THE INSTITUTIONAL FOUNDATIONS OF RELIGIOUS POLITICS: EVIDENCE FROM INDONESIA*

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This article 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 of the transfers 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. *JEL* Codes: D72, D74, P16, P26, Z12.

I. 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 in 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

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application to the present-day social and political world" (Euben and Zaman 2009, 4). Yet one finds substantial variation in religious politics within Islam (Cammett and Luong 2014) and 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, Dittmar, and Yuchtman 2018) and Muslim societies (Kuran 2011; Rubin 2011). Islamic practices such as pilgrimage (Clingingsmith, Khwaja, and Kremer 2009) and fasting (Campante and Yanagizawa-Drott 2015) are known to affect socioeconomic well-being.[1] Others have studied how religion mediates institutional change (Chaney 2013; Belloc, Drago, and Galbiati 2016; 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, Appleby, and Sivan 2003; Habermas 2008). This article 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 that 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

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

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. Although 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 the entrenchment of Islamism by providing conservative forces with the capital needed to proselytize Islamist ideas and actions and mobilize their followers against the secular state.

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 exhibit more pervasive *waqf* land and institutions endowed as such today, including mosques and Islamic schools. In affected districts, these endowments arise in the 1960s and 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 groups.[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 to 1998 actively promoted Islamic culture and piety while aggressively suppressing its political organization. The democratic transition brought an opportunity to capitalize on the Islamist

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.

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 data sets 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 with fewer than 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 versus 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 pretrends in *waqf* endowments in the years leading up to the land reform. Moreover, as detailed in Section VI.B, 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 BAL and its abrupt halt in the

mid-1960s (see Section II.C), 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 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 a 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 the 1960s. First, we rule out alternative pathways related to changes in land inequality, general public goods provision, and anticommunist 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* affect 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 and steady stream of revenue for the organizations that operate them. Unlike moderate Islamic movements that are backed by large nongovernmental 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 are often key conduits for Islamist ideas and action (McVey 1983; Van Bruinessen 1995, 2008).[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 swaths 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 they are 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 article 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

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 IV.A 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.

4. Like other governments across the Muslim world, Indonesia 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 expand historically (Michalopoulos, Naghavi, and Prarolo 2016).

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 protection against state expropriation (see Section III.A). 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, this article 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 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 policy making.[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 evidence that radical leaders in India have used temples to cultivate Hindu nationalism.[7]

6. In the United States, 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.

I.A. Related Literature

Our article contributes new insights to the political economy literature on religion. In a survey of this literature, Iyer (2016) notes an important puzzle: the persistence of religion despite the array of secular forces that militate against it. Our findings suggest that the durability of religious 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]

This article also adds to a wider social science literature on the rise of Islamism (Berman 2011; Blaydes and Linzer 2011; Pepinsky, Liddle, and Mujani 2012; Fourati, Gratton, and Grosjean 2019). Binzel and Carvalho (2017) argue that the rise of Islamic piety in Egypt is rooted in unmet aspirations that come with greater education but limited prospects for upward mobility. Increased religiosity in this case helps people cope with unfulfilled aspirations, which can permanently boost religious participation in society by building up the capacity of religious organizations. While our study documents a rise in Islamism rather than religiosity per se, there are similarities between Egypt's policy changes in the 1980s and the BAL, which both inadvertently caused a permanent increase in religious capacity. In related work, Roháč (2013) hypothesizes that voters support Islamists not because of piety but because they offer a credible commitment to provide public goods. Our finding that public goods are not systematically different in districts with greater expropriation intensity, despite greater prevalence of *waqf*, suggests that religious capacity built through the *waqf* system affects religious politics directly through political mobilization, independent from this reciprocity-based mechanism.[9] Finally,

8. Our findings also relate to Heldring, Robinson, and Vollmer (2017), who link the dissolution of religiously owned monastery lands in fifteenth-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 swaths of territory it did in historical England or elsewhere in Muslim world (see Kuran 2011).

9. 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.

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 mobilize around elections and key policy issues, and (iii) by cultivating future political leaders (see Section V.D). 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., Wickham 2002, 2013; Lacroix 2011).

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 Iannaccone 1998; Chen and Hungerman 2014; Carvalho, Iyer, and Rubin 2018). 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.

The article proceeds as follows. Sections II and III provide relevant background on the land reform and the *waqf*, respectively. Section IV describes our data and empirical strategy. Section V presents our main results, and Section VI addresses alternative explanations and robustness checks. Section VII concludes.

