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ISLAM AND THE STATE:
RELIGIOUS EDUCATION IN THE AGE OF MASS SCHOOLING

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Islam and the State: Religious Education in the Age of Mass Schooling
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ABSTRACT

Public schooling systems are an essential feature of modern states. These systems often developed at the expense of religious schools, which undertook the bulk of education historically and still cater to large student populations worldwide. This paper examines how Indonesia's long-standing Islamic school system responded to the construction of 61,000 public elementary schools in the mid-1970s. The policy was designed in part to foster nation building and to curb religious influence in society. We are the first to study the market response to these ideological objectives. Using novel data on Islamic school construction and curriculum, we identify both short-run effects on exposed cohorts as well as dynamic, long-run effects on education markets. While primary enrollment shifted towards state schools, religious education increased on net as Islamic secondary schools absorbed the increased demand for continued education. The Islamic sector not only entered new markets to compete with the state but also increased religious curriculum at newly created schools. Our results suggest that the Islamic sector response increased religiosity at the expense of a secular national identity. Overall, this ideological competition in education undermined the nation-building impacts of mass schooling.

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1 Introduction

The provision of education is one of the central missions of modern states. Yet, mass public schooling is a recent historical phenomenon. For centuries, religious organizations dominated education markets across Europe, the Middle East, and elsewhere. In many countries, states overturned this dominance through secularization policies with notable examples in the Ferry Laws in France or Kemalist reforms in Turkey. In other countries, religious schools still cater to a substantial share of the student population. Across these settings, little is known about how competition between state and religious schools shapes identity and nation building (Alesina et al., 2019).

Understanding this process is of central importance in countries with a strong private or religious education sector. A large literature studies school choice and public–private competition in the U.S. and developing countries.[1] Other work examines the link between schooling and ideology (e.g., Bandiera et al., 2019; Cantoni et al., 2017). We study the competitive response to state expansion in education markets and show how school competition affects cultural change.

This paper explores the consequences of mass public schooling for identity and nation building in the world's largest Muslim country. We show that Islamic schools counteracted the secularizing impacts of mass schooling. Indonesia provides a rich context for understanding how religious schools endure in modernizing states. Millions of Indonesians were educated in religious institutions historically, and around one-fifth of students attended Islamic schools in 2019 (see Table 1). Yet, in the 1970s, the country underwent a uniquely ambitious expansion of its public schooling system through the celebrated *Sekolah Dasar* (SD) Presidential Instruction (INPRES). This policy oversaw the construction of more than 61,000 elementary schools—many of them in areas where Islamic institutions long played an important role.

Beginning with Duflo (2001), a large literature has studied the impacts of SD INPRES on human capital and development. However, the policy also entailed political objectives in the wake of turmoil in the 1960s that saw the demise of the Communist movement and the growing strength of Islamic institutions. Rooted in the Suharto regime's hostility towards organized Islam, SD INPRES was designed to foster nation building and to curb religious influence in society (Boland, 1982). Mass public schooling would hasten the transition to a single national curriculum and render Islamic schools irrelevant. We study how the religious sector adapted and responded to this effort.

Our analysis identifies short-term effects of the policy on exposed cohorts as well as dynamic, long-term effects on education markets with varying INPRES school construction in the 1970s. Several novel data sources allow us to explore, for the first time, how the policy shaped multiple dimensions of schooling content. These data include nationally-representative surveys capturing Islamic education as well as administrative records on the universe of schools with date and location of establishment. The latter record nearly 220,000 secular and 80,000 Islamic schools. This allows us to characterize the evolution of demand- and supply-side responses over the ensuing 40 years. For some schools, we also observe a breakdown of curriculum hours in 2019, allowing us to quantify the religious content of subject matter and to measure long-run differences in ideological differentiation.

[1] See, for example, Dinerstein and Smith (2019) and Hoxby (1994) on the U.S. and Andrabi et al. (2017), Bau (2019) and Muralidharan and Sundararaman (2015) on developing countries.

Our results on religious schooling can be summarized as follows. As expected, SD INPRES decreased attendance in primary Islamic day schools (*madrasa*) in the short run. At the same time, religious schools absorbed some of the increased demand for secondary schooling that resulted from mass primary schooling. As many as three-quarters of Islamic junior secondary school students originated in public primary schools. Ultimately, this demand effect *increased* the likelihood that INPRES-exposed cohorts would complete any Islamic education. In other words, SD INPRES increased not only years of schooling—as identified in prior work—but also exposure to Islamic education, which was arguably contrary to the regime's objective. Moreover, this demand for Islamic schooling persists into the next generation as the exposed cohorts' children are also more likely to have attended Islamic schools.

