). The small null effects across these outcomes suggests that the land reform did not lead to sizable shifts in access to education or broader public goods. Rather, the *waqf* transfers in the 1960s empowered Islamists to provide a different *type* of public good more focused around conservative religion in lieu of the prevailing alternatives.

6.2 Further Robustness Checks

Before concluding, we discuss several robustness checks on the outcomes in Tables 1–3. Recall from Section 5 that our results are robust to a range of alternative specifications and controls in Appendix Tables A.8–A.10. This section describes additional checks, all of which are elaborated in Appendix A.7.

Appendix Tables A.11–A.13 demonstrate robustness to alternative RD specifications. For comparison, the top row of each table reports estimates from the baseline specification. First, we vary the degree of the polynomial in the running variable (1960 population density) in equation (1). Our main results are robust to alternative polynomials (linear, quadratic, and quartic) besides the cubic one used in the baseline. Second, we vary the bandwidth around the population density cutoff of 400 people/km^2, with

[49] These null findings are in line with a consensus view among demographers of Indonesia that there is little evidence of missing people in Population Censuses conducted after the violence during the 1960s. We confirmed this view in several lengthy email discussions in 2013 with Terrence Hull and Peter McDonald, leading demographers with decades of experience working on the Population Census in Indonesia.

bandwidths ranging from 100 to 300. The difference-in-discontinuity estimate remains positive and significant in most of these specifications. At the lower end, we hit constraints on the capacity to estimate statistically well-powered regressions as we are left with too few districts (46 out of 191). We view these results not as illustrating the fragility of our findings but rather the limits of the available identifying variation from the historical policy.

Other Population Density Cutoffs. Appendix Tables A.14–A.16 probe the role of other cutoffs used in the land reform. While our analysis focuses on the 400 people/km^2 cutoff, the reform plan stipulated two other cutoffs at 50 and 250 people/km^2. For districts subject to these cutoffs, enforcement was weaker and redistribution efforts much less advanced by the time the land reform was halted in the mid-1960s, as discussed in Sections 2.1 and 4.2. Nevertheless, it is possible that expectations of future expropriation changed behavior even though the threat was never materialized as it did for districts subject to the 400 cutoff. We consider this possibility using two approaches to identifying the effects of expropriation at these other cutoffs.

First, we estimate a version of equation (1) where we "pool" all three cutoffs and match each district to the nearest cutoff: districts under 150 people/km^2 are matched to the 50 cutoff, districts between 150–325 people/km^2 are matched to the 250 cutoff, and districts above 325 people/km^2 are matched to the 400 cutoff. In this case, marginal expropriable holdings (MEH) are defined for each cutoff following the BAL schedule: holdings between 5–9 hectares at the 400 cutoff, 7.5–12 hectares at the 250 cutoff, and 10–20 hectares at the 50 cutoff. The difference-in-discontinuity estimate remains positive in all tables, and is statistically significant in many columns of Appendix Tables A.14–A.16. However, the fact that little expropriation occurred at the 50 and 250 cutoffs suggests why these results might be less precise.

Second, we look for difference-in-discontinuities in outcomes at each cutoff. This specification separately estimates the effect of expropriation intensity at the 50, 250, and 400 cutoffs, using the relevant definition of MEH at each cutoff. The bottom panel of Appendix Tables A.14–A.16 reports the corresponding estimates of β^{50}, β^{250}, and β^{400}.[50]

Overall, there is limited evidence that expropriation intensity at the 50 and 250 people/km^2 cutoffs affected outcomes of interest. The difference-in-discontinuity coefficients associated with these cutoffs are small in magnitude and insignificant in Appendix Tables A.14–A.16. On the other hand, the difference-in-discontinuity estimated at 400 people/km^2 remains positive and significant across nearly all specifications. Our core results are therefore robust to accounting for identifying variation at the two other population density thresholds stipulated in the BAL.

These heterogeneous effects of the land reform across the three policy cutoffs resonate with the history of the land reform prior to its reversal. Under Phase I of the reform, redistribution began in the more central and populous Inner Islands of Java, Bali, and NTB where 400 was practically the only relevant cutoff (i.e., 2 out of 95 districts fell under 50 people/km^2, and 7 fell in the 50–250 range). Under Phase II, redistribution effort was slated to expand to the more sparsely populated Outer Islands where the 50 cutoff was the only meaningful one (i.e., 2 out of 96 districts had more than 250 people/km^2). However, by the time efforts got underway in this second stage, the turmoil of the mid-1960s and seizure of power

[50] See Appendix Section A.7 for a detailed description of this specification.

by Suharto had already led to a scaling back and eventual halt to most government-led redistribution efforts. Putting this history together, it is clear why we find such muted effects around the 50 and 250 people/km^2 cutoffs and much stronger effects at 400.

7 Conclusion

This paper provides causal evidence of the effects of Islamic institutions on religious politics and the spread of Islamism in the world's largest Muslim country. Our results suggest that a major Islamic institution, the *waqf*, played a disproportionately important role at a critical juncture in Indonesian history. The 1960 land reform exempted religious lands from redistribution, prompting rural landowners to transfer their holdings to *waqf* endowments to avoid seizure by the government. These transfers proved especially valuable for the Islamist movement, which was able to use the endowed institutions—mosques and religious schools—to entrench their conservative ideology and ultimately influence the course of politics. Today, citizens in affected regions demand a greater role for Islam in public affairs and are more successful in implementing that preference. We find that these institutional changes are not due to a change in piety per se but rather to a change in views about the role of religion in public life and the resources available to actors capable of leveraging those views to enact political change.

While the resurgent Islamist movement has brought profound changes to Indonesia, the movement itself remains fractured, with its vote split across three parties, to say nothing of their contentious relationship with moderate Islamic groups. It is possible that the personalized nature of the *waqf* plays a part in this fragmentation, effectively ensuring sustained competition in the market for votes and political support. Iannaccone and Berman (2006) highlight a potential upside, namely that religious competition may act as a moderating force over the long-run under certain conditions. Whether this competition mechanism holds in Muslim countries like Indonesia and what role the *waqf* plays in this process is an important question for future research.

Our findings may have broader implications for understanding the the rise of religious politics in other societies. This pertains, first and foremost, to support for Islamism in the Muslim World. *Waqf* are prevalent across the Middle East, North Africa, and India, where their impacts on Islamism and the economy deserve further exploration. Beyond Islamist politics, the literature on the economics of religion has generally not focused on the impact that specific institutions play in shaping political activism by religious actors and organizations. Much like the *waqf* created in the 1960s continue to influence Indonesian politics, religious institutions may also determine the success of religious influence on politics in the West, or in other parts of the developing world.

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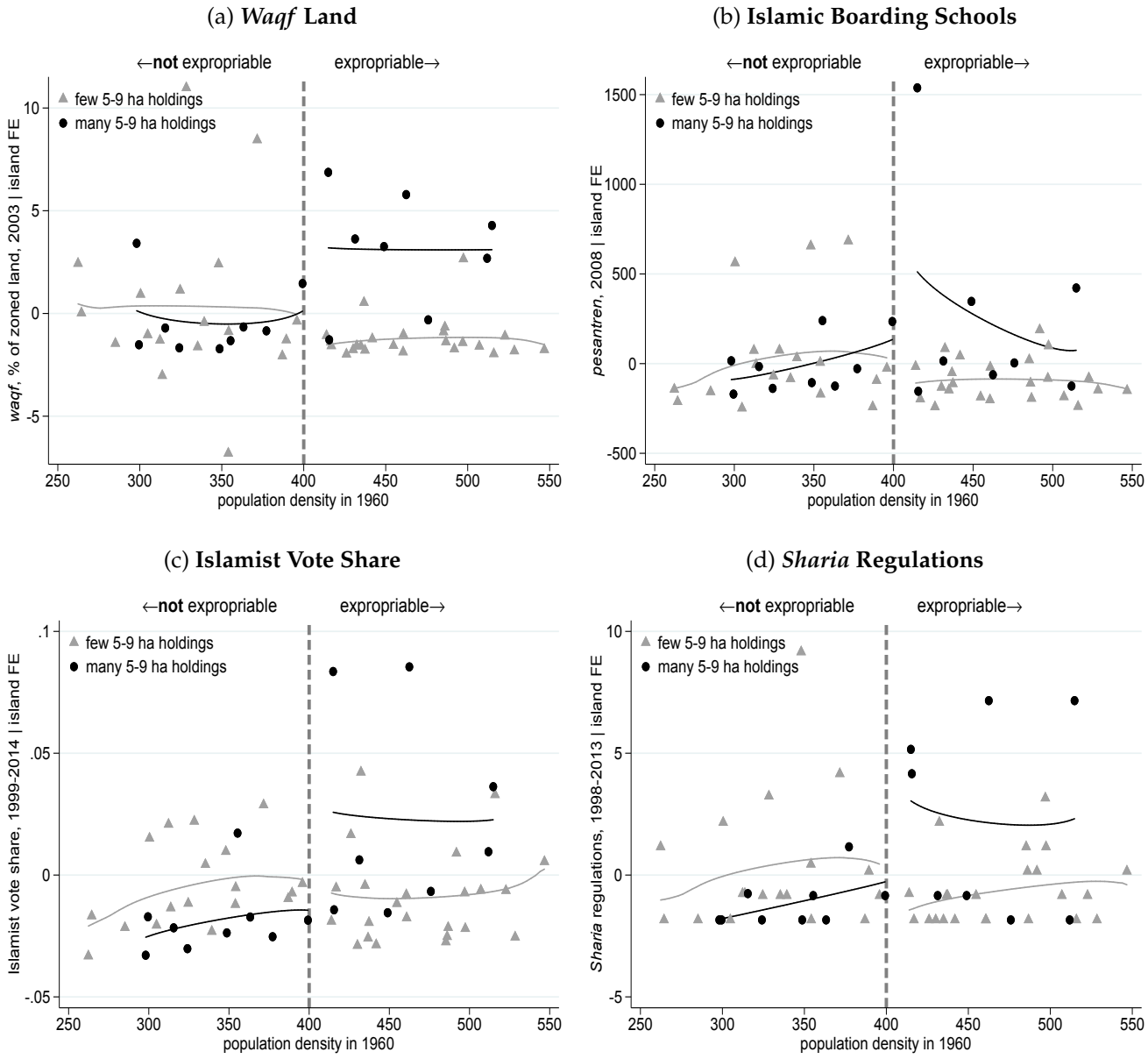
Figures

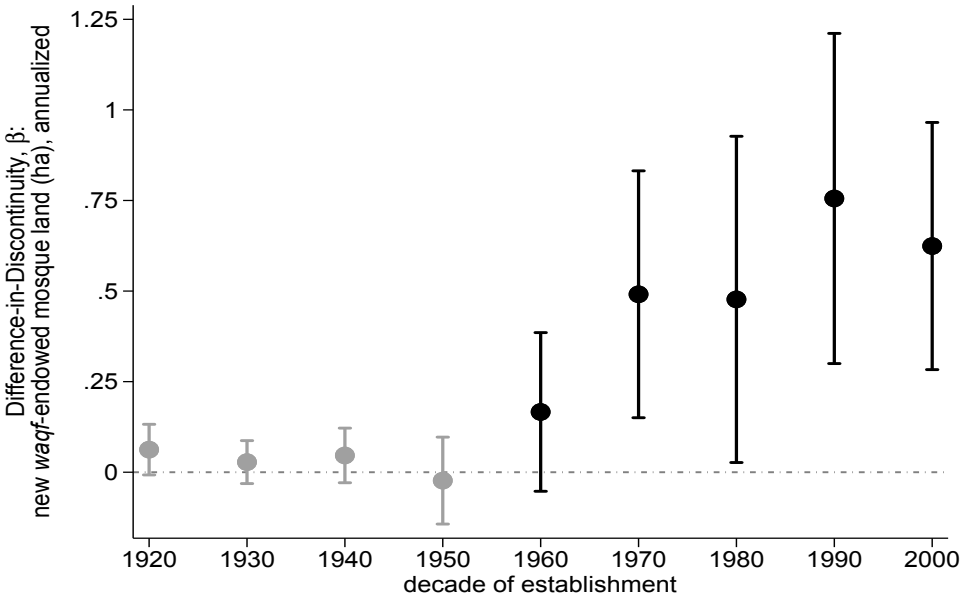
Figure 1: Illustration of the Difference-in-Discontinuities Design
Contemporary *Waqf* and Islamism