II. 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 BAL of 1960.

II.A. 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 60% of households were landless (Soemardjan 1962). Postindependence, President Sukarno and his supporters tried to do away with the old colonial laws governing agriculture and 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 September 24, 1960, and a subsequent law (no. 56) introduced on December 28, 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 IV, stipulated that districts with more than 400 people/km^2 could have maximum holdings of 5 (6) ha of wetland (dryland), districts with 251–400 people/km^2 could have maximum holdings of 7.5 (9) ha of wetland (dryland), districts with 51–250 people/km^2 could have maximum holdings of 10 (12) ha of wetland (dryland), and districts with less than or equal to 50 people/km^2 could have maximum holdings of 15 (20) ha of wetland (dryland). A later law (no. 224), introduced on September 12, 1961, stipulated the arguably unfavorable terms of indemnification for expropriable lands.[10]

10. The fair price was set at 10 times the assessed annual profits from the land for the first 5 ha and 9 times for the next 5 ha increments with 7 times for any remaining land. The government was to deposit 10% of the payment in a public bank with the remainder in promissory notes that could be redeemed one year

II.B. 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 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 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 III.A). 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.

II.C. 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

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 three months and receive no indemnification. See Huizer (1972) for further details.

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*.

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 contradictions in the BAL fatally undermined its ability to reallocate land (Lucas and Warren 2013). By 1965, only 70,420 out of the targeted 178,000 ha (40%) had been redistributed in Phase I regions, and a mere 12,904 out of 247,570 ha (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, 360). Utrecht (1969) details the process by which the land reform stalled and was eventually undone by the late 1960s as most expropriated landowners took back their properties. This was not the case for religious lands

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 sharecroppers 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."

held in *waqf* because 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.

III. 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.

III.A. 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). 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 that yield annual profits. Endowing a *waqf* is therefore a pious

deed 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* historically stymied innovation and growth across the Middle East. 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, 445), 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.

III.B. Usage of the Waqf in Indonesia

Although the *waqf* institution reached Indonesia in the 1500s, the Dutch colonial administration did not legally recognize it 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 (Bussons de Janssens 1951; Abbasi 2012). The creation of new *waqf* gathered pace during the twentieth 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, 36). 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.

III.C. 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 III.A, lands registered under this status would be immune from expropriation, in addition to conferring reputational benefits on 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, 131), and perhaps the "most formidable obstruction to land reform came from the religious organisations" (Utrecht 1969, 84).[15] We explain how this happened in practice along with some prominent examples.

First, the legal context discussed in Section II.B 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

15. 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, Koehler-Derrick, and Marx 2018), we provide a discussion of the numbers in this study.

declared his *waqf* and given it to a signed person, even without any legal documents" (Jahar 2005, 135). With the support of religious authorities, a landowner could 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 (1966, 36–37) recounts a case 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 ha 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 V.

The Gontor case also illustrates the important historical role of *waqf* lands in supporting brick-and-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, 53):

> 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 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 V speak to these divergent institutional trajectories.

IV. Empirical Framework

This section describes our main data sources and identification strategy.

IV.A. Data: Expropriation Intensity, Islamic Institutions, and Islamism

We draw on 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 V. Online Appendix Table A.1 reports summary statistics and data

sources, and Online Appendix B provides more complete details on our data construction.

1. 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 historic districts, which are the level at which the policy varies and hence are 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 ha, as well as the total number of holdings above 5 ha. Holdings above 5 ha represent 4% of total holdings in the average district.

Our interest lies in marginal expropriable holdings (MEH). At the 400 people/km^2 cutoff, these include holdings between 5 and 9 ha (5–7.5 ha for irrigated land, and 6–9 ha for dry land).[16] Holdings below 9 ha were not expropriable in districts below the 400 cutoff. However, any holdings above 9 ha would have been confiscated in all districts above the next lowest threshold of population density at 250 people/km^2. In this sense the 5–9 ha holdings are marginal to the 400 cutoff. Analogous marginal bins apply at other cutoffs (see robustness checks in Section VI.B).

Because the exact distribution of holdings above 5 ha 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

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

Pareto distribution over landholdings and estimate the shape parameter separately for each district (see Online 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 mismeasures marginal holdings, this should bias our estimates toward 0 so long as this measurement error is not systematically correlated with proclivities for Islamism.[17]

Nevertheless, in Online 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.

2. Islamic Institutions. Our data on Islamic institutions come from several sources. First, we measure the amount and fraction of land under *waqf* in the 2003 Village Potential (Podes) administrative census.[18] These data are based on surveying village government leaders combined with official village records. In 2003, 66% of villages have some land under *waqf*, and the average village has 3.4 ha of *waqf*, with *waqf* parcels covering 6.1% of zoned land.

17. Ideally, we would have data on the distribution of landholdings before the announcement of land reform aims in 1959. Although such data is not available, the Pareto estimating procedure will capture the leading sources of cross-sectional variation in large holdings as long as there is not significant misreporting at the cutoffs. We find no indication of pervasive bunching below the 5 ha 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 ha should exceed the number of landholders with farms of 4–4.99 ha. Violations of this pattern could point to misreporting of holdings above 5 ha as just below 5 ha 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.

18. 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 was not yet part of Indonesia.