These school choices are shaped by the Islamic sector response. Overall, Islamic school construction increased in districts with greater SD INPRES intensity. In the short-run, secondary *madrasa* entered to capitalize on growing demand for continued schooling among graduates from INPRES elementary schools. We observe this strategic entry within local education markets that operate below the district level. Secondary *madrasa* continue to enter high-INPRES markets differentially over the ensuing decades. While elementary *madrasa* did not enter immediately to compete with nearby INPRES schools, they begin do so systematically around the mid-1980s. A simple Stackelberg competition framework provides intuition for this more surprising result. Strategic complementarities between the two education systems led the Islamic sector to increase its supply of schools in response to SD INPRES. As a result, the state expansion in education markets failed to crowd out Islamic schools.[2]

In addition to the quantity response, Islamic schools entering high-INPRES districts after the program provide greater curriculum differentiation at the primary and junior secondary level. We measure differentiation based on classroom hours devoted to Islamic subjects, e.g., Islamic law (*fiqh*), theology (*aqidah*), and ethics (*akhlaq*), as well as Arabic instruction. The increase in Islamic content comes at the expense of subjects emphasized in the standard curriculum, including study of the national language and *Pancasila*, the secular ideology of the state. Such differentiation may have been welfare-enhancing to the extent that variation in Islamic content addressed heterogeneity in preferences for different types of schooling. Overall, though, the quantity and ideological responses of the Islamic sector counteracted the state's efforts to homogenize and secularize education.

These results open a new window into the celebrated SD INPRES program and show how the ideological effects of mass schooling depend on the response of non-state schools. We establish the plausibility of the parallel trends assumption not only for years of schooling as in Duflo (2001) but also for religious schooling completion rates at all instruction levels, and for establishments of new Islamic schools. Although the state may have targeted SD INPRES towards districts with a greater density of Islamic schools, it did not target on the basis of differential trends in Islamic school construction or demand for

[2]Several potential mechanisms underlie these strategic complementarities. First, transitions between secular and religious schools are common. In the Indonesian Family Life Survey (IFLS), 31% of students continuing after Islamic primary attend secular junior secondary, and 48% of students continuing after Islamic junior secondary attend secular senior secondary. Second, many secondary *madrasa* are built in the same physical location as primary *madrasa* to take advantage of lower costs and increased demand. Thus, secondary *madrasa* construction correlate positively with primary *madrasa* construction. Finally, elementary *madrasa* may have been more attractive than INPRES elementary schools for conservative families that remained reluctant to send their daughters to secular schools (see Section 5).

religious schooling prior to the 1970s. While these patterns lend themselves to a causal interpretation, we are careful to note that the long-run effects capture a complex set of responses that unfold well after the 1970s policy shock. Like with any difference-in-difference, the farther one moves from the intervention period, the less compelling the causal inference. Nevertheless, given that mass schooling programs like SD INPRES occur at critical junctures of development, the dynamics we identify may actually reflect trajectories that would not have otherwise emerged absent the program.

While the state also expanded secondary schools after SD INPRES, it was not able to counteract the Islamic sector's ability to capture new primary school graduates.[3] There are at least two explanations for this differential response. On the state side, an adverse budgetary shock in the early 1980s due to steeply declining oil revenue led to major cutbacks in development spending, including on education. The regime may also have prioritized primary school expansion because it believed that ideological indoctrination was best realized at that level. Meanwhile, the Islamic sector was able to leverage its major charitable institution, known as the *waqf*, to build up capital endowments necessary to expand educational infrastructure (see Bazzi et al., 2020). This protected revenue stream, built on private charity, helps Islamic organizations compete with the state in the education sector across the Muslim world. We show that the Islamic school supply response was, in fact, stronger in districts with a larger *waqf* base prior to SD INPRES.