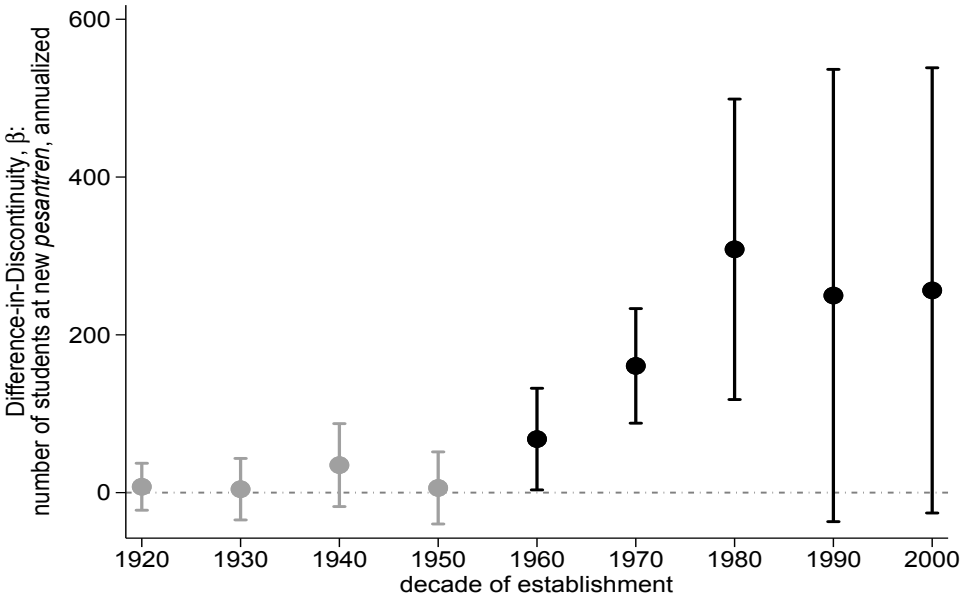
Notes: This figure illustrates how the difference in outcomes between districts with "few" and "many" marginal 5–9 ha landholdings (below and above the median, respectively) changes at the 400 people/km^2 cutoff, above which 5–9 ha holdings are expropriable and below which they are not. We partial out island fixed effects from the outcomes before plotting these figures, in keeping with our within-island research design. We restrict the graph to districts in the 250–550 people/km^2 range for presentational purposes, but the above/below median split is based on the full sample. Our estimating equation (1) uses the full, continuous variation in 5–9 ha holdings whereas this figure splits the full sample of districts into the above and below median 5–9 ha holdings. As such, this should be read only as an approximation to the identifying variation in the regression results reported in subsequent figures and tables. The curves are local linear regressions with an Epanechnikov kernel and bandwidth of 50.

Figure 2: Timing of *Waqf* Endowments

(a) *Waqf* Land Endowments in Newly Created Mosques



(b) Size of Newly Created *Pesantren*



Notes: This figure shows difference-in-discontinuity estimates based on equation (1) fully interacted with decade dummies. The unit of observation is a district–year from 1920 to 2009, and the dependent variable is (a) the amount of *waqf* land allocated to newly established mosques, and (b) total student enrollment in newly established *pesantren*. Each coefficient (circle) can be read as the annual effect of an additional 100 marginal expropriable landholdings (MEH) on the given outcome in the given decade. Both outcomes are constructed from Ministry of Religion administrative records. Standard errors are clustered by district, and the vertical bars represent 90% confidence intervals. In (a), we can reject the null that the coefficient for the 1960s is the same as the coefficient for the 1950s with a p-value equal to 0.010. The corresponding p-value for (b) is 0.093. See Appendix Table A.3 for regression output based on pooling all pre- and post-1960 years rather than decade-specific event studies.

Tables

Table 1: Contemporary *Waqf* Land and *Waqf*-Endowed Institutions

	Waqf Land			*Waqf*-Endowed Institutions		
	hectares	% total	% zoned	mosques	*pesantren*	madrasas
	(1)	(2)	(3)	(4)	(5)	(6)
expropriation intensity	0.207**	0.251**	3.286**	2.956***	0.532**	1.024**
	(0.097)	(0.107)	(1.483)	(0.985)	(0.264)	(0.410)
Number of Villages	55,200	55,200	55,200	48,978	48,978	48,978
Number of Districts	191	191	191	189	189	189
Dependent Variable Mean	0.848	0.518	6.127	3.921	0.503	0.787
R^2	0.033	0.005	0.044	0.234	0.165	0.195

Notes: This table reports estimates of equation (1). *Waqf* land is observed in the 2003 Podes village survey and measured in hectares (hyperbolic sine transformed) in column 1, as % of total land in column 2, and as % of zoned land in column 3. *Waqf*-endowed institutions are observed at the village level in 2008 and include: the number of mosques in column 4, the number of Islamic boarding schools (*pesantren*) in column 5, and the number of Islamic day schools (madrasa) in column 6. *Expropriation intensity* denotes the interaction of an indicator equal to one for districts above 400 people/km^2 in 1960 (*Above400*) with the number of marginal expropriable holdings (MEH, in 100s) in the size category subject to redistribution above this cutoff according to the Basic Agrarian Law, namely holdings between 5 and 9 hectares. The coefficients on each of the own terms are included in the regression but not reported here. The specification includes island fixed effects and a cubic polynomial in 1960 population density interacted separately with the two land reform exposure variables (*Above400* and MEH) and their interaction. The sample size drops in columns 4–6 as the data could not be linked to the baseline 2003 data for certain villages as a result of changes in administrative codes and boundaries. Including a combined measure of *pesantren* and madrasa for the complete sample in 2003 yields a coefficient of 0.689 (0.270)**.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table 2: Islamist Party Support in Legislative Elections

	Village	District Level	
	1999	1999	1999-2014
	Top 3 Finish	Vote Share	Vote Share
	(1)	(2)	(3)
	(a) Islamist Parties		
expropriation intensity	0.158*	0.049**	0.044**
	(0.083)	(0.024)	(0.020)
Number of Villages	55,200	189	746
Number of Districts	191	–	–
Dependent Variable Mean	0.516	0.136	0.154
R^2	0.051	0.205	0.222
	(b) Moderate Islamic Parties		
expropriation intensity	-0.129	-0.024	-0.008
	(0.083)	(0.037)	(0.023)
Number of Villages	55,200	189	746
Number of Districts	191	–	–
Dependent Variable Mean	0.468	0.170	0.152
R^2	0.204	0.387	0.339
	(c) Secular Parties		
expropriation intensity	-0.009	-0.025	-0.036
	(0.028)	(0.044)	(0.031)
Number of Villages	55,200	–	–
Number of Districts	191	189	746
Dependent Variable Mean	0.932	0.695	0.695
R^2	0.270	0.414	0.327

Notes: This table reports estimates of equation (1). The dependent variable is: an indicator of whether a given political family finished in the top 3 in the 1999 national legislative elections, as observed in the 2003 *Podes* (column 1), district-level vote shares in the 1999 elections (column 2), and district-level vote shares in each of the 1999, 2004, 2009 and 2014 elections (column 3). The top panel reports effects on electoral support for Islamist parties, which include the United Development Party (PPP), the Prosperous Justice Party (PKS), and the Crescent Star Party (PBB). In the middle panel, electoral support is defined with respect to moderate Islamic parties: the National Mandate Party (PAN) and the National Awakening Party (PKB). Unlike Islamist parties, which rejected *Pancasila* in 1999 and had advocated for including Islamic law in the Indonesian Constitution, these two parties have pluralistic ideologies that embrace *Pancasila*, the secular-nationalist doctrine of the Indonesian state. The bottom panel looks at effects on support for all other, secular parties, including the Indonesian Party of Struggle (PDI-P) and the Golkar Party. See Appendix Tables A.5 and A.6 for party-specific outcomes. Regressions in column 1 are at the village level while regressions in columns 2 and 3 are at the district and district×election year level, respectively. See the notes to Table 1 for additional details on the specification and Appendix Table A.1 for summary statistics.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table 3: Islamist Capture of Local Governance

	Local Relig. Gov. Officials	*Sharia* Regulations	*Sharia* Microfinance	Islamic Court Cases re:			Islamist Vigilante Activity	
				Waqf	Inherit.	Marital	Incidents	Casualties
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
expropriation intensity	0.628**	0.600**	0.346	1.153*	0.825**	0.045	0.837**	1.119***
	(0.267)	(0.289)	(0.237)	(0.603)	(0.397)	(0.424)	(0.349)	(0.357)
Number of Districts	191	191	189	80	80	80	114	114
R^2	0.297	0.136	0.435	0.436	0.688	0.451	0.268	0.304

Notes: This table reports estimates of equation (1) for several outcomes, all of which are standardized: the number of district-level government employees dedicated to managing religious affairs in the local Ministry of Religion office (column 1), the number of *sharia* regulations adopted in the district between 1998–2013 (column 2), the share of villages in the district with at least one *sharia*-based microfinance institution (column 3), the number of *sharia* court cases related to *waqf*, inheritance, and marriage/divorce (columns 4–6, respectively), and the number of incidents (column 7) and casualties (column 8) inflicted by the *Islamic Defenders Front* (FPI), an Islamist vigilante group. All regressions are run at the district level. The sample size is smaller in columns 4–8 due to missing data on court cases and Islamist vigilante activity. Expropriation intensity is not significantly associated with attrition in either dataset (see text for details). See the notes to Table 1 for additional details on the specification and Appendix Table A.1 for summary statistics.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

Table 4: Demand for and Supply of Religious Politics

	(a) **Demand**: Survey Responses					
Data Source:	IFLS Survey		Pepinsky et al. Survey			
Outcome:	*candidate [...] very impt. in determining vote*		Muslim president	Religiosity president	Sharia Law	
	religion	religiosity	very impt.	very impt.	support objective	support subjective
	(1)	(2)	(3)	(4)	(5)	(6)
expropriation intensity	0.092***	0.083***	0.117***	0.088**	0.056*	0.062
	(0.026)	(0.029)	(0.044)	(0.043)	(0.033)	(0.052)
Number of Individuals	43,965	43,965	1,825	1,822	1,840	1,709
Number of Districts	157	157	129	129	129	129
Dependent Variable Mean	0.394	0.406	0.665	0.770	0.435	0.605
R^2	0.084	0.076	0.052	0.035	0.087	0.082

	(b) **Supply**: Legislative Candidate Entry					
Outcome:	campaign on Islam & Sharia	Hajj experience	religious scholar	occupation: teacher	student	teacher/student Islam campaign
	(7)	(8)	(9)	(10)	(11)	(12)
expropriation intensity	9.624***	43.406***	0.809**	14.319***	5.692	1.411***
	(3.318)	(15.805)	(0.322)	(5.117)	(4.241)	(0.461)
Number of Districts	191	191	191	191	191	191
Dependent Variable Mean	7.1	45.3	0.3	16.9	23.6	0.7
R^2	0.160	0.267	0.324	0.309	0.239	0.183

Notes: This table reports estimates of equation (1) for demand-side survey responses (panel a) and supply-side legislator responses (panel b). In Panel (a), columns 1–2 look at two outcomes from the *Indonesia Family Life Survey* (IFLS): an indicator for whether the religion (column 1) and the religiosity (column 2) of a candidate is a very important factor in individual voting decisions. Panel (a), columns 3–6 look at outcomes from the Pepinsky et al. (2018) survey data: whether respondents say the president being Muslim (column 3) and being religious (column 4) is very important; and whether they support an index of specific *Sharia*-inspired legal regulations (column 5) and generically support *Sharia* law (column 6). These two surveys do not cover all districts in Indonesia, hence the smaller district sample size. These individual-level regressions control for gender, age and age squared, and an indicator for urban; the IFLS regression additionally controls for survey wave fixed effects. None of these added controls materially affect the results. The regressions in column 1–4 are also restricted to Muslims (see Table 5). In Panel (b), we look at data on legislators' profiles in the 2019 election: the number of candidates for district parliament that mention Islam- or *Sharia*-related concepts in their campaign platforms (column 7), indicate their status as Hajj pilgrims in their formal name listed on the ballot (column 8), hail from a religious scholar background (column 9), report "teacher" as their primary occupation (column 10), report "student" as their primary occupation (column 11), and the number of students and teachers with Islamic campaign platforms as measured in column 7 (column 12). See the notes to Table 1 for additional details on the specification.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table 5: Religious Piety and Private Practice