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 V.A).

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 toward producing 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).[19] Madrasa are more akin to public day schools in their pedagogical methods, but they require two to four times more religious content in subjects such as Islamic theology and law. Although 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 and their ability to opt out of the government-mandated curriculum.[20]

3. Electoral Support for Islamist Parties. We draw on two main data sources to measure electoral outcomes. First, we use

19. Geertz (1956, 145) 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."

20. Pohl (2006, 398) 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."

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 V.B, the National Awakening Party (PKB, moderate Islamic) won 12.6% of the vote, and the United Development Party (PPP, Islamist) won 10.7%.[21] Other Islamist parties like the 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 data set with voting outcomes below the district level in the 1999 election.

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.[22] 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.

4. 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

21. 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 long-standing PPP and as a vehicle for organizing votes among those long affiliated with the Nahdlatul Ulama movement originating in East Java. Section V.B provides more details on these party and organizational distinctions.

22. Several districts are missing data for the 1955 elections. We 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.

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.

IV.B. Identification

To identify the effects of the land reform, we use a difference-in-discontinuity design analogous to Grembi, Nannicini, and Troiano (2016). Our specification leverages both discontinuous variation in the anticipated intensity of the reform and cross-sectional variation in the number of MEH as defined already. 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 ha 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 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 and 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 and 9 ha (MEH). Although our baseline specification focuses on the maximum threshold of 400 people/km^2, robustness checks in Section VI.B 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 II.C. The initial government plan was to implement the land reform in two phases. Under Phase I, 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 2 under 50 people/km^2. Under Phase II, the reform was to proceed to the sparsely populated Outer Islands, where only two districts had a density over 250 people/km^2, and where

publicity about the reform and state capacity for implementing it were 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:

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

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.[23] The main coefficient of interest is β, the coefficient on expropriation intensity, that is, 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, $\mathbf{X}_{ij}$, 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.[24]

1. Illustration of Identification Strategy. Figure I illustrates the intuition behind our identification strategy. Panel 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

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

24. 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 Online Appendix Table A.4.

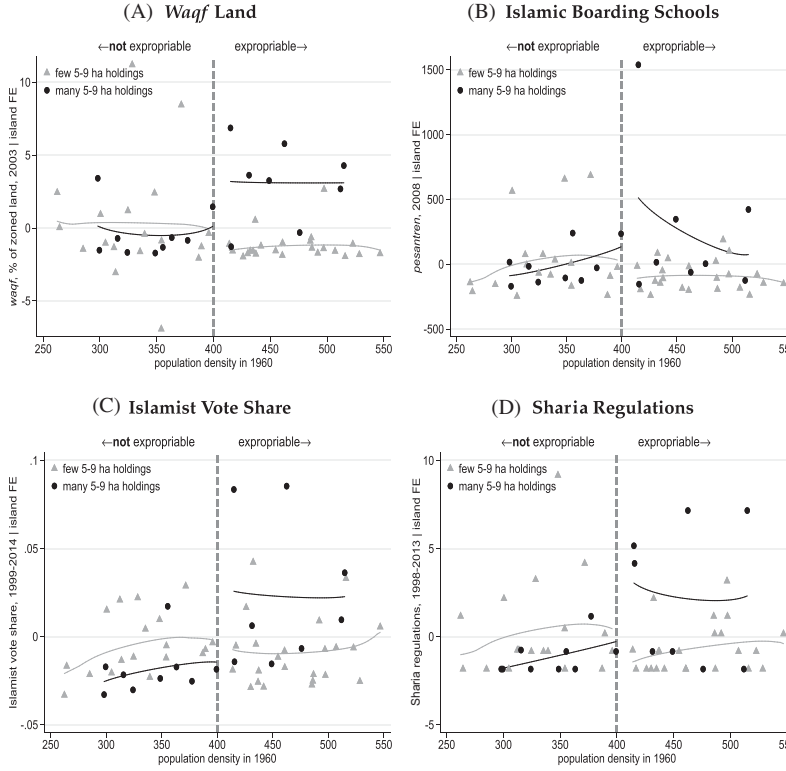

FIGURE I

Illustration of the Difference-in-Discontinuity Design: Contemporary *Waqf* and Islamism

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.

holdings above the median (black circles) and below the median (gray triangles).[25] 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, 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 panels reveal similar patterns for a few other important contemporary outcomes: (b) *pesantren*, (c) Islamist vote share, and (d) sharia regulations.

Figure I 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 preexisting number of exposed landholders. The only holdings that would have been expropriated above 400 people/km^2 but not below are holdings between 5 and 9 ha.

25. 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 populated districts of the Outer Islands, nearly all of which fall below 250 people/km^2.

The difference-in-discontinuity estimates the differential response of landowners whose holdings would have been expropriated above the cutoff but not below.