Using a combination of electoral, census, and survey data, we further characterize the legacy of SD INPRES for identity and nation building. Overall, the policy did not shore up support for the Suharto regime, and it did not increase attachment to standard markers of Indonesian identity. Strikingly, SD INPRES did not benefit Suharto's political party, *Golkar*, in the 1977 and 1982 elections, nor after 1987 when affected cohorts began to vote. Instead, Islamic parties, the main opposition, gained in the immediate aftermath of the policy in districts with greater INPRES intensity, consistent with backlash against the secularizing advance of the state. In the long run, school-age exposure to SD INPRES did not increase support for *Pancasila* or use of the national language. Among politicians competing in the 2019 elections, exposed cohorts are significantly less likely to campaign on nation-building themes, as proxied by references to *Pancasila* and related Indonesian concepts.

These political and ideological effects are associated with long-term shifts in identity. Perhaps as a result of greater exposure to religious education, INPRES cohorts report greater engagement with Islam, suggesting that religious identity may have crowded out affinity with the secular Indonesian nation. Not only are these cohorts more likely to be literate in the Arabic language, a core part of the curriculum in Islamic schools, but they also exhibit greater piety measured across a range of Islamic practices. Ultimately, the fact that exposure to SD INPRES increased religiosity without increasing attachment to the national identity suggests that the policy may have fallen short of its ideological objectives.[4] The multifaceted response of the Islamic sector offers a plausible explanation for this surprising result.

[3] In practice, the Islamic sector is comprised of schools run by large Islamic foundations or organizations (such as *Muhammadiyah* and *Nahdlatul Ulama*) as well as independent establishments funded through their own autonomous *waqf* endowments. We do not distinguish between these two types of schools, but note that the existence of large institutional actors implies some degree of coordination within the otherwise decentralized Islamic school system.

[4] It is possible that the policy objective was to depoliticize religion. In this regard, SD INPRES may have been more effective insomuch as exposed cohorts are no more likely to support a stronger role for *Sharia* law in the long run (see Section 7.3).

What explains the resilience of the Islamic education sector against multiple attempts by the secular state to suppress it? The legal and institutional protections available to religious schools might have played a key role in Indonesia as they did elsewhere in the Muslim world (Kuran, 2018). Islamic schools are typically endowed in *waqf*, which not only generate substantial economic resources but also confer upon these institutions a status of inalienability. Assets held in *waqf* allowed the Islamic sector to actively respond to Suharto's mass schooling effort. Historically, Catholic schools in Europe did not benefit from such protections, which may have contributed to their relative demise. The same political regimes that implemented sweeping secularization reforms in education were also careful to strip the Church of its physical assets. Thus, the resilience of a dual education system in many Muslim countries may be rooted in their dual legal systems, where the coexistence of Islamic and common law provides religious actors with legal recourse to fight back against secular nation-building policies.

Related Literature. There is growing evidence on the crucial role of education policy in nation building.[5] Some studies show that education fosters civic engagement, e.g., in the U.S. (Dee, 2004) and Nigeria (Larreguy and Marshall, 2017). Many show that education weakens religiosity (e.g., Glaeser and Sacerdote, 2008; Hungerman, 2014; Mocan and Pogorelova, 2017), while others show that mass schooling led to the decline of church attendance in historical Germany (Becker et al., 2017) and to lower piety in contemporary Turkey (Gulesci and Meyersson, 2016). Our paper is among the first to link mass schooling to greater religiosity, at the expense of secular nation-building objectives.

Our key innovation lies in understanding how the state's historical competitor in education provision—religious organizations—responded to mass schooling. Two recent studies explore the effects of education reforms in France and Turkey. Squicciarini (2019) shows how the Catholic Church, through investments in religious schools, slowed down the diffusion of technical knowledge in 19th century France. Sakalli (2019) shows that religious families in Turkey pushed back against state efforts at secularization by removing their children from public schools. In contrast, we investigate competition between Islam and the state after one of the largest school expansion programs ever implemented. Ultimately, the Islamic sector response contributed to the program's limited impacts on nation building.