Source:	IFLS Survey			Pepinsky et al. Survey								
Outcome:	Am I Muslim?	Am I Very Religious?	Trust Co-Muslims More	Am I Muslim	Pray 5x/day	Fast Ramadan	Read Quran	Friday Mosque	Pray Sunna	Prayer Group	Pay Zakat	Practices Index cols. 5-11
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
expropriation intensity	0.033	-0.003	-0.004	-0.002	0.024	0.063	-0.046	-0.065	-0.036	0.006	0.030	-0.014
	(0.050)	(0.006)	(0.014)	(0.032)	(0.043)	(0.043)	(0.060)	(0.048)	(0.046)	(0.055)	(0.056)	(0.039)
Number of Individuals	45,296	43,965	40,727	2,047	1,847	1,848	1,843	1,842	1,829	1,841	1,841	1,848
Number of Districts	158	157	157	137	129	129	129	129	129	128	129	129
Dependent Variable Mean	0.899	0.102	0.119	0.807	0.665	0.817	0.264	0.231	0.177	0.258	0.837	0.440
R^2	0.244	0.037	0.094	0.329	0.132	0.075	0.035	0.076	0.056	0.048	0.048	0.087

Notes: This table reports estimates of equation (1) for the following outcomes: from the IFLS, a dummy for being a Muslim (column 1), self-reported religiosity (column 2), and relative trust towards co-Muslims and non-Muslims (column 3). From the Pepinsky et al. (2018) data, we look at individuals who self-report as Muslim (column 4), individuals who report praying 5 times a day (column 5), fasting during Ramadan (column 6), reading the Qur'an (column 7), always attending Friday prayer (column 8), attending non-mandatory Sunnah prayers (column 9), being part of a prayer group (column 10), and paying *zakat* collection group (col. 11). We also pool all practices in columns 5–11 in an index, and regress this index on our main specification in column 12. All regressions except those in columns 1 and 4 are restricted to Muslims. All regressions control for gender, age and age squared, and an indicator for urban; the IFLS regression additionally controls for survey wave fixed effects. None of these added controls materially affect the results. See the notes to Table 1 for additional details on the specification.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table 6: Effects of *Waqf*-Endowed Land on Religious Institutions and Politics

	Waqf-Endowed Institutions			Religious Politics			
	mosques	*pesantren*	madrasas	Islamist Party Top 3, 1999	Islamist Party Vote Shr. 99-14	Min. Religion Employees	*Sharia* Regulations
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(a) Ordinary Least Squares						
waqf land	0.614***	0.129***	0.177***	0.037***	0.034***	0.102*	0.527**
	(0.067)	(0.021)	(0.028)	(0.007)	(0.008)	(0.060)	(0.229)
Number of Villages/Districts	48,710	48,710	48,710	55,200	191	191	191
Dependent Variable Mean	3.930	0.505	0.791	0.516	0.154	6.474	1.681
R^2	0.231	0.166	0.188	0.052	0.306	0.362	0.139
	(b) Instrumental Variables						
waqf land	14.612**	2.632**	5.062**	0.766**	0.148*	0.654*	2.633
	(6.967)	(1.083)	(2.199)	(0.369)	(0.087)	(0.373)	(2.065)
[weak-instrument robust p-value]	[0.003]	[0.045]	[0.013]	[0.057]	[0.017]	[0.095]	[0.156]
Number of Villages/Districts	48,710	48,710	48,710	55,200	191	191	191
Dependent Variable Mean	3.930	0.505	0.791	0.516	0.154	6.474	1.681
First Stage Effective F Statistic	4.5	4.5	4.5	4.6	7.3	5.8	5.8
Underidentification Test, p-value	0.040	0.040	0.040	0.038	0.016	0.010	0.010

Notes: This table reports estimates of equation (2). Panel (a) reports OLS estimates, and panel (b) reports IV estimates, where we use the difference-in-discontinuity term from equation (1), $Above400 \times MEH$, as an instrument for *waqf* land (hyperbolic-sine transformed as in Column 1 of Table 1). All other controls in equation (1) are retained in the OLS to ensure comparability with the IV. Columns 1–3 examine institutional outcomes from Table 1: the number of mosques (column 1), Islamic boarding schools (*pesantren*, column 2), and Islamic non-boarding schools (madrasa, column 3) observed at the village level in 2008. Columns 4–5 look at outcomes from Table 2: an indicator for whether Islamist parties finished in the top 3 in the 1999 national legislative elections (column 4), and the district-level vote share received by Islamist parties across the 1999, 2004, 2009 and 2014 elections (column 5). Columns 6–7 examine outcomes from Table 3: the number of local government employees dedicated to managing religious affairs (column 6), and the number of *sharia* regulations adopted in the district between 1998–2013 (column 7). See the notes to Table 1 for additional details on the specification.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

Table 7: *Waqf* Land, Agricultural Development, and Misallocation

	log agric. GDP/capita (1)	log agric. productivity (2)	capital/labor ratio (3)	capital/land ratio (4)	light intensity (5)
	(a) Reduced Form				
expropriation intensity	-0.577***	-0.113*	-0.729***	-0.050**	0.112
	(0.215)	(0.059)	(0.298)	(0.025)	(0.103)
Number of Villages	47,598	47,598	47,598	47,597	41,459
Number of Districts	191	191	191	191	187
Dependent Variable Mean	13.012	-0.473	2.223	0.111	1.648
R^2	0.060	0.158	0.038	0.017	0.658
	(b) Ordinary Least Squares				
waqf land	-0.011	0.016	0.008	-0.006**	-0.011
	(0.021)	(0.013)	(0.050)	(0.003)	(0.011)
Number of Villages	47,249	47,249	47,240	47,248	41,151
Number of Districts	191	191	191	191	187
Dependent Variable Mean	13.0	-0.470	2.239	0.112	1.657
R^2	0.053	0.159	0.037	0.016	0.657
	(c) Instrumental Variables				
waqf land	-2.526**	-0.495	-3.219**	-0.221*	0.563
	(1.013)	(0.335)	(1.444)	(0.122)	(0.495)
[weak-IV robust p-value]	[0.008]	[0.058]	[0.015]	[0.049]	[0.272]
Number of Villages	47,249	47,249	47,249	47,248	41,151
Number of Districts	191	191	191	191	187
Dependent Variable Mean	13.0	-0.470	2.239	0.112	1.657
1st Stage Effective F Stat	6.4	6.4	6.4	6.4	4.5
Underidentification, p-value	0.012	0.012	0.012	0.012	0.038

Notes: This table reports estimates from equation (1) in panel (a), and estimates from equation (2) in panels (b) and (c) using OLS and IV, respectively, as in Table 6. The village-level dependent variable, measured in 2003, is: the log of agricultural GDP per capita (column 1), the revenue-weighted log of output per hectare by crop (column 2), the total number of agricultural machines per capita (column 3) and per hectare planted (column 4), and nighttime light intensity (hyperbolic-sine transformed). The sample in columns 1–4 is restricted to villages with positive production of at least one crop. The sample drops in column 5 due to problems merging luminosity shapefiles with the administrative data in 2003. See the notes to Table 1 for additional details on the specification.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table 8: Alternative Explanations (I): Land Inequality and Demographic Change

	Δ Landholdings Distribution						Δ Demographics, 1961-71	
	1963–1980		1963–1985		1963–1990		population	sex ratio
	no. >5 ha	λ	no. >5 ha	λ	no. >5 ha	λ		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
expropriation intensity	-0.075	-0.206	-0.011	-0.222	0.068	-0.144	-0.090	-0.323
	(0.179)	(0.192)	(0.154)	(0.170)	(0.214)	(0.190)	(0.102)	(0.237)
Number of Districts	191	191	191	191	191	191	168	168
R^2	0.086	0.404	0.131	0.395	0.076	0.359	0.169	0.157

Notes: This table reports estimates of equation (1) for district-level measures of changes in the land distribution since 1963: changes in the number of 5+ hectare holdings and land dispersion (λ) between 1963 and 1980 (columns 1 and 2), 1963 and 1985 (columns 3 and 4); and 1963–1990 (column 5 and 6). Recall that the estimated Pareto parameters, λ, are decreasing in in dispersion/inequality. We also consider district-level population growth between 1961 and 1971 (column 7) growth in the male-to-female sex ratio between 1961 and 1971 (column 8). The sample size is smaller in columns 7–8 due to uncovered districts in the 1971 Population Census. All dependent variables are normalized to have mean zero and standard deviation one. See the notes to Table 1 for additional details on the specification.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

Table 9: Alternative Explanations (II): Schooling and Public Goods

	INPRES Schools	Mean Yrs. Schooling	Population Share with . . . School			Public Goods Index	
			Primary	Junior Sec.	Senior Sec.	Health	Infrastructure
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
expropriation intensity	0.001	-0.030	-0.027	-0.003	0.007	0.005	-0.012
	(0.261)	(0.259)	(0.017)	(0.008)	(0.008)	(0.015)	(0.029)
Number of Villages	190	46,147	46,628	46,628	46,628	41,437	41,437
Number of Districts	190	188	190	190	190	187	187
Dep. Var. Mean	2.241	4.676	0.372	0.123	0.092	0.392	0.497
R^2	0.281	0.126	0.109	0.159	0.114	0.088	0.264

Notes: This table reports estimates of equation (1) for the following outcomes: the number of public primary schools per 1,000 students constructed at the district level by the Suharto government from 1973–78 as part of the *INPRES* program (column 1); the mean years of schooling in 2000 (column 2); the share of the village population in 2000 with primary schooling (column 3), with junior secondary schooling (column 4), with senior secondary schooling (column 5); village-level indices, ranging from zero to one, capturing the presence of health public goods including doctors, midwives, and health clinics (column 6) and infrastructure public goods including 4-wheel road access, safe water, sewage, garbage collection, and kerosene supply (column 7). These indices are based on the mean across all rounds of *Podes* from 1999 to 2014. The sample size is smaller in columns 5 and 6 due to changing boundaries and merging difficulties. See the notes to Table 1 for additional details on the specification.

* $p<0.1$, ** $p<0.05$, *** $p<0.01$. Robust standard errors clustered by 1960 district.