2. Identification Checks. Several results support the main identifying assumption, 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 VI.B. First, we find no evidence of manipulation of the running variable, population density in 1960, based on the McCrary (2008) test (Online Appendix Figure A.3). Second, the number of 5–9 ha landholdings, MEH, is continuous across the 400 cutoff (Online Appendix Figure A.2), which additionally provides evidence against misreporting of expropriable land in the 1963 Agricultural Census (see note 18).

Importantly, there are no systematic difference-in-discontinuities for leading confounders (Online 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.[26] In Section V.A, we discuss additional evidence consistent with a lack of pretrends in *waqf* endowments before the 1960s (see Figure II). Online 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. Together, these checks bolster the case that equation (1) identifies causal reduced-form effects of expropriation intensity prescribed by the BAL.

26. Two out of 26 variables in Online 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 Online Appendix Tables A.8–A.10.

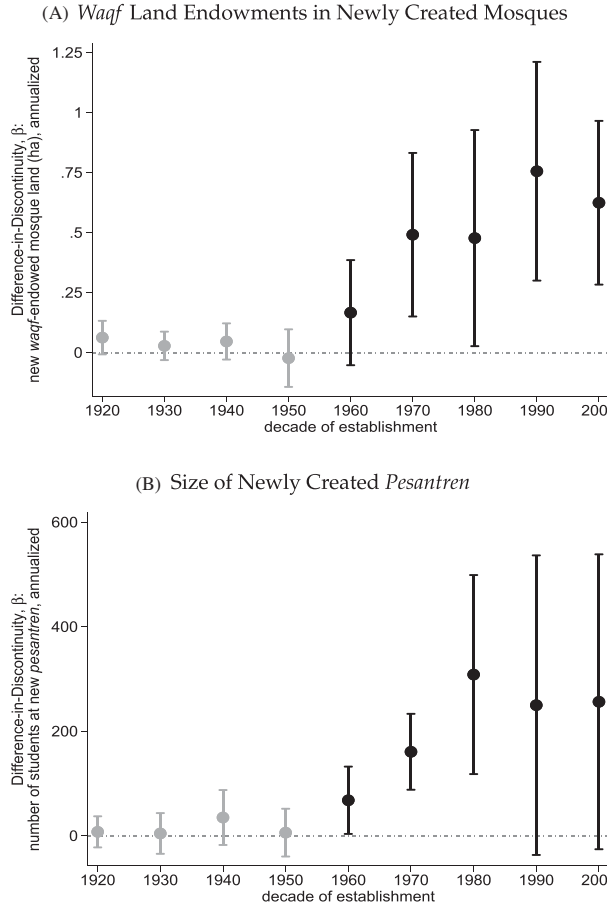

FIGURE II

Timing of *Waqf* Endowments

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 (Panel A) the amount of *waqf* land allocated to newly established mosques, and (Panel 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 Panel 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 .010. The corresponding p-value for Panel B is .093. See Online Appendix Table A.3 for regression output based on pooling all pre- and post-1960 years rather than decade-specific event studies.

IV.C. Isolating the Long-Term Effects of Waqf

Although 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 OLS and IV:

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

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 V.E. Of course, as with any IV, the exclusion restriction is subject to caveats. For example, expropriation intensity under the BAL could have led to violent conflict, which itself might have had lasting effects on support for Islamism. We aim to rule out this and other alternative pathways in Section VI.A but ultimately prioritize the reduced-form estimates of equation (1) in most of the results that follow.

V. Results

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

TABLE I

CONTEMPORARY *Waqf* LAND AND *Waqf*-ENDOWED INSTITUTIONS

	Waqf land			*Waqf*-endowed institutions		
	Hectares (1)	% Total (2)	% Zoned (3)	Mosques (4)	*Pesantren* (5)	Madrasas (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 (inverse-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 1 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 ha. 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) because 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)**. * $p < .1$, ** $p < .05$, *** $p < .01$. Robust standard errors clustered by 1960 district.

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 next section.

V.A. Effects on Waqf and Endowed Institutions

Table I 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, that is, the interaction of *Above*400 and *MEH* in equation (1); all other terms in that equation are included in the regression, but their output is 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.

1. Land under Waqf. Table I, columns (1)–(3) consider *waqf* land in hectares (inverse-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.

2. Mosques and Islamic Schools. In Table I, columns (4)–(6) we report effects of the land reform on mosques, *pesantren*, and madrasa at the village level in 2008.[27] Because *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.

Although 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 III.C 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

27. 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.

Prosperous Justice Party. Finally, some *pesantren* maintain their own militias, which are used for agitation and mobilization around elections (Buehler 2016). In Sections V.B–V.D, we revisit these mechanisms because they help clarify some of the later outcomes of the *waqf* transfers.

3. Robustness Checks. In Online Appendix Table A.8, we show that the results in Table I 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 subdistrict 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 pre-date the reform. All controls are interacted with the *Above*400 dummy and the number of *MEH*. Reassuringly, our key findings are not sensitive to the inclusion of these controls.