Prior work on SD INPRES has not explored the Islamic sector response or the program's nation-building consequences. Recent work by Akresh et al. (2018) and Mazumder et al. (2019) identify the long-term and intergenerational effects on similar outcomes as Duflo (2001), while Ashraf et al. (2020) show that the policy had large effects on education for women from ethnic groups with a bride price tradition. Meanwhile, Martinez-Bravo (2017), Roth and Sumarto (2015), and Rohner and Saia (2019) study the impacts on governance, intergroup tolerance, and conflict, respectively. While these studies also show how education affects political economy outcomes, we explore how religion and politics shape educational outcomes and, in turn, the long-term consequences of mass schooling. Our findings offer insight into the general equilibrium effects of education policy in societies with a strong religious schooling sector. With the benefit of new data, we demonstrate how the endogenous response of the Islamic

[5] Alesina et al. (2019) describe the historical experiences of European states and provide a theoretical model that formalizes the role of mass schooling. Cantoni et al. (2017) study how a curriculum reform affected political attitudes in China. Bandiera et al. (2019) link the rise of public schooling to immigration in the U.S. Other related work can be found across the social sciences with leading examples in political science (Ansell and Lindvall, 2013; Paglayan, 2017, 2018) and sociology (Meyer et al., 1979).

sector works against the homogenizing effects of mass schooling.

These insights also advance the literature on religious schooling. The education literature in the U.S. has explored the returns to Catholic schooling (Altonji et al., 2005; Neal, 1997) and modeled religious school choice as a function of religious group shares in society (Cohen-Zada, 2006). Andrabi et al. (2006) and Berman and Stepanyan (2004) provide descriptive background on Islamic schooling in Pakistan and a range of Muslim countries, respectively. Few studies in this literature distinguish between private and religious schools, which often have distinct objectives. Our unique data allows us to identify the multiple margins along which Islamic schools compete.

2 Background: Islam and Education in Indonesia

Indonesia's longstanding dual education system reflects the enduring role of religious schools in a country home to more than 225 million Muslims. This section provides background on religious schools, education policy, school curricula, and the SD INPRES program.

2.1 Typology of Islamic Schools

Indonesia's education system is comprised of secular and religious schools. Secular education is provided by public as well as private schools—76% of secular schools are public, but 90% are at the primary level and only 50% at the senior secondary level. Secular schools fall under the regulatory authority of the Ministry of Education and Culture (*Kemdikbud* or MEC) since the 1970s (see Section 2.2). Parallel to secular schools, various institutions offer teachings based on Islam at the primary and secondary level. For much of Indonesian history, these schools played a major role in the transmission of human capital and culture. There are two types of Islamic schools: *madrasa* and *pesantren*.

Madrasa are day schools that use pedagogical methods similar to secular schools but offer substantially more religious content in their curriculum (see Section 2.3). There is an exact correspondence between education levels in the *madrasa* system and the secular system. Elementary *madrasa* (*Madrasah Ibtidaiyah* or MI) correspond to public elementary schools (*Sekolah Dasar* or SD), while junior secondary *madrasa* (*Madrasah Tsanawiyah* or MTs) and senior secondary *madrasa* (*Madrasah Aliyah* or MA) are the Islamic counterparts to junior (*Sekolah Menengah Pertama* or SMP) and senior (*Sekolah Menengah Atas* or SMA) secondary schools, respectively. Outside this nomenclature, other schools known as *Madrasa Diniyah* exclusively teach Islamic subjects. These institutions often operate as afternoon schools and are analogous to Bible study in the U.S.

Pesantren are boarding schools devoted to the study of Islam. Similar to Christian seminaries, many *pesantren* are geared towards producing religious scholars. Most *pesantren* operate self-sustaining economic activities endowed in *waqf*. According to Pohl (2006), *pesantren* "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" (p.398). Compared to *madrasa*, *pesantren* tend to have more religious instruction, less regulatory oversight, and a more politically active orientation (see Bazzi et al., 2020).

2.2 SD INPRES and the Origins of the Dual System

The literature provides rich background on the SD INPRES program. Here, we provide additional details on the historical context of state efforts to confront Islamic schools.

Origins of the Dual System. At independence, amidst a wider debate about the place of Islam in Indonesia's constitution, the state established a secular education system. Religious schools were placed under the purview of the Ministry of Religious Affairs (*Kemenag* or MORA), which gradually sought to extend its influence over *madrasa*. For example, in 1958 a major reform effort known as *Madrasah Wajib Belajar* aimed to limit religious instruction time to 21–28% of study hours. The reform failed as Islamic leaders opposed restrictions on religious instruction (Zuhdi, 2006). Throughout the 1950s and 1960s, "the strong commitment of the Muslim community to having their own education system ... made it impossible for the government to replace Islamic schools with non-religious schools" (Zuhdi, 2006, p.75).