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A Further Empirical Results

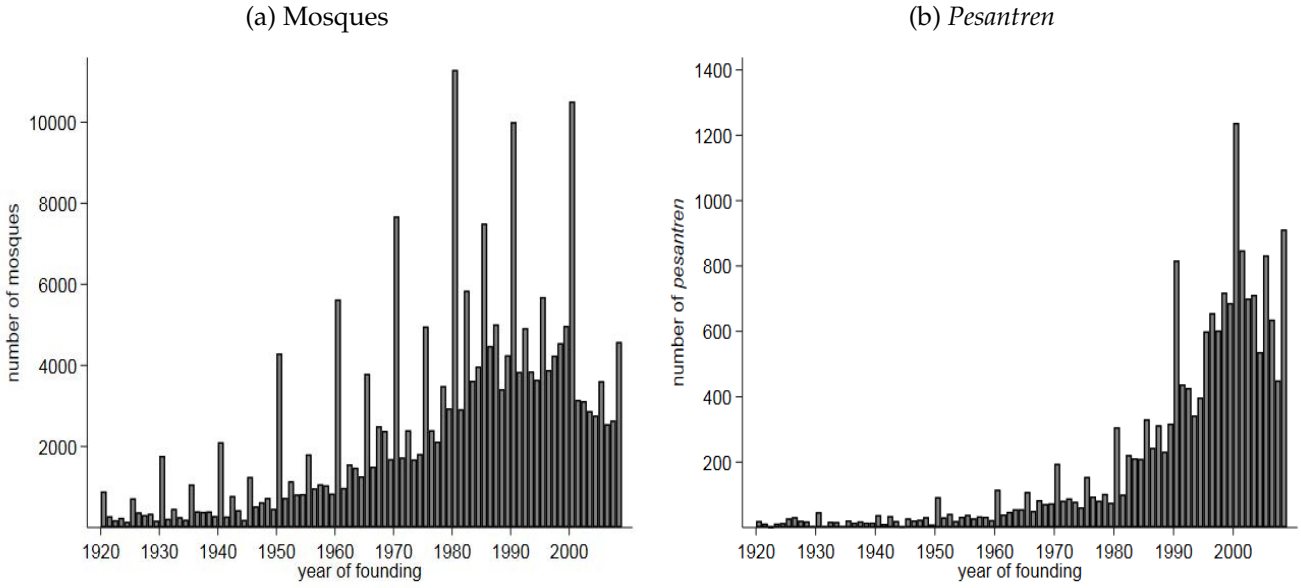
A.1 Descriptive Statistics

Table A.1: Summary Statistics

	Mean	SD	*N*	Source
District-level data				
Historic Population density	342.38	754.34	191	1961 Population Census
Above 400 ppl/km^2 threshold	.309	.463	191	1963 Agricultural Census
Expropriable holdings (5-9 hectares)	392	577	191	1963 Agricultural Census
Baseline land dispersion	.846	.335	191	1963 Agricultural Census
Mosques by 1920	22.7	29.5	191	Min. Relig. Affairs (Kemenag)
Pesantren by 1920	3.4	31.7	191	Min. Relig. Affairs (Kemenag)
Islamic vote 1955–57	.40	.24	191	Electoral Commission
Communist vote 1955–57	.15	.14	191	Electoral Commission
Islamist vote share, 1999	.136	.098	189	Electoral Commission
Islamist vote share, 1999–2014	.154	.086	746	Electoral Commission
Islamic moderate vote share, 1999	.170	.142	189	Electoral Commission
Islamic moderate vote share, 1999-2014	.152	.106	746	Electoral Commission
Local employees Min. Relig. Affairs	777.9	480.3	191	Min. Relig. Affairs (Kemenag)
Sharia regulations	1.7	2.6	191	Buehler (2016)
Islamic microfinance	.058	0.073	189	2017 *Podes*
Islamic court *waqf* cases	.61	1.30	80	Relig. Courts Info. Syst. (SIPP)
Islamic court inheritance cases	208	624	80	Relig. Courts Info. Syst. (SIPP)
Islamic court marital cases	10,840	10,005	80	Relig. Courts Info. Syst. (SIPP)
FPI incidents	.30	.91	114	Violence Monitoring Syst. (SNPK)
FPI casualties	.31	1.03	114	Violence Monitoring Syst. (SNPK)
Candidates campaigning on Islam	7.1	10.8	191	Electoral Commission Site
Candidates with Hajj experience	45.2	47.0	191	Electoral Commission Site
Candidates who are religious scholars	.26	.64	191	Electoral Commission Site
Candidates who are teachers	16.9	16.7	191	Electoral Commission Site
Candidates who are students	23.6	23.7	191	Electoral Commission Site
Candidates who are students/teachers campaigning on Islam	0.73	1.56	191	Electoral Commission Site
Village-level data				
Waqf land in village (hectares)	3.44	39.6	55,200	2003 *Podes*
Waqf in village (% total land)	.52	2.96	55,200	2003 *Podes*
Waqf in village (% zoned land)	6.11	20.8	55,200	2003 *Podes*
Mosques in village	3.92	4.67	48,978	2008 *Podes*
Pesantren in village	.50	1.31	48,978	2008 *Podes*
Madrasas in village	.787	1.83	48,978	2008 *Podes*
Islamist parties in top 3, 1999	.517	.50	55,200	2003 *Podes*
Distance to nearest shrine (km)	669.2	620.6	49,311	Google Maps/GIS
Dist. to subdistrict office (km)	10.0	21.8	55,200	2003 *Podes*
Dist. to district office (km)	46.6	56.2	55,200	2003 *Podes*
Individual-level survey data				
Candidate religion very important	.394	.489	43,965	IFLS
Candidate religiosity very important	.406	.491	43,965	IFLS
Muslim president very important	.67	.47	1,825	Pepinsky et al. (2018)
Religiosity president very important	.770	.423	1,822	Pepinsky et al. (2018)
Support *Sharia* law (objective)	.435	.267	1,840	Pepinsky et al. (2018)
Support *Sharia* law (subjective)	.605	.489	1,709	Pepinsky et al. (2018)

Notes: This table reports means, standard deviations (SD), and sample sizes for dependent and independent variables used in the paper and appendix. For a full elaboration of sources and variable construction, see Appendix B.

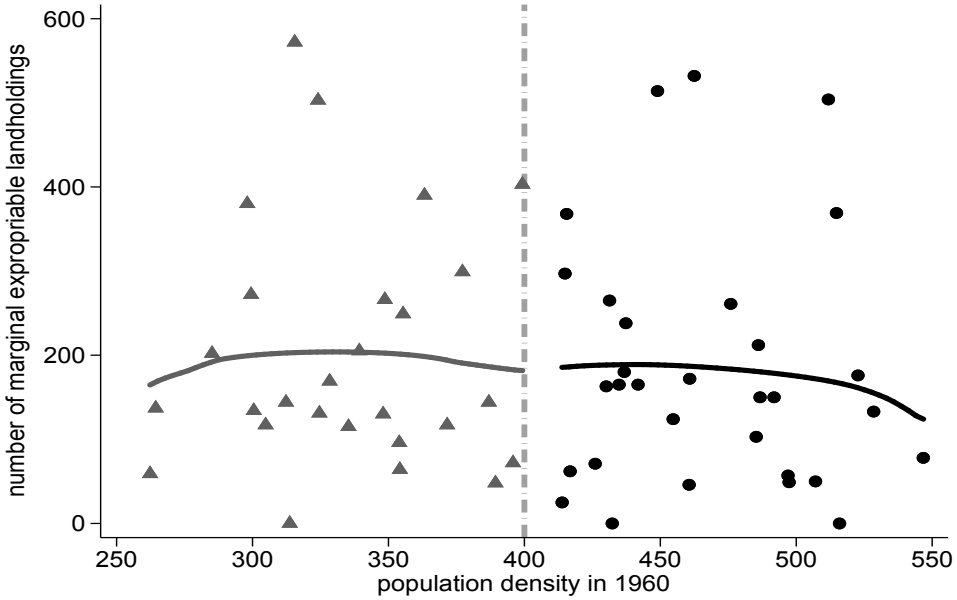
Figure A.1: Distribution of Establishment Dates for Mosques and *Pesantren*



Notes: This figure reports the distribution of establishment dates for the universe of (a) mosques and (b) *pesantren*. Data from the Ministry of Religious Affairs.

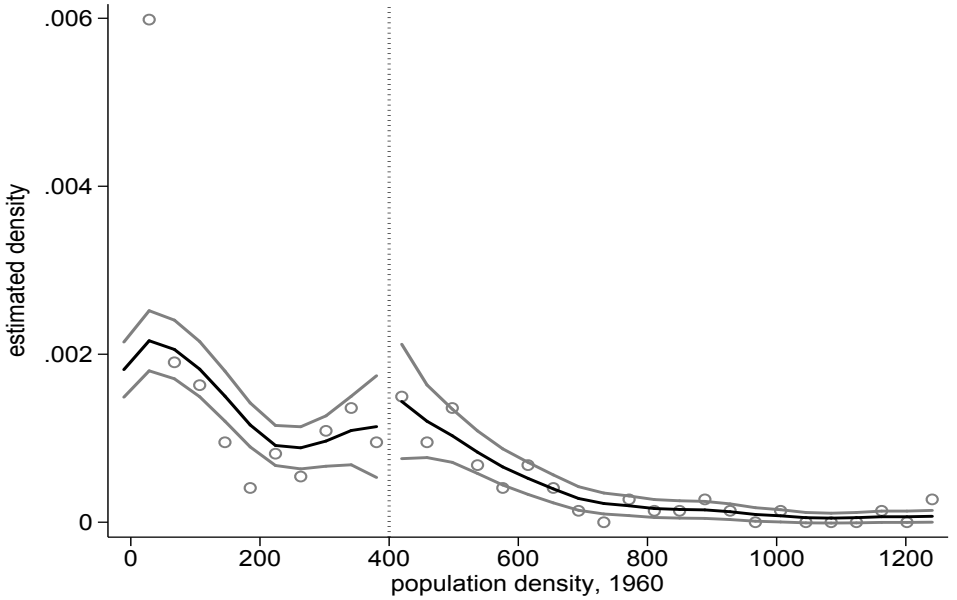
A.2 Identification Checks

Figure A.3: Continuity of Marginal Expropriable Holdings (MEH) Around the 400 Cutoff



Notes: This figure illustrates the continuity of marginal expropriable landholdings (5-9 ha) across the 400 people/km^2 cutoff. We restrict attention to districts in the 250–550 people/km^2 range for presentational purposes. The curves are local linear regressions with an Epanechnikov kernel and bandwidth of 50.

Figure A.4: Population Density: McCrary (2008) Test



Notes: This figure reports the McCrary (2008) test for manipulation of the running variable, population density in 1960. The graph reveals no evidence of such manipulation. The figure excludes three districts with population density above 1300 people/km^2 for presentational purposes.

Table A.2: Balance on Time-Invariant and Pre-Reform Covariates

	N	Mean	Expropriation intensity
Mosques by 1920	191	22.7	5.879
		(29.47)	(7.511)
Pesantren by 1920	191	1.15	-1.454
		(2.49)	(1.513)
Islamist vote, 1955/57	160	.4	.027
		(.24)	(.059)
Masyumi vote, 1955/57	160	.22	.015
		(.2)	(.014)
NU vote, 1955/57	160	.13	.012
		(.15)	(.052)
Darul Islam events	191	.88	.576
		(2.86)	(.537)
Ethnic Arab population, 1930 Pop. Census	179	.67	.514
		(1.2)	(.394)
Ethnic European population, 1930 Pop. Census	179	.84	.122
		(2.23)	(.337)
Ethnic Chinese population, 1930 Pop. Census	179	6.29	4.583
		(13.64)	(3.781)
Communist vote, 1955/57	160	.15	-.072
		(.14)	(.05)
Mean rainfall shocks, 1955-59	191	.05	-.007
		(.06)	(.024)
Mean rainfall shocks, 1960-65	191	-.08	.012
		(.06)	(.012)
Baseline land dispersion, 1963	191	.85	.07
		(.34)	(.054)
Number of males, 1961 Pop. Census	191	215.64	25.554
		(150.54)	(54.555)
Number of females, 1961 Pop. Census	191	221.37	23.4
		(157.82)	(56.158)
Number of farms, 1963 Ag. Census	189	61.16	2.76
		(41.14)	(12.61)
Dryland area (ha), 1963 Ag. Census	190	42.9	-10.041
		(40.58)	(8.877)
Wetland area (Ha), 1963 Ag. Census	189	22.27	5.901
		(17.28)	(3.979)
Total agricultural area (ha), 1963 Ag. Census	190	64.78	-4.18
		(47.49)	(9.765)
Village located on hill	55200	.29	-.035
		(.45)	(.042)
Altitude	55200	287.76	22.145
		(1794.06)	(149.08)
Village located on beach	55200	.1	.036**
		(.3)	(.014)
Distance to nearest shrine (km)	48956	669.15	69.197
		(620.57)	(60.192)
Distance to subdistrict office	55200	10.01	1.725
		(21.78)	(1.122)
Distance to district office	55200	46.53	9.012*
		(56.07)	(5.331)
Java-Bali-NTB	55200	.44	-.018
		(.5)	(.016)

Notes: This table reports balance checks on baseline covariates (either time invariant or measured prior to the land reform) regressed on our baseline specification. Each cell reports estimates from a separate regression. Across columns, we report the number of observations (N), mean and standard deviation in parentheses, and the difference-in-discontinuity coefficient from equation (1).
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

A.3 *Waqf* Establishments across Time Periods

Table A.3 reports results based on aggregating decadal estimates in Figure 2. The data is at the district-by-year level. Columns 1 and 3 look at the entire 1920–2009 period. Columns 2 and 4 examine solely the two decades around the land reform (1950s and 1960s). The first row reports the main effect of expropriation intensity, i.e., the estimate associated with expropriation intensity in the pre-land reform period. The second row reports the interaction between expropriation intensity and an indicator for the post-1960 period.