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 Online 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 and 9 ha (which are estimated) in our main specification.[28]

Online 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

28. 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. In particular, 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.

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.

4. Timing of Waqf Endowments. Figure II and Online 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 data set from 1920 to 2009.[29] 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. Figure II, Panel A 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 pretrends in *waqf* endowments, as seen in the flat difference-in-discontinuity estimate (β) around 0 from 1920 to 1959. Note that this is not due to a lack of institutional growth during this period (see Online 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 Online Appendix Table A.3, we compare estimates of β across the pre- and postreform period and find a statistically significant increase between the 1950s and 1960s.

29. 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 this should not introduce biases (in our favor). First, differential survival between high and low expropriation intensity districts should work against finding the flat pretrends that we do in Figure II. Second, if there is differential survival after 1960 (and this explains the patterns in Figure II), 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.

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 worshipers, allowing these institutions to expand. Second, land donations 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. Although 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 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.[30] 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 II suggests that the land reform led to a resource windfall for Islamic institutions, putting heavily affected 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.

30. Both of the *pesantren* discussed in Section III.C 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).

TABLE II
ISLAMIST PARTY SUPPORT IN LEGISLATIVE ELECTIONS

	Village	District level	
	1999 Top-three finish (1)	1999 Vote share (2)	1999–2014 Vote share (3)
Panel A: Islamist parties			
Expropriation intensity	0.158*	0.049**	0.044**
	(0.083)	(0.024)	(0.020)
Number of villages	55,200	—	—
Number of districts	191	189	191
Dependent variable mean	0.516	0.136	0.154
R^2	0.051	0.205	0.222
Panel B: Moderate Islamic parties			
Expropriation intensity	−0.129	−0.024	−0.008
	(0.083)	(0.037)	(0.023)
Number of villages	55,200	—	—
Number of districts	191	189	191
Dependent variable mean	0.468	0.170	0.152
R^2	0.204	0.387	0.339
Panel 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	191
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 three 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 stacked into a single pooled regression with year fixed effects (column (3)). Panel A 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 Panel B, 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. Panel C looks at effects on support for all other, secular parties, including the Indonesian Party of Struggle (PDI-P) and the Golkar Party. See Online 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 I for additional details on the specification and Online Appendix Table A.1 for summary statistics. *$p < .1$, **$p < .05$, ***$p < .01$. Robust standard errors are clustered by 1960 district.

V.B. Effects on Electoral Support for Islamism

We show in Table II 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 because 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.

1. Party Classification. We look at measures of electoral support for three groups of political parties: (a) Islamist, (b) moderate Islamic, and (c) secular parties. Table II, Panel A 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 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 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 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 II. First, Islamist politicians routinely agitate for sharia law while PKB and PAN explicitly reject such efforts.[31] Second, moderate parties are closely affiliated with the two largest and long-standing Muslim nongovernmental organizations in

31. In 2002, for example, Hamzah Haz, former leader of PPP and vice president of Indonesia from 2001 to 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.

Indonesia (Muhammadiyah for PAN and Nahdlatul Ulama or NU for PKB).[32] 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.

2. Islamist Party Support, 1999–2014. In Table II, column (1), the dependent variable is an indicator for whether the given party family was represented among the top three 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 prereform 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 .003). This suggests that the effect on Islamist vote shares marks a shift in political preferences and not merely a continuation of prereform regional sorting across party lines.[33]

In Online Appendix Table A.9, we report the same set of robustness checks as those implemented earlier for the outcomes in Table I (see Section V.A for a detailed description). We focus on voting for Islamist parties (PPP, PKS, and PBB) for these checks.

32. 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 2016).

33. The Islamist parties in the 1950s include Masyumi, NU, Perti, and PSII (see Online 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 Table II, column (3) (p-value of .031).

The point estimates and standard errors increase in some specifications but decrease in others. Overall, 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*. Online Appendix Table 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 already. 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 toward Islamist parties. This initially took the form of support for the PPP and over time shifted to PKS and PBB (see Online 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 V.D 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 and the supply of political leaders. We take a closer look at these mechanisms in the following sections.

V.C. Islamism and Local Governance

In Table III, 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

TABLE III

ISLAMISM AND LOCAL GOVERNANCE

	Local relig. gov. officials (1)	Sharia regulations (2)	Sharia microfinance (3)	Islamic Court cases re: *Waqf* (4)	Islamic Court cases re: Inherit. (5)	Islamic Court cases re: Marital (6)	Islamist vigilante activity: Incidents (7)	Islamist vigilante activity: Casualties (8)
Expropriation intensity	0.614**	0.600**	0.346	1.153*	0.825**	0.045	0.837**	1.119***
	(0.266)	(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	0.289	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 and 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 data set (see text for details). See the notes to Table I for additional details on the specification and Online Appendix Table A.1 for summary statistics. $^{*}p < .1$, $^{**}p < .05$, $^{***}p < .01$. Robust standard errors.