In the early years of Suharto's New Order regime, nation building became a central priority. At first, Islamic leaders were part of this effort, having helped defeat Communist forces during the political upheaval of the mid-1960s. As testament to this alliance, the government made 2–4 hours of religious instruction compulsory in public schools in 1967. However, the regime stance towards Islamic education rapidly changed as it embraced an overarching policy of suppressing political Islam (Boland, 1982). This manifested in the decision to force four existing Islamic political organizations into the single umbrella United Development Party (*Partai Persatuan Pembangunan* or PPP) in 1973.

***Sekolah Dasar* (SD) INPRES.** It is in this context that the government launched SD INPRES. Equipped with windfall oil revenues from the early 1970s, the Suharto regime prioritized development spending. This included a large allocation for primary school construction to meet the new compulsory requirement introduced in 1973. The Presidential Instruction No. 10/1973 and subsequent yearly decrees specified the funding allocated to each district as a function of the child population not enrolled in school. Each school package funded the construction of a primary school for grades 1–6 with six classrooms. In total, up to 61,000 schools were constructed between 1973–80 under the program, with each district receiving anywhere between 16 and 824 new elementary (SD) schools.[6] The school expansion program was accompanied by mass hires of teachers and the removal of primary school fees in 1977.

The expansion of the state school system entailed both developmental and political objectives. SD INPRES aimed at secularizing and homogenizing primary education. Civic education was to supplant certain Islamic subjects, while instruction was to take place in the national language, *Bahasa* Indonesia, rather than the local ethnic languages or Arabic. The goal was to build a citizenry steeped in the inclusive *Pancasila* ideology and invested in the national identity. A World Bank (1989) report notes that "... public education was viewed by the Government as a key medium for promoting national unity and

[6]The Presidential Decrees for 1973–74 (INPRES 10/1973 and 6/1974), 1975–76 (6/1975 and 3/1976), 1977–78 (3/1977 and 6/1978) and 1979–80 (12/1979 and 6/1980) authorized grants for 6,000, 10,000, 15,000, and 14,000 new schools, respectively. The total of these appears closer to the figure of 45,874 INPRES schools appearing in 1980 village-level administrative data known as *Podes*. In Tables A.4 and A.5, we show that the program's impacts on years of schooling and religious schooling are robust to using this alternative measure of INPRES intensity (as in Martinez-Bravo, 2017).

national values—first, through instruction in *Pancasila*, and next through instruction in the national language, *Bahasa* Indonesia" (p. 14), and that "[i]n so large and dispersed a country . . . policymakers have consistently looked to neighborhood primary schools as vehicles for national integration" (p. 35).

Parallel to the school expansion program, a 1972 decree stipulated that all formal education must be administered by the Ministry of Education. In the context of the regime's growing hostility towards political Islam, this was interpreted as an attack on the status and independence of Islamic schools:

> "While there was no clear statement concerning the status of the Islamic schools . . . Muslim leaders interpreted that the Presidential Decree was intended, among other things, to weaken the status of the Islamic educational institutions. Since the decree did not specifically clarify the status of Islamic educational institutions, they assumed that the government was trying to eliminate these latter through the application of a so-called *pendidikan satu atap* ("single roof education") policy." (Zuhdi, 2006, p.89)

The reform was strongly opposed by Muslim leaders and ultimately abandoned as part of a compromise between MEC and MORA. In 1975, the government recognized the special status of Islamic education, allowing *madrasa* to remain under MORA authority. One year later, many *madrasa* rejected a proposed new curriculum involving a 30–70 split across religious and non-religious instruction time. Others chose to augment the regular school day with after hours Islamic education.

Aftermath. Subsequent reforms in 1984 and 1989 provided further recognition to Islamic school graduates on par with their secular school counterparts. Ultimately, though, the reform left the dual system in place. In 2019, Islamic schools remained under the MORA, which monitors quality and curriculum for the 92% of *madrasa* that are private, and also administers a smaller number of public *madrasa*.[7]

2.3 Curriculum Differences Between Secular and Islamic Schools

Islamic schools teach a range of religious subject matter that is not covered in secular schools. There are five core subjects: Islamic law (*fiqh*), Islamic doctrine and ethics (*aqidah* and *akhlaq*), Qur'an and traditions of Prophet Muhammad (*hadith*), Arabic language, and history of the Prophets (*qisa al-anbiya*). Zuhdi (2006) provides illustrative examples of curriculum timetables in elementary *madrasa*, *pesantren*, and public elementary schools in the 1950s. Grade 6 students in the latter spent a total of 2 hours per week in religious education, whereas those in Islamic schools spent anywhere from 25 to 40 percent of instruction time on religious subjects.