Table A.3: *Waqf* Land and *Waqf*-Endowed Institutions, 1920–2009

	Waqf Land, New Mosques		Students, New *Pesantren*	
	1920-2009	1950-69	1920-2009	1950-69
	(1)	(2)	(3)	(4)
expropriation intensity (*pre*)	0.075	0.039	18.75	13.38
	(0.055)	(0.088)	(13.81)	(25.98)
expropriation intensity x post-1960	0.490***	0.189***	197.31**	61.94*
	(0.174)	(0.073)	(78.0)	(36.71)
Number of Districts	191	191	191	191
Dependent Variable Mean	0.551	0.435	158.89	64.28
Number of Observations	17190	3820	17190	3820

Notes: This table reports estimates of equation (1) fully interacted with a post-1960 dummy. The dependent variables are measures of *waqf* endowed land given to new mosques and of the number of students enrolled in new *pesantren* between 1920–2009, as in Figure 2. These measures vary at the district-year level. See the notes to Table 1 for additional details on the specification.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

A.4 Alternative Inference Procedures

Table A.4: Alternative Approaches to Inference

	Waqf	*Waqf*-Endowed Institutions			Religious Politics				
	land, ha	mosques	*pesantren*	madrasas	Islamist Party Top 3, 1999	Islamist Party Vote Shr. 99-14	Min. Religion Employees	*Sharia* Regulations	Vigilante Casualties
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
expropriation intensity	0.207	2.956	0.532	1.024	0.158	0.047	0.628	0.600	1.119
clustering by 1960 district, baseline	(0.097)**	(0.985)***	(0.264)**	(0.410)**	(0.083)*	(0.020)**	(0.267)**	(0.289)**	(0.357)***
clustering by 1960 district, wild bootstrap p-value	[0.046]**	[0.004]***	[0.055]*	[0.036]**	[0.098]*	[0.062]*	[0.020]**	[0.057]*	[0.032]**
clustering by 1960 district + Young (2016) effective d.o.f.-adj.	(0.115)*	(1.174)**	(0.315)	(0.489)*	(0.098)	(0.026)**	(0.295)**	(0.320)*	(0.421)**
Conley (1999) spatial HAC, 100 km bandwidth	(0.110)**	(1.039)***	(0.354)	(0.324)***	(0.108)	(0.020)**	(0.208)***	(0.358)*	(0.303)***
Conley (1999) spatial HAC, 300 km bandwidth	(0.111)**	(0.288)***	(0.132)***	–	(0.082)*	(0.014)***	(0.201)***	(0.343)*	(0.207)***
Number of Observations	55,200	48,978	48,978	48,978	55,200	191	191	191	114

Notes: This table re-estimates core results from Tables 1–3 using alternative approaches to inference besides the baseline clustering by 1960, the level at which the land reform policy varies. After that baseline, we use the wild cluster bootstrap, reporting the p-value. The Young (2016) adjustment accounts for the effective degrees of freedom implied by the residual variation. The Conley (1999) spatial HAC allows for correlated unobservables across districts or villages within 100 and 300 km of the given district or village centroid. The missing standard error ("–") is due to a matrix computational failure.

* p<0.1, ** p<0.05, *** p<0.01.

A.5 Party-by-Party Electoral Outcomes

Tables A.5 and A.6 report results for individual political parties in the 1999 and the 2014 legislative elections, respectively. The 3 Islamist parties running in these elections are the United Development Party (*Partai Persatuan Pembangunan*) or PPP, the Prosperous Justice Party (*Partai Keadilan Sejahtera*) or PKS, and the Crescent Star Party (*Partai Bulan Bintang*) or PBB. These parties advocate for an Islamic state based on *sharia* law and reject *Pancasila*, the doctrine promoting a secular and inclusive vision for Indonesia. The two moderate Islamic parties competing in these elections are the National Mandate Party (*Partai Amanat Nasional*) or PAN and the National Awakening Party (*Partai Kebangkitan Bangsa*) or PKB. Both parties endorsed *Pancasila* prior to the 1999 election. Secular parties include the Indonesian Democratic Party of Struggle (*Partai Demokrasi Indonesia Perjuangan*, the party of President Joko Widodo) or PDI-P and the Golkar Party (*Partai Golongan Karya*, the party of former President Suharto), as well as (in the 2014 election) the Great Indonesia Movement Party (*Partai Gerakan Indonesia Raya*) or Gerindra, the Democrat Party (PD), the Nasdem Party (*Partai Nasdem*), the People's Conscience Party (*Partai Hati Nurani Rakyat*) or Hanura, and the Indonesian Justice and Unity Party (*Partai Keadilan dan Persatuan Indonesia*) or PKIP, a split from the Golkar party.

Table A.5: Party-by-Party Voting Results, Top 7 (out of 48) Parties in the 1999 Election

	Islamist			Moderate Islamic		Secular	
	PPP	PKS	PBB	PAN	PKB	Golkar	PDIP
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: Village-Level Top 3 Finish (col. 1 of Table 2)						
expropriation intensity	0.159*	-0.000	-0.000	-0.005	-0.114	-0.037	0.002
	(0.082)	(0.002)	(0.004)	(0.018)	(0.089)	(0.062)	(0.049)
Number of Villages	55,200	55,200	55,200	55,200	55,200	55,200	55,200
Number of Districts	191	191	191	191	191	191	191
Dependent Variable Mean	0.503	0.004	0.021	0.145	0.351	0.829	0.807
R^2	0.047	0.001	0.020	0.056	0.309	0.127	0.210
	Panel B: District-Level Vote Share (col. 2 of Table 2)						
expropriation intensity	0.042**	0.004	0.003	0.013	-0.038	-0.001	-0.030
	(0.021)	(0.003)	(0.003)	(0.008)	(0.043)	(0.020)	(0.033)
Number of Villages	189	189	189	189	189	189	189
Dependent Variable Mean	0.107	0.010	0.019	0.060	0.110	0.276	0.301
R^2	0.178	0.392	0.154	0.540	0.373	0.749	0.427

Notes: This table reports estimates of equation (1) using specifications analogous to those in columns 1 and 2 of Table 2, further disaggregating the three groups of parties reported in that table.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table A.6: Party-by-Party Voting Results, All 12 Parties in the 2014 Election

	Islamist			Moderate Islamic		Secular						
	PPP	PKS	PBB	PAN	PKB	Golkar	PDIP	Gerindra	Demokrat	NasDem	Hanura	PKPI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
expropriation intensity	0.014	0.014*	0.007*	0.006	-0.026	0.014	-0.032*	0.016	-0.013	-0.005	0.007	-0.001
	(0.012)	(0.008)	(0.004)	(0.008)	(0.019)	(0.033)	(0.018)	(0.011)	(0.009)	(0.012)	(0.006)	(0.003)
Number of Villages	175	175	175	175	175	175	175	175	175	175	175	175
Dependent Variable Mean	0.071	0.064	0.028	0.084	0.087	0.151	0.153	0.108	0.097	0.071	0.062	0.025
R^2	0.265	0.234	0.347	0.330	0.411	0.244	0.418	0.151	0.233	0.233	0.399	0.482

Notes: This table reports estimates of equation (1) using a specification analogous to that in column 2 of Table 2 but for the 2014 Legislative Election and further disaggregating the three groups of parties reported in that table. We are missing data for 16 districts that did not post complete voting outcomes to the Indonesian National Electoral Commission website from which we obtained the data (via Nicholas Kuipers).

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

A.6 Individual-Level Voting Outcomes

Table A.7: Voting at the Individual Level in the 2004 Legislative Election

	Voted for ... Party								
	Islamist			Moderate Islamic			Secular		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
piety index	0.132***		0.151***	0.172***		0.151***	-0.286***		-0.292***
	(0.037)		(0.039)	(0.047)		(0.045)	(0.057)		(0.056)
expropriation intensity		0.075**	0.079**		-0.145**	-0.142**		0.045	0.039
		(0.030)	(0.031)		(0.067)	(0.064)		(0.070)	(0.066)
Number of Individuals	1,398	1,398	1,398	1,398	1,398	1,398	1,398	1,398	1,398
Number of Districts	128	128	128	128	128	128	128	128	128
Dependent Variable Mean	0.133	0.133	0.133	0.173	0.173	0.173	0.662	0.662	0.662

Notes: This table reports estimates of equation (1) for voting outcomes in the 2004 legislative election as reported in the Pepinsky et al. (2018) survey data. The dependent variable is an indicator equal to one if the individual voted for an Islamist party (columns 1–3), a moderate Islamic party (columns 4–6), and a secular party (columns 7–9). See the notes to Table 2 for these party classifications. The *piety index* is based on the summary index used in column 12 of Table 5, capturing a range of obligatory and non-obligatory Islamic practices. The specifications are otherwise identical to those using the Pepinsky et al. (2018) data in Tables 4 and 5.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

A.7 Further Robustness Checks

A.7.1 Alternative Specifications

We elaborate here on the robustness checks on our core Tables 1, 2, and 3 as described in Section 6.1. In the tables described below, we report estimates from our baseline specification (1) in the top row, and we describe alternative specification choices in the first column. Each subsequent column reports the difference-in-discontinuity term estimated from a different regression.

In Tables A.8, A.9, and A.10, we check the robustness of our main results to different versions of equation (1) where we include: baseline **agricultural controls** from the 1963 Agricultural Census (number of males, females, and farms, total irrigated land area, and total dry land area); baseline **political controls** (the vote share received by Islamist parties and by the Communist Party in the 1950s elections, and violent events associated with the Darul Islam rebellion); baseline **Islamic organizations** (the number of mosques and *pesantren* in the district by 1920); and **province fixed effects**. In Table A.8, where regressions are estimated at the village level, we also show robustness to including village-level **geographic controls** (altitude, beach location, distance to the nearest subdistrict capital and district capital). All controls are fully interacted with the $Above400$ dummy and the number of MEH. We also show robustness of our core results to **excluding Sulawesi and Sumatra**, motivated by concerns for the quality of the 1963 Agricultural Census data.

The subsequent two rows of Tables A.8, A.9, and A.10 test the robustness of our main results to the assumption that landholdings follow a Pareto distribution. We do this by computing **lower and upper bounds** on the number of MEH in each district, and by estimating the difference-in-discontinuity at these bounds. For the upper bound, note that holdings between 5-9 ha are bounded above by the number of holdings above 5 ha, which is observed in the Census tabulations. We therefore estimate a specification where we use all **holdings above 5 hectares** in lieu of estimated holdings between 5–9 hectares. Our core results are robust (and sometimes stronger) when we use this actual measure of large landholdings.

A plausible lower bound can be obtained from the following simple procedure. We first calculate the total amount of land held in holdings of size 5 ha and above as the difference between total agricultural land in the district and land held in holdings under 5 ha. Next, we compute the largest possible number of holdings with size 9 ha and above, which is simply equal to the total land area calculated in the first step divided by 9. The difference between the observed number of holdings above 5 ha and the maximum number of holdings above 9 ha (set to zero if negative) provides a lower bound on the number of holdings between 59 ha. In Tables A.8, A.9, and A.10, we show that our core results are mostly robust to using this lower bound. The difference-in-discontinuity coefficient remains positive throughout but is sometimes imprecisely estimated. This is not surprising since marginal expropriable holdings increase the amount of identifying variation we can exploit in each district.

Finally, Tables A.8, A.9, and A.10 report a simple **placebo check** where we look for a discontinuous jump in outcomes at 500 people/km^2, which was not a relevant cutoff in the land reform. Here we interact a dummy for districts above 500 people/km^2 (instead of 400 in our main specification) with the number of holdings between 5–9 hectares. As expected, we do not find any evidence that this interaction is associated with the contemporary prevalence of *waqf* lands, *waqf*-endowed institutions, voting for Islamist parties, and Islamist influence on local governance.