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 III are standardized, and we report the sample mean of each variable in Online Appendix 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.[34]

1. Religious Bureaucracy. The first outcome we consider in Table III, column (1) 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 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. In other words, a larger

34. 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.

share of local government resources is dedicated to the management of religious affairs.[35]

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.

2. Sharia Regulations. In Table III, column (2) 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 std. dev. increase in regulations—approximately doubling such regulations off a mean of 1.7. The data on sharia regulations, compiled by Buehler (2016), include both laws adopted by local parliaments and decrees adopted by district mayors (*bupatis*). There are 399 regulations in total spanning 176 contemporary districts. 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, "Restoring Peace and Order Based on Moral Teachings, Religion, Ethics, and Local Cultural Values." This sweeping regulation facilitated several policy changes, including a Quran reading skills requirement for entry into public primary schools (Buehler 2016, 147–48). Another interesting example comes from Maros district in South Sulawesi, where an incumbent mayor from the secular Golkar Party had close ties to

35. 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.

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 and requirements to pray and give *zakat* (Buehler 2016, 166–67). While anecdotes abound, a common theme is the central role of mosques and religious schools in coordinating the Islamist movement.

3. 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 of interest and compatible with Islamic teachings" (Kuran 2018, 1307). 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 Table III, column (3). The dependent variable 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 this falls short of statistical significance at conventional levels (some robustness checks in Online Appendix Table A.10 indicate more precise estimates).

4. Islamic Courts. The next columns of Table III look at the activity of Islamic courts.[36] Although 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

36. 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 Online Appendix B). However, expropriation intensity does not predict missingness. Regressing a dummy for any available Islamic courts data yields a coefficient of −0.090 (0.160).

under the BAL have more land under *waqf* (Table I) 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 often 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 in column (5) and marital cases in 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 III 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.

5. Islamist Vigilantes. The last two columns of Table III 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 Violence Monitoring System.[37] 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

37. The underlying event-based data come from hundreds of media sources (see Online 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 missingness.

places, FPI has strong roots in local *pesantren* networks, including Miftahul Huda (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 III, this is one of the several ways affected districts experience a deeper reach of Islam into society and public affairs.

In Online Appendix 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.

V.D. 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 more 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.

1. Demand for Religious Politics. In Table IV, Panel A 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 them in column (1), and whether a candidate's religiosity makes it very likely to vote for them in 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, Liddle, and Mujani (2018) in 2008:[38] whether respondents deem the religion (column (3)) and the religiosity (column (4)) of the president of Indonesia very important. In columns (5) and (6), we examine two measures

38. Neither the IFLS nor Pepinsky, Liddle, and Mujani (2018) survey cover all districts in our study. However, the coverage is not systematically correlated with expropriation intensity.

TABLE IV

DEMAND FOR AND SUPPLY OF RELIGIOUS POLITICS

	Panel A: Demand: Survey responses					
Data source:	IFLS survey		Pepinsky et al. survey			
Outcome:	*candidate [. . .] very impt. in determining vote*		Muslim president very impt.	Religiosity president very impt.	Sharia law: Support objective	Sharia law: Support subjective
	Religion (1)	Religiosity (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	0.659	0.769	0.429	0.600
R^2	0.084	0.076	0.052	0.035	0.087	0.082

TABLE IV
(CONTINUED)

	Panel 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) and (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, Liddle, and Mujani (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 V). 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 I for additional details on the specification. $^{*}p < .1$, $^{**}p < .05$, $^{***}p < .01$. Robust standard errors are clustered by 1960 district.

of support for the adoption of sharia law: an index of support for specific dimensions of sharia[39] 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.

2. Supply of Religious Politicians. Along with these demand-side differences, we identify complementary supply-side changes. Mosques and religious schools borne out of the *waqf* endowments during the land reform surely went on to influence multiple generations of Islamic leaders, some of whom may have been inclined to enter local politics. Table IV, Panel B sheds light on this channel using original data on legislator profiles in 2019.[40] We consider the number of candidates mentioning Islam- and sharia-related terms in their campaign platform in column (7), candidates indicating in their listed name that they accomplished the Hajj pilgrimage to Mecca in column (8), and Islamic scholars running as candidates in column (9).[41] 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)). Although we cannot trace these candidates to specific

39. 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.

40. Thanks to Nicholas Kuipers for scraping these data from the Indonesian Electoral Commission, http://www.kpu.go.id/.

41. The outcome in Panel B, column (1) is based on a search for the following terms: *umma*, *dawah*, Muslim, Islam, sharia, jihad.

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.