Sharp patterns of curriculum differentiation can also be seen in contemporary data. Secular public schools largely adhere to 2 hours of religious instruction per week. Meanwhile, data described in the next section show that *madrasa* devote 26% of instruction hours to religious content on average with more hours at higher grade levels. There is considerable variation across *madrasa* (standard deviation of 6%) but a roughly equal breakdown in hours across the five subjects above, including Arabic. At the same time, only 5% of instruction is devoted to *Pancasila* and Civic Education (referred to by its Indonesian acronym PPKN) and an additional 5% to the study of Indonesian language and literature.

[7] The country's nearly 4,000 public *madrasa* originate out of a central government initiative in the late 1950s to take over Islamic schools run by provincial governments. In 1967, MORA invited all private *madrasa* to become state-run and gain access to additional funding. This effort mostly fell flat as most Islamic schools opted to remain private.

This large gap between hours devoted to Islamic content versus *Pancasila* and the national language distinguishes student experiences in Islamic versus secular schools.

3 Data

We draw upon several new data sources that allow for the first systematic analysis of how SD INPRES affected education markets over the short- and long-run. We combine survey data on Islamic education with administrative data on Islamic school construction to shed new light on both the demand- and the supply-side response to the policy. With data on school curriculum, we characterize different margins of adjustment to mass schooling efforts by the state. Additional data sources help understand how the policy shaped identity and nation building over the long run.

Survey Data on Schooling. We measure Islamic school completion and other measures of education status using six rounds of the National Socioeconomic Survey (*Susenas*), collected between 2012–2018. The *Supas* 1995 intercensal survey data used by Duflo (2001) did not include information on Islamic education. While *Susenas* has reported breakdowns of *madrasa* and secular education since the late 1990s, the 2012 round was the first to include information on birthplace, which is needed to identify childhood exposure to SD INPRES. Additionally, we can link (co-resident) children's educational attainment to their parents' exposure to SD INPRES in the 1970s.

One limitation of *Susenas* is that it only records the type (Islamic vs. secular) of school for the final level of attainment and hence misses potentially informative patterns of switching across Islamic and secular schools throughout one's educational life. We revisit this issue in Section 5, where we also draw upon the Indonesia Family Life Survey (IFLS) to provide insight into transitions between Islamic and secular schools. The IFLS is a rich longitudinal survey spanning 1993 to 2014, but it is limited in geographic scope, which often leaves analyses of policies with district-level variation like SD INPRES statistically underpowered. Table 1 reports estimates of exposure to Islamic education in the IFLS, *Susenas*, and administrative records. Together, these sources point to a sizable Islamic education sector.

School Registries. We use newly compiled administrative data from MORA containing information on the universe of *madrasa* and *pesantren* (see Appendix C for details). In total, there are 52,398 formal *madrasa*, 82,871 *madrasa diniyah* (informal Qur'an study schools), and 25,938 *pesantren* active in 2019 with establishment dates spanning more than 100 years. Roughly one-third of Islamic school students are enrolled in *pesantren* and two-thirds in formal *madrasa*, according to national enrollment records (column 5 of Table 1). *Madrasa* are further subdivided into three levels of instruction: elementary or MI (25,533 schools), junior secondary or MTs (18,101 schools), and senior secondary or MA (8,764 schools). We rely on an analogous registry of secular schools maintained by the MEC (and known by its Indonesian acronym, *Dapodik*). These data comprise 219,145 schools and include date of establishment, grade level, and private/public status. We address potential concerns about survival bias in these registries using a triennial administrative census of villages (known as *Podes*) beginning in 1980.

Each of these school registries includes details on the location of establishment. Most of our analysis focuses on the district because (i) this is the level at which the SD INPRES policy rule varies, and (ii) analyzing school choice using *Susenas* is only feasible at this level. However, we also explore Islam–state competition at the village and subdistrict level when examining the supply-side response to SD INPRES.

While *pesantren* may constitute an important part of the Islamic sector response to SD INPRES, they are more difficult to study than *madrasa*. The *Susenas* data do not distinguish *pesantren* from other types of education. Nor does the MORA registry clarify the level at which a given *pesantren* organizes