Table A.8: *Waqf* Land and *Waqf*-Endowed Institutions: Alternative Specifications

	Waqf Land			*Waqf*-Endowed Institutions		
	hectares	% total	% zoned	mosques	*pesantren*	madrasas
	(1)	(2)	(3)	(4)	(5)	(6)
Baseline specification (Table 1)	0.207**	0.251**	3.286**	2.956***	0.532**	1.024**
	(0.097)	(0.107)	(1.483)	(0.985)	(0.264)	(0.410)
Controls: Agriculture	0.177*	0.274**	3.032**	3.385***	0.420*	1.077**
	(0.102)	(0.114)	(1.442)	(0.768)	(0.214)	(0.499)
Controls: Geography	0.196**	0.250**	3.329**	3.234***	0.539**	1.041**
	(0.098)	(0.106)	(1.480)	(0.928)	(0.259)	(0.412)
Controls: 1955-57 Vote Shares + Darul Islam	0.154*	0.168*	2.958**	2.561***	0.261	0.687**
	(0.082)	(0.088)	(1.475)	(0.797)	(0.228)	(0.288)
Controls: Mosques & Pesantren in 1920	0.124	0.279***	4.720**	2.548***	0.422*	1.117**
	(0.108)	(0.099)	(1.921)	(0.870)	(0.235)	(0.474)
Province Fixed Effects	0.204**	0.265**	2.537**	1.490	0.366	0.712**
	(0.083)	(0.105)	(1.228)	(1.053)	(0.252)	(0.333)
No Sulawesi/Sumatra	0.199**	0.206*	2.014**	3.224***	0.575**	1.122**
	(0.097)	(0.107)	(0.965)	(1.141)	(0.287)	(0.465)
Lower bound on MEH	0.092	0.078	1.695	2.735**	0.164	0.841**
	(0.089)	(0.098)	(1.133)	(1.073)	(0.217)	(0.424)
Upper bound on MEH (all 5+ holdings)	0.076**	0.096***	1.002**	0.952***	0.146*	0.416***
	(0.034)	(0.036)	(0.449)	(0.332)	(0.087)	(0.159)
Placebo: expropriation at 500 ppl/km^2	0.027	-0.043	1.547	0.604	0.023	0.305
	(0.063)	(0.065)	(1.834)	(1.677)	(0.239)	(0.285)
Number of Villages	55200	55200	55200	48978	48978	48978
Number of Districts	191	191	191	189	189	189
Dependent Variable Mean	0.848	0.518	6.127	3.921	0.503	0.787
R^2	0.033	0.005	0.044	0.234	0.165	0.195

Notes: This table reports estimates from variants of equation (1) using the same outcomes as in Table 1. Geographic controls include altitude, coastal location, distance to the nearest subdistrict capital and the district capital. Agricultural controls include number of males, number of females, number of farms, total irrigated land area, and total dry land area measured in the 1963 Agricultural Census. Vote shares refer to Islamic parties and the Communist Party in the 1955/57 legislative elections. Controls are fully interacted with the $Above400$ dummy and the number of marginal expropriable holdings (MEH). The R^2 reported in the bottom panel corresponds to the baseline specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table A.9: Islamist Party Support: Alternative Specifications

	Village	District Level	
	1999 Top 3 Finish	1999 Vote Share	1999-2014 Vote Share
	(1)	(2)	(3)
	Islamist Parties		
Baseline specification (Table 2)	0.158*	0.049**	0.044**
	(0.083)	(0.024)	(0.020)
Controls: Agriculture	0.197**	0.056*	0.053**
	(0.094)	(0.030)	(0.024)
Controls: 1955-57 Vote Shares + Darul Islam	0.112*	0.023	0.027**
	(0.061)	(0.017)	(0.012)
Controls: Mosques & Pesantren by 1920	0.128	0.039	0.044*
	(0.094)	(0.030)	(0.025)
Province Fixed Effects	0.090	0.034	0.031
	(0.092)	(0.028)	(0.023)
No Sulawesi/Sumatra	0.211**	0.057**	0.049**
	(0.094)	(0.027)	(0.022)
Lower bound on MEH	0.177**	0.041*	0.034*
	(0.077)	(0.024)	(0.018)
Upper bound on MEH (all 5+ holdings)	0.050*	0.015*	0.014*
	(0.029)	(0.009)	(0.007)
Placebo: expropriation at 500 ppl/km^2	-0.015	0.001	-0.007
	(0.083)	(0.027)	(0.020)
Number of Villages	55200	–	–
Number of Districts	191	189	191
Dependent Variable Mean	0.516	0.136	0.154
R^2	0.051	0.205	0.222

Notes: This table reports estimates from variants of equation (1) using the same outcomes as in panel (a) of Table 2. The estimate in column 3 pools across all four quinquennial elections. Agricultural controls include number of males, females, and farms, total irrigated land area, and total dry land area. Vote shares refer to Islamic parties and the Communist Party in the 1955/57 legislative elections. Controls are fully interacted with the $Above400$ dummy and the number of marginal expropriable holdings (MEH). The R^2 reported in the bottom panel corresponds to the baseline specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table A.10: Islamist Capture of Local Governance: Alternative Specifications

	Local Relig. Gov. Officials (1)	*Sharia* Regulations (2)	*Sharia* Banking (3)	Islamic Court Cases re: *Waqf* (4)	Inherit. (5)	Divorce (6)	Islamist Vigilante Activity Incidents (7)	Casualties (8)
Baseline specification (Table 3)	0.614**	0.600**	0.346	1.153*	0.825**	0.050	0.837**	1.119***
	(0.266)	(0.289)	(0.237)	(0.603)	(0.397)	(0.423)	(0.349)	(0.357)
Controls: Agriculture	0.495*	0.649	0.803**	1.152**	0.660*	0.032	0.364	0.878
	(0.269)	(0.406)	(0.316)	(0.493)	(0.362)	(0.294)	(0.527)	(0.602)
Controls: 1955-57 Vote Shares + Darul Islam	0.504*	0.388	0.399*	0.924**	0.909	-0.135	0.794*	1.063***
	(0.256)	(0.278)	(0.239)	(0.441)	(0.580)	(0.423)	(0.418)	(0.371)
Controls: Mosques & Pesantren by 1920	0.534*	0.311	0.402*	1.131**	0.743*	-0.092	1.042***	1.272***
	(0.306)	(0.294)	(0.206)	(0.489)	(0.395)	(0.653)	(0.350)	(0.403)
Province Fixed Effects	0.098	0.414**	0.085	0.907	0.237	-0.758	0.881**	1.178***
	(0.243)	(0.180)	(0.243)	(0.755)	(0.409)	(0.588)	(0.358)	(0.369)
No Sulawesi/Sumatra	0.541*	0.631*	0.332	1.669***	0.788	-0.028	0.972***	1.302***
	(0.281)	(0.321)	(0.261)	(0.530)	(0.475)	(0.496)	(0.354)	(0.341)
Lower bound on expropriable holdings	0.347	0.361	0.470*	0.505	0.495	-0.143	0.561	0.773*
	(0.285)	(0.288)	(0.257)	(0.580)	(0.323)	(0.444)	(0.467)	(0.435)
Upper bound on expropriable holdings	0.239***	0.216**	0.141	0.314	0.290*	0.012	0.260**	0.341**
	(0.091)	(0.106)	(0.089)	(0.194)	(0.148)	(0.138)	(0.130)	(0.148)
Placebo: expropriation at 500 ppl/km^2	0.122	-0.101	-0.197	0.054	-0.017	0.729	-0.860*	-1.308
	(0.318)	(0.472)	(0.254)	(0.523)	(0.314)	(0.520)	(0.512)	(1.057)
Number of Districts	191	191	189	80	80	80	114	114
R^2	0.289	0.136	0.435	0.436	0.688	0.453	0.268	0.304

Notes: This table reports estimates from variants of equation (1) using the same standardized outcomes as in Table 3. Agricultural controls include number of males, females, and farms, total irrigated land area, and total dry land area. Vote shares refer to Islamic parties and the Communist Party in the 1955/57 legislative elections. Controls are fully interacted with the $Above400$ dummy and the number of marginal expropriable holdings (MEH). The R^2 reported in the bottom panel corresponds to the baseline specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

A.7.2 RD Robustness Checks

In Tables A.11, A.12, and A.13, we show that our main results are mostly robust to alternative parametrizations of the RD specification. For comparison, the top row of each of these tables reports estimates from the baseline specification in Tables 1, 2, and 3, respectively. We then report the following checks. First, we vary the degree of the polynomial in the running variable (1960 population density) in equation (1). Our main results are robust to alternative polynomials (**linear, quadratic, and quartic**) besides the cubic specification used in the baseline estimates.

Second, we vary the **bandwidth** around the population density cutoff of 400 people/km^2, with bandwidths ranging from 100 to 300. The difference-in-discontinuity estimate remains positive and significant in most of these specifications. At the lower end, we see the limits of the identifying variation afforded by the policy as we are left with too few districts (46 out of 191) to conduct statistically well-powered difference-in-discontinuity regressions with the associated interactions.

Table A.11: *Waqf* Land and *Waqf*-Endowed Institutions: RD Specification Checks

	Waqf Land			*Waqf*-Endowed Institutions		
	hectares	% total	% zoned	mosques	*pesantren*	madrasas
	(1)	(2)	(3)	(4)	(5)	(6)
Baseline specification (Table 1)	0.207**	0.251**	3.286**	2.956***	0.532**	1.024**
	(0.097)	(0.107)	(1.483)	(0.985)	(0.264)	(0.410)
Linear in density	0.155***	0.143***	0.822	0.865	0.223	0.546**
	(0.052)	(0.050)	(1.008)	(0.732)	(0.145)	(0.214)
Quadratic in density	0.109	0.195**	0.230	1.733**	0.305	0.740**
	(0.071)	(0.075)	(1.314)	(0.826)	(0.199)	(0.366)
Quartic in density	0.128	0.155	1.060	2.213**	0.340	0.935**
	(0.078)	(0.099)	(1.205)	(0.922)	(0.286)	(0.376)
Local linear, Bandwidth: 100	0.224*	0.152	2.310	1.262	0.788	0.997**
	(0.113)	(0.159)	(1.635)	(1.394)	(0.590)	(0.429)
Villages	12,304	12,304	12,304	12,089	12,089	12,089
Districts	46	46	46	46	46	46
Local linear, Bandwidth: 200	0.223**	0.182*	1.969**	3.228***	0.742**	1.206***
	(0.090)	(0.104)	(0.970)	(1.092)	(0.343)	(0.428)
Villages	18,917	18,917	18,917	18,406	18,406	18,406
Districts	71	71	71	71	71	71
Local linear, Bandwidth: 300	0.197**	0.277***	0.379	2.308***	0.522*	0.939***
	(0.080)	(0.091)	(1.195)	(0.774)	(0.297)	(0.345)
Villages	24,563	24,563	24,563	23,739	23,739	23,739
Districts	97	97	97	96	96	96
Number of Villages	55200	55200	55200	48978	48978	48978
Number of Districts	191	191	191	189	189	189
Dependent Variable Mean	0.848	0.518	6.127	3.921	0.503	0.787
R^2	0.033	0.005	0.044	0.234	0.165	0.195

Notes: This table reports estimates from variants of equation (1) using the same outcomes as in Table 1. Each row reports results from a different specification. In the second to fourth row, we vary the degree of the polynomial in the running variable (1960 population density) to alternative polynomials (linear, quadratic, and quartic) besides the cubic specification used in the baseline estimates. In subsequent rows, we vary the bandwidth around the 400 people/km^2 cutoff, with bandwidths ranging from 100 to 300. The bottom panel reports regression statistics from the baseline specification. See Section A.7.2 for a detailed description of each specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table A.12: Islamist Party Support: RD Specification Checks

	Village	District Level	
	1999 Top 3 Finish	1999 Vote Share	1999-2014 Avg. Vote Share
	(1)	(2)	(3)
	Islamist Parties		
Baseline specification (Table 2)	0.158*	0.049**	0.044**
	(0.083)	(0.024)	(0.020)
Linear in density	0.114**	0.030**	0.035***
	(0.046)	(0.014)	(0.011)
Quadratic in density	0.099	0.029	0.036**
	(0.065)	(0.018)	(0.014)
Quartic in density	0.179*	0.051**	0.045**
	(0.092)	(0.024)	(0.019)
Local linear, Bandwidth: 100	0.088	0.056	0.054
	(0.143)	(0.049)	(0.037)
Observations	12,304	46	179
Districts	46	46	46
Local linear, Bandwidth: 200	0.143*	0.062**	0.054**
	(0.086)	(0.027)	(0.021)
Observations	18,917	71	277
Districts	71	71	71
Local linear, Bandwidth: 300	0.116	0.039*	0.043**
	(0.073)	(0.023)	(0.018)
Observations	24,563	97	380
Districts	97	97	97
Number of Villages	55200	–	–
Number of Districts	191	189	191
Dependent Variable Mean	0.516	0.136	0.154
R^2	0.051	0.205	0.222

Notes: This table reports estimates from variants of equation (1). Islamist parties are defined as in Table 2. Each row reports results from a different specification. In the second to fourth row, we vary the degree of the polynomial in the running variable (1960 population density) to alternative polynomials (linear, quadratic, and quartic) besides the cubic specification used in the baseline estimates. In subsequent rows, we vary the bandwidth around the 400 people/km^2 cutoff, with bandwidths ranging from 100 to 300. The bottom panel reports regression statistics from the baseline specification. See Section A.7.2 for a detailed description of each specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table A.13: Islamist Capture of Local Governance: RD Specification Checks