3. Political Preferences versus Piety. Expropriation intensity had strong effects on beliefs about the role of Islam in public life, but in Table V, 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 nonpolitical religious beliefs and preferences. We find null effects on the following outcomes from the IFLS: a dummy for being a Muslim (column (1)),[42] self-reported religiosity (column (2)), and relative trust toward co-Muslims and non-Muslims (column (3)). From the Pepinsky, Liddle, and Mujani (2018) data, we look at individuals who self-report as Muslim (column (4)), pray five times a day (column (5)), fast during Ramadan (column (6)), read the Quran (column (7)), always attend Friday prayer (column (8)), recite nonmandatory 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.

Although 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 nonreligious politicians in settings as diverse as Brazil, Italy, 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

42. 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).

TABLE V

ISLAMIC PIETY AND 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	0.903	0.688	0.822	0.276	0.236	0.180	0.259	0.831	0.446
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, Liddle, and Mujani (2018) data, we look at individuals who self-report as Muslim (column (4)), individuals who report praying five times a day (column (5)), fasting during Ramadan (column (6)), reading the Quran (column (7)), always attending Friday prayer (column (8)), attending nonmandatory Sunnah prayers (column (9)), being part of a prayer group (column (10)), and paying *zakat* (column (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 I for additional details on the specification. * $p < .1$, ** $p < .05$, *** $p < .01$. Robust standard errors are clustered by 1960 district.

underlying triggers. We provide further evidence in Online Appendix Table A.7, which examines individual-level votes from the Pepinsky, Liddle, and Mujani (2018) survey. To be sure, more devout Muslims—proxied by the piety index in Table V, column (12)—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.

V.E. 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 VI and VII, 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 I–III. 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 0.

1. Political Outcomes. Table VI 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*

TABLE VI

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)
Panel 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
Panel 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]	[.003]	[.045]	[.013]	[.057]	[.017]	[.095]	[.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	.040	.040	.040	.038	.016	.010	.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), *Above* 400 × *MEH*, as an instrument for *waqf* land (inverse-hyperbolic-sine transformed as in column (1) of Table I). 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 I: the number of mosques (column (1)), Islamic boarding schools (*pesantren*, column (2)), and Islamic nonboarding schools (madrasa, column (3)) observed at the village level in 2008. Columns (4)–(5) look at outcomes from Table II: an indicator for whether Islamist parties finished in the top three 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 III: the log number of local government employees dedicated to managing religious affairs (column (6)), and the number of sharia regulations adopted in the district between 1998 and 2013 (column (7)). The null of the underidentification test is that the equation is underidentified. The weak-instrument robust p-value is based on the Anderson-Rubin test. See the notes to Table I for additional details on the specification. $^{*}p < .1$, $^{**}p < .05$, $^{***}p < .01$. Robust standard errors.

TABLE VII

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)
Panel 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	0.044	0.021	0.658
Panel 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	47,249	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
R^2	0.053	0.159	0.044	0.020	0.657
Panel 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]	[.008]	[.058]	[.015]	[.049]	[.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
First-stage effective F stat	6.4	6.4	6.4	6.4	4.5
Underidentification test, p-value	.012	.012	.012	.012	.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 VI. 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 (inverse-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. The null of the underidentification test is that the equation is underidentified. The weak-instrument robust p-value is based on the Anderson-Rubin test. See the notes to Table I for additional details on the specification. $^{*}p < .1$, $^{**}p < .05$, $^{***}p < .01$. Robust standard errors are clustered by 1960 district.

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 Table VI, columns (4)–(5), 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, Table VI, columns (6) and (7) 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 in

column (6) and the number of sharia regulations adopted in the district in 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 and 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 significant 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. Because the IV isolates the effects of *waqf* endowments created during the 1960s (as discussed in Section IV.C), 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 because they faced less repression historically.

2. 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 twentieth-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 III.B). 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 VII shows that the land reform adversely affected village-level agricultural productivity via its impact on *waqf*.[43] 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.[44] Given the well-known inefficiencies of sharecropping (Marshall 1890; Burchardi et al. 2018), the *waqf* could have inhibited alternative, productivity-enhancing tenancy arrangements. Third, the *waqf* may limit the scope for reinvestment and future growth given that much of the revenue is allocated toward 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 Table VII, column (5), 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

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

44. In the Gontor example (Section III.C), 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).

measure of nonagricultural income.[45] Although 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 result 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 VI.A.

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 effects. 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 took up 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 because it could undermine their authority over laborers on that land.

V.F. 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.

45. The sample size falls because of mismatches between villages in Podes 2003 and those in the shapefiles underlying the light intensity data. Restricting columns (1)–(4) to those with nonmissing light intensity leaves the results unchanged.

Instead, we view the results 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 IV 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 mechanism is in line with the qualitative literature on Islamist politics in Indonesia, some of which was cited throughout the results.

VI. 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 more robustness checks, including an examination of the other expropriation cutoffs at 50 and 250 people/km^2.

VI.A. 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.