	Local Relig. Gov. Officials	*Sharia* Regulations	*Sharia* Banking	Islamic Court Cases re: *Waqf*	Inherit.	Divorce	Islamist Vigilante Activity Incidents	Casualties
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Baseline specification (Table 3)	0.614**	0.600**	0.346	1.153*	0.825**	0.050	0.837**	1.119***
	(0.266)	(0.289)	(0.237)	(0.603)	(0.397)	(0.423)	(0.349)	(0.357)
Linear in density	0.283**	0.269	-0.217	0.516*	0.218	0.012	0.472**	0.480***
	(0.134)	(0.190)	(0.136)	(0.296)	(0.305)	(0.263)	(0.191)	(0.175)
Quadratic in density	0.315*	0.445*	0.066	0.761*	0.548	-0.018	0.513*	0.718**
	(0.179)	(0.228)	(0.172)	(0.432)	(0.501)	(0.342)	(0.269)	(0.291)
Quartic in density	0.165	0.439	-0.087	1.047*	0.665	-0.043	0.481	0.599
	(0.264)	(0.318)	(0.264)	(0.612)	(0.501)	(0.379)	(0.679)	(0.546)
Local linear, Bandwidth: 100	0.478	0.915**	0.228	2.785***	0.531	-0.007	0.815	1.288*
	(0.487)	(0.421)	(0.365)	(0.657)	(0.565)	(0.415)	(0.889)	(0.725)
Districts	46	46	46	22	22	22	33	33
Local linear, Bandwidth: 200	0.555*	0.891**	0.355	1.193	0.684	-0.351	0.679	0.935*
	(0.290)	(0.342)	(0.251)	(0.712)	(0.479)	(0.438)	(0.547)	(0.484)
Districts	71	71	71	37	37	37	47	47
Local linear, Bandwidth: 300	0.235	0.510*	-0.019	0.973	0.664	-0.276	0.519	0.577*
	(0.252)	(0.279)	(0.210)	(0.589)	(0.468)	(0.341)	(0.346)	(0.325)
Districts	97	97	96	47	47	47	62	62
Number of Districts	191	191	189	80	80	80	114	114
R^2	0.289	0.136	0.435	0.436	0.688	0.453	0.268	0.304

Notes: This table reports estimates fron variants of equation (1) using the same standardized outcomes as in Table 3. In the second to fourth row, we vary the degree of the polynomial in the running variable (1960 population density) to alternative polynomials (linear, quadratic, and quartic) besides the cubic specification used in the baseline estimates. In subsequent rows, we vary the bandwidth around the 400 people/km^2 cutoff, with bandwidths ranging from 100 to 300. The bottom panel reports regression statistics from the baseline specification. See Section A.7.2 for a detailed description of each specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

A.7.3 Other Land Reform Policy Cutoffs

In Tables A.14, A.15, and A.16, we probe the role of other cutoffs used in the 1960 land reform. While the core of our analysis focuses on the 400 people/km^2 cutoff, nominally the reform used two other cutoffs at 50 and 250 people/km^2, as discussed in Sections 2.1 and 4.2. We proceed in two ways. First, we estimate a version of equation (1) where we "**pool**" all three cutoffs and each district is matched to the nearest cutoff. The specification takes the following form:

$$\begin{aligned} y_{ij} &= \alpha + \gamma_0 Above_j + \gamma_1 MEH_j + \beta(Above_j \times MEH_j) + \sum_{d=1}^{3} c_j^d + island_j \\ &+ \sum_{d=1}^{3} c_j^d g(\mathbf{density}_j)[\delta_{0d} + \delta_{1d} Above_j + \delta_{2d} MEH_j + \delta_{3d}(Above_j \times MEH_j)] + \varepsilon_{ij} \end{aligned} \tag{A.1}$$

where $c = 1, 2, 3$ is a set of indicators equal to 1 if threshold d is the nearest threshold ($d = 1, 2, 3$ denote the cutoffs at 50, 250, and 400, respectively), and $Above_j$ is equal to 1 if district j is above the population density threshold of the nearest cutoff. In this case, marginal expropriable holdings (MEH) are defined for each cutoff as follows: holdings between 5–9 hectares at the 400 cutoff, holdings between 7.5–12 hectares at the 250 cutoff, and holdings between 10–20 hectares at the 50 cutoff. The difference-in-discontinuity estimate remains positive in all tables, and is statistically significant across most columns of Table A.14 and A.16. However, the fact that considerably less expropriation actually occurred at these lower cutoffs implies that the results delivered in this specification are much more imprecise.

Second, we look for **discontinuities in outcomes** at each cutoff. The specification in this case is:

$$\begin{aligned} y_{ij} &= \alpha + \gamma_0^{50} Above50_j + \gamma_1^{50} MEH50_j + \beta^{50}(Above50_j \times MEH50_j) \\ &+ \gamma_0^{250} Above250_j + \gamma_1^{250} MEH250_j + \beta^{250}(Above250_j \times MEH250_j) \\ &+ \gamma_0^{400} Above400_j + \gamma_1^{400} MEH400_j + \beta^{400}(Above400_j \times MEH400_j) \\ &+ \sum_{d=1}^{3} g(\mathbf{D}_j^d) \; [\delta_{0d} + \delta_{1d} Above\{d\}_j + \delta_{2d} MEH\{d\}_j + \delta_{3d}(Above\{d\}_j \times MEH\{d\}_j)] \\ &+ island_j + \varepsilon_{ij}, \end{aligned} \tag{A.2}$$

where $\mathbf{D}_j^d$ represent the distance to cutoff d for district j and $d = 1, 2, 3$ denote the cutoffs at 50, 250, and 400, respectively. Here, to improve precision we use non-overlapping intervals of MEH at each cutoff, namely 5–9 ha at 400, 9–12 ha at 250, and 12–20 ha at 50 people/km^2. The bottom panel of Tables A.14, A.15, and A.16 reports the corresponding estimates of β^{50}, β^{250}, and β^{400}. These coefficients are jointly significant when looking at land under *waqf* (Table A.14 column 1). Again, the results are less precise than when focusing solely on the 400 cutoff where expropriation intensity was most binding. As discussed in Section 6.2, these patterns are in line with the historical record of policy implementation, which suggests that by the time the land reform was halted in the mid-1960s it had mostly not reached regions of the country where the other cutoffs were most pervasive.

Table A.14: *Waqf* Land and *Waqf*-Endowed Institutions: Other BAL Cutoffs

	Waqf Land			*Waqf*-Endowed Institutions		
	hectares	% total	% zoned	mosques	*pesantren*	madrasas
	(1)	(2)	(3)	(4)	(5)	(6)
Baseline specification (Table 1)	0.207**	0.251**	3.286**	2.956***	0.532**	1.024**
	(0.097)	(0.107)	(1.483)	(0.985)	(0.264)	(0.410)
Pooling all cutoffs	0.174**	0.150***	1.105	1.316**	0.141	0.266
	(0.075)	(0.052)	(1.144)	(0.602)	(0.154)	(0.164)
Expropriation at 50 ppl/km^2	0.102	0.055	2.042	-0.113	0.040	0.049
	(0.126)	(0.044)	(1.976)	(0.457)	(0.078)	(0.107)
Expropriation at 250 ppl/km^2	0.340	0.925	-6.949	-3.733	-0.185	-2.559
	(0.861)	(0.923)	(9.021)	(9.655)	(1.592)	(2.056)
Expropriation at 400 ppl/km^2	0.180**	0.268**	1.118	2.203**	0.376	0.582*
	(0.074)	(0.107)	(0.878)	(0.948)	(0.255)	(0.341)
Number of Villages	55200	55200	55200	48978	48978	48978
Number of Districts	191	191	191	189	189	189
Dependent Variable Mean	0.848	0.518	6.127	3.921	0.503	0.787
R^2	0.033	0.005	0.044	0.234	0.165	0.195

Notes: This table examines the same outcomes as in Table 1. We first report estimates from equation (A.1) where each district is matched to the nearest cutoff. In the bottom panel, we report estimates of β^{50}, β^{250}, and β^{400} from equation (A.2). See Section A.7.3 for a detailed description of each specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table A.15: Islamist Party Support in Legislative Elections: Other BAL Cutoffs

	Village	District Level	
	1999 Top 3 Finish	1999 Vote Share	1999-2014 Avg. Vote Share
	(1)	(2)	(3)
	Islamist Parties		
Baseline specification (Table 2)	0.158*	0.049**	0.044**
	(0.083)	(0.024)	(0.020)
Pooling all cutoffs	0.011	0.025	0.029
	(0.059)	(0.022)	(0.022)
Expropriation at 50 ppl/km^2	-0.095	-0.004	-0.003
	(0.059)	(0.010)	(0.007)
Expropriation at 250 ppl/km^2	-0.322	-0.021	-0.094
	(0.595)	(0.157)	(0.117)
Expropriation at 400 ppl/km^2	0.145	0.056**	0.059**
	(0.103)	(0.028)	(0.028)
Number of Villages	55200	–	–
Number of Districts	191	189	191
Dependent Variable Mean	0.516	0.136	0.154
R^2	0.051	0.205	0.222

Notes: This table examines the same outcomes as in Table 2. We first report estimates from equation (A.1) where each district is matched to the nearest cutoff. In the bottom panel, we report estimates of β^{50}, β^{250}, and β^{400} from equation (A.2). See Section A.7.3 for a detailed description of each specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by 1960 district.

Table A.16: Islamist Capture of Local Governance: Other BAL Cutoffs

	Local Relig. Gov. Officials	*Sharia* Regulations	*Sharia* Banking	Islamic Court Cases re:			Islamist Vigilante Activity	
				Waqf	Inherit.	Divorce	Incidents	Casualties
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Baseline specification (Table 3)	0.614**	0.600**	0.346	1.153*	0.825**	0.050	0.837**	1.119***
	(0.266)	(0.289)	(0.237)	(0.603)	(0.397)	(0.423)	(0.349)	(0.357)
Pooling all cutoffs	0.215	0.073	0.131	0.851	1.066*	0.528	1.025***	1.487***
	(0.182)	(0.238)	(0.180)	(0.680)	(0.554)	(0.444)	(0.315)	(0.213)
Expropriation at 50 ppl/km^2	-0.166	-0.090	-0.053	0.064	0.958	-0.216	-0.353	-0.122
	(0.114)	(0.155)	(0.115)	(1.464)	(1.492)	(0.835)	(0.224)	(0.137)
Expropriation at 250 ppl/km^2	-0.061	-3.630*	-3.109*	4.149	9.017	8.166***	1.477	1.848
	(1.371)	(1.880)	(1.692)	(4.545)	(5.993)	(2.559)	(2.147)	(1.477)
Expropriation at 400 ppl/km^2	0.246	0.675*	0.740*	2.379*	-1.360	-0.358	1.195*	1.589***
	(0.278)	(0.349)	(0.390)	(1.329)	(1.406)	(0.582)	(0.604)	(0.409)
Number of Districts	191	191	189	80	80	80	114	114
R^2	0.289	0.136	0.435	0.436	0.688	0.453	0.268	0.304

Notes: This table examines the same standardized outcomes as in Table 3. All regressions are run at the district level. We first report estimates from equation (A.1) where each district is matched to the nearest cutoff. In the bottom panel, we report estimates of β^{50}, β^{250}, and β^{400} from equation (A.2). See Section A.7.3 for a detailed description of each specification.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

B Data Sources and Construction

We describe here the key variables and data sources used in the paper.

Historic Population Density

We measure historic district-level population density using tabulations from the 1961 Population Census available in island-level hard-bound report, Sensus Penduduk 1961 in the Central Bureau of Statistics (*Badan Pusat Statistik* or BPS) library in Jakarta. The specific table that we use is titled "Sensus Penduduk Republik Indonesia 1961. Angka Sementara Penduduk Indonesia Menurut Jenis Kelamin. Per Daerah Tingkat II." We use ArcGIS to construct the area of historical 1961 districts by amalgamating later districts back to their 1961 boundaries. Using the resulting population density, we classify districts into the four categories discussed in the paper.

Historic Landholdings

We measure the historic landholdings distribution and number of large holders using the 1963 Agricultural Census conducted for the purposes of assessing landholdings in order to implement the stipulated reform. We digitized district-level tabulations available in a report by BPS, Sensus Pertanian 1963, with the table "Number of farms by size of area" ("Banjaknja usaha pertanian rakjat menurut golongan luas tanah"). While the raw data from the Agricultural Census are no longer available, these tabulations provide sufficient granularity to estimate (with noise) the number of large landholders in each district that would be affected by the land reform. For each district, we observe the number of holders with 0.1–0.49 hectares (ha), 0.5–0.99 ha, 1–1.49 ha, 1.5–1.99 ha, 2–2.99 ha, 3–3.99 ha, 4–4.99 ha, and greater than or equal to 5 ha.

As detailed in Section 4.1, assuming that landholdings L follow a Pareto distribution with probability density function $\lambda \underline{L}^{\lambda} L^{-\lambda-1}$, we can estimate the number of landholders in different bins above 5 ha. Given the Pareto formulation, the distribution parameter λ holds over all truncated segments of the distribution. As such, we can use the bins below 5 ha to recover the shape of the distribution above 5 ha where we do not know the number of landholders in each affected size bin subject to redistribution based on the four density cutoffs.

We proceed in two steps. First, we estimate the Pareto shape parameter, λ, for each district using a maximum likelihood procedure for landholdings $L \in [0.1, 5)$ ha. Second, we use $\widehat{\lambda}$ to back out the number of landholders with 5–9 ha, 9–12 ha, 12–20 ha, and > 20 ha, following the stipulated cutoffs. Concretely, we multiply the number N_5 of landholders in the ≥ 5 ha bin by the share of the district's total landholding distribution in the given range based on the Pareto cumulative distribution function (e.g., for 5–9 ha, this is given by $[1 - \left(\frac{5}{9}\right)^{\widehat{\lambda}}] \times N_5$).

Although we are not able to estimate these marginal landholdings separately by wetland and dryland, we are able to control for the total number of farms, total wetland area (ha), and total dryland area (ha) using district-level tabulations elsewhere in the Sensus Pertanian 1963 report under the table titled "Farm area, average size of Farm and Paddy area" ("Luas tanah Pertanian Rakjat dan luas panenan padi").

We measure the post-land reform distribution of landholdings using the 1980 and 1990 Population Censuses as well as the 1985 Intercensal Survey (*Supas*). These are the first three Census/Inter-census rounds that include measures of total landholdings owned by each household. We use the samples available on IPUMS International and estimate the Pareto landholdings dispersion parameter λ, for all

landholdings above 0.1 ha. These estimates are at the district-level, at which the population summary statistics are representative, and hence directly comparable with the tabulations from 1963.

Contemporary Landholdings, Including *Waqf*

We measure contemporary landholdings using the 2003 Agricultural Census. We use this universal census data to estimate Pareto shape parameters, λ, for every village and also to construct a measure capturing the share of all households with greater than 0.1 ha over which λ is estimated. See Bazzi (2017) for details on the data and estimation procedure, which differs from that used for the coarser, binned 1963 Agricultural Census data.

We use the 2003 administrative village census (*Potensi Desa* or *Podes*) to measure the total land area under *waqf* status overall, as a share of total land, and as a share of zoned land.

Contemporary Islamic Institutions

We use the *Podes* 2003 and 2008 data to construct village-level measures of Islamic institutions. The 2003 data include the total number of Islamic schools (*pesantren* and *madrasa*), and the 2008 data disaggregate the two. Both rounds include the number of mosques.

We also draw upon administrative data from the Ministry of Religion to measure (i) the amount of *waqf* land allocated to new mosques and (ii) the number of students enrolled in *pesantren*, both by year and district of establishment. We scrape these administrative data from the web: (i) is from `http://simas.kemenag.go.id/` and (ii) is from `https://ditpdpontren.kemenag.go.id/pbsb/`. The number of *pesantren* established by 1920 is winsorized at the 99th percentile due to data concerns over one district (Jember), where 71% of *pesantren* are implausibly reported as having been established in 1900.

Electoral Outcomes

We draw upon several sources to measure historic and contemporary electoral outcomes.

First, we draw upon district-level vote shares by party from the national legislative elections in 1955, 1999, 2004, 2009, and 2014. These data were graciously shared with us by individuals that worked with Dwight King. Several districts are missing data for the 1955 elections. We therefore supplement the 1955 legislative election data with data from the 1957 district legislative elections that were held in select districts. There are still some historic districts with no voting data from the 1950s, and for these 20 districts, we impute the vote shares for neighboring districts so as to retain the largest possible sample of districts when including this control in robustness checks. We digitize the latter from raw electoral reports obtained from files shared with us by Donald Hindley.

Second, we use the 2003 *Podes*, which records the top 1, 2, and 3 ranked parties at the village-level in the first post-Suharto legislative election held in 1999. Unfortunately, the vote shares themselves are not reported.

We categorize parties based on conventions put forward in the political science literature on Indonesia, including numerous works by Dwight King and R. William Liddle as well as a seminal article by Baswedan (2004) aligning parties in the post-Suharto era along a spectrum of Islamist leanings. In 1955 and 1957, we define Islamist parties as Masyumi, the Indonesian Islamic Union Party (*Partai Serikat Islam Indonesia* or PSII), the Islamic Educators Association (*Perhimpunan Tarbiyah Islamiyah* or Perti), and *Nahdlatul Ulama* (NU). While the first post-Sukarno election in 1971 saw several Islamic parties (NU, PSII, Perti, and the Muslim Party of Indonesia; Masyumi was banned in 1961), thereafter the Suharto regime

allowed only a single Islamic party in the United Development Party (*Partai Persatuan Pembangunan* or PPP).

From 1999 onward, we follow Baswedan (2004) in classifying Islamic parties. We consider as moderate Islamic parties the National Mandate Party (*Partai Amanat Nasional* or PAN) and the National Awakening Party (*Partai Kebangkitan Bangsa* or PKB), both of which initially adopted the national ideology of *Pancasila* prior to the 1999 election when parties were allowed to choose whether or not to embrace this for the first time in the post-Suharto era. The PKB is the successor to a large part of the former NU political wing, which disbanded from the PPP in 1984. The Islamist parties include the PPP, the Prosperous Justice Party (*Partai Keadilan Sejahtera* or PKS), and the Crescent Star Party (*Partai Bulan Bintang* or PBB). All three parties rejected *Pancasila*, including the PPP which was forced to accept *Pancasila* during the Suharto era.

In sum, the PPP, PBB, and PKS can be seen as traditional Islamist parties whereas the PKB and PAN are Islamic albeit inclusive and non-Islamist in their orientation. While the particular leanings of these parties change over time and until today, this rough breakdown lines up with most historical and contemporary accounts by political observers.

There are numerous non-Islamic parties, nearly all of which are secular (except a few tiny Christian parties). We lump all of these parties into the residual, secular category. For a full elaboration, see Appendix A.5.

In 1955/57, we also observe the Communist vote share.

Religious Political Preferences, Piety, and Practice

We use the *Indonesia Family Life Survey* (IFLS) rounds 4–5 in 2007 and 2014/15, respectively, to measure individual-level religious political preferences. These include the following questions: (i) In an election, having a candidate with the same religion as yours makes it [...] to vote for him/her. (... is a 1 to 5 scale ranging from very likely to very unlikely; and (ii) In an election, if the candidates have the same religion as yours, how important is the religiosity of a candidate in influencing your decision to vote for him/her? A more religious candidate make [...] to vote for him/her. (... is the same scale as (iv)). The IFLS also includes questions about tolerance towards other religious faiths living in one's village, neighborhood, house, and family as well as building a house worship nearby. We take the mean of these five questions which range on a 1 to 4 scale from very happy with to very opposed. We also consider two other variables capturing religiosity ("Am I a very a religious person?") and interreligious trust ("Do I trust members of other religious faiths less than those of my own?").

We use rich individual-level survey data from Pepinsky et al. (2018), which is based on a 2008 survey conducted by the authors in which 10 individuals were sampled from each district. The data include numerous questions we use in Tables 4, 5, and A.7. This includes religious political preferences (e.g., how important is the religion and religiosity of the President of Indonesia, support specific *sharia* regulations) as well as a host of questions about Islamic practice (e.g., fasting, paying zakat).

Sharia Regulations

We use data from Buehler (2016), Appendix 1, pp. 215–220 on the number of Sharia regulations adopted by district between 1998 and 2013. We use the total number of regulations, inclusive of legislative and executive branch regulations.

Islamic Microfinance

We use the *Podes* 2017 data to measure the prevalence of Islamic microfinance institutions known as *Baitul Maal wat Tamwil* or BMT. These data are available at the village level. We aggregate to the district level in Table 3 and related robustness tables, in keeping with the unit of analysis for other outcomes in that table.

Legislator Profiles

In Table 4, we consider three measures capturing the religious appeal of legislative candidates in the 2019 election. Thanks to Nicholas Kuipers for scraping and sharing these data from the Indonesian Electoral Commission: http://www.kpu.go.id/. The first measure captures whether the candidate's online campaign statement appeals to Islamic or Islamist themes. These include *umma*, *dawah*, Muslim, Islam, *sharia*, and jihad. The second measure captures whether the candidate's official name listed on the ballot includes an honorific title (*Haji* or simply *H*) signaling their prior Hajj pilgrimage to Mecca. The third measure captures whether the candidate's official name listed on the ballot includes an honorific title signaling their status as a relgiious scholar (*Kyai* or *Kyai Haji* or simply *KH*).

Islamic Courts

We scrape data from web portals for every district-level Islamic court that reports such information online through the Religious Courts Information System (SIPP). A complete list of these portals is available upon request. The data, which vary in years of coverage, include date of filing and type of case.

Islamist Vigilante Activity

We capture the number of incidents and casualties due to violent activities by the Islamic Defenders Front (FPI) using data from the National Violence Monitoring System (or SNPK by its Indonesian acronym). The event-based data include a textual description of the underlying media report, and we search for terms related to the FPI. We include counts over the entire period the data are available, beginning in 1998 through 2014. The SNPK do not cover all regions of the country and hence the more limited sample size for this analysis.

Local Religious Bureaucracy

We digitized tabulations of the number of different types of bureaucrats working in the district-level Ministry of Religious Affairs in 2018. These come from "Dalam Angka" reports available in pdf on the Ministry of Religious Affairs website.

Historic Demographics

We use the Sensus Penduduk 1961 report noted above to control for the total number of men and women in each district as of 1960 before the land reform. We use the 1971 Population Census to construct age-specific male-to-female sex ratios. The data come from IPUMS International, and we use the population weights to go from the sample constructed by IPUMS to the historic district-level total male and female population. We also construct district population growth between 1961 and 1971 using this data.

We also use the 1930 Population Census to measure the number of ethnic Arab and Chinese in each historic district. These data come from digitizing 1930 Population Census tabulations from Dutch archives.

Islamic Holy Sites

We use Google maps to identify the latitude/longitude of holy sites for the nine "saints" of Indonesian Islam in Java known as *Wali Songo* (the "nine saints" in the Javanese language). These nine men are credited with being the vanguard for the advance of Islamic across Java historically. We then compute the great circle distance of each village to the nearest holy site.

Islamist Insurgency in the 1950s

We use the book by van Dijk (1981) on the Darul Islam rebellion to hand-code measures of the Islamist rebellion that took place across Indonesia in the 1950s. We construct indicators for whether any violence took place in a given district.

Contemporary Demographics

We use the universal coverage 2000 Population Census to capture mean years of schooling and the share with different levels of education.

Contemporary Agricultural Production, Development, and Public Goods

We use the triennial *Podes* to construct several village-level proxies for development and public goods. Using the 2003 round, we construct the price-weighted agricultural output and total agricultural productivity (with price weights coming the FAO, see Bazzi et al. (2016) for details). We also measure the total number of capital machines for farming in each village in 2003. We construct an index of locally provided health and infrastructure public goods using all six *Podes* rounds from 1999 to 2014. The infrastructure index is based on that used in Martinez-Bravo (2017). Following Henderson et al. (2012), we capture a summary measure development based on the share of the village with any nightlights as observed from NOAA satellites in 2000.

Geographic Controls

We use the *Podes* 2003 data to construct the following geographic controls: indicators for whether the village is located on a hill or on a beach, the altitude in meters, and the distance to subdistrict and district capitals in kilometers.