1. 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). Table VIII, columns (1), (3), and (5) show that expropriation intensity did not substantially affect the change in the number of holdings above 5 ha from 1963 to 1980, 1985, and 1990, respectively.[46] Columns (2), (4), and (6) report analogous tests using district-level estimates of the Pareto dispersion parameter (λ) over the same time horizons. The results

46. These postreform 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.

TABLE VIII

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+ ha holdings and land dispersion (λ) between 1963 and 1980 (columns (1) and (2)), 1963 and 1985 (columns (3) and (4)), and 1963 and 1990 (columns (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)) and 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 0 and standard deviation 1. See the notes to Table I for additional details on the specification. $^{*}p < .1$, $^{**}p < .05$, $^{***}p < .01$. Robust standard errors.

suggest that expropriation intensity did not reduce inequality in the countryside in the first few decades after the reform.[47]

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 after 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, there are two forces that work against the reductions in inequality that might come from large holders transferring surplus land to religious authorities. First, note that in most cases, the surplus land simply changed hands without being broken up into small parcels, which would have happened had this land been expropriated by the state. Second, many large holders may have transferred surplus land to a few religious institutions in their communities, which might have increased land concentration.

2. Demographic Changes from the 1965–66 Mass Violence. Another concern is that the massacre of suspected communists may have tracked the land reform. Although the data limitations concerning this episode of potential genocide are well known (Cribb 1990), we explore this possibility in Table VIII, columns (7)–(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 and 1971 (column (7)), and changes in male-to-female sex ratios between 1961 and 1971 (column (8)).

Expropriation intensity does not significantly correlate with these proxies for mass violence.[48] This has two implications for our

47. 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.

48. 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.

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 V. 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 III.C: 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 maintain a strong and persistent ideological opposition to any potential resurgence of communism in Indonesia.

3. 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 IX: 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.

VI.B. Further Robustness Checks

Before concluding, we discuss several robustness checks on the outcomes in Tables I–III. Recall from Section V that our

TABLE IX

ALTERNATIVE EXPLANATIONS (II): SCHOOLING AND PUBLIC GOODS

	INPRES schools (1)	Mean yrs. schooling (2)	Population share with ... school			Public goods index	
			Primary (3)	Junior sec. (4)	Senior sec. (5)	Health (6)	Infrastructure (7)
Expropriation intensity	−0.018	−0.030	−0.027	−0.003	0.007	0.005	−0.012
	(0.260)	(0.259)	(0.017)	(0.008)	(0.008)	(0.015)	(0.029)
Number of villages	–	46,147	46,628	46,628	46,628	41,437	41,437
Number of districts	191	188	190	190	190	187	187
Dep. var. mean	2.233	4.676	0.372	0.123	0.092	0.392	0.497
R^2	0.289	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 to 1978 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 0 to 1, capturing the presence of health public goods including doctors, midwives, and health clinics (column (6)) and infrastructure public goods including four-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 I for additional details on the specification. $^{*}p < .1$, $^{**}p < .05$, $^{***}p < .01$. Robust standard errors are clustered by 1960 district.

results are robust to a range of alternative specifications and controls in Online Appendix Tables A.8–A.10. This section describes additional checks, all of which are elaborated in Online Appendix A.7.

Online 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 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 as illustrating not the fragility of our findings but the limits of the available identifying variation from the historical policy.

1. Other Population Density Cutoffs. Online 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 IIA and IVB. 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 and 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, MEH are defined for each cutoff following the BAL schedule: holdings between 5–9 ha at the

400 cutoff, 7.5–12 ha at the 250 cutoff, and 10–20 ha at the 50 cutoff. The difference-in-discontinuity estimate remains positive in all tables and is statistically significant in many columns of Online 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 a 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 Online Appendix Tables A.14–A.16 reports the corresponding estimates of β^{50}, β^{250}, and β^{400}.[49]

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 Online 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 Inner Islands of Java, Bali, and NTB where 400 was practically the only relevant cutoff, as we discuss in Section II.C. Under Phase II, redistribution effort was slated to expand to the more sparsely populated Outer Islands. However, by the time efforts got under way in this second stage, the turmoil of the mid-1960s and Suharto's seizure of power had already led to a scaling back and eventual halt to 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.

VII. Conclusion

This article provides causal evidence of the effects of Islamic institutions on religious politics and the spread of Islamism in

49. See Online Appendix Section A.7 for a detailed description of this specification.

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 but 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 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 effect that specific institutions have in shaping political activism by religious actors and organizations. Much as 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 and other parts of the developing world.

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SUPPLEMENTARY MATERIAL

An Online Appendix for this article can be found at *The Quarterly Journal of Economics* online. Data and code replicating tables and figures in this article can be found in Bazzi, Koehler-Derrick, and Marx (2019), in the Harvard Dataverse, doi:10.7910/DVN/OY4SM9.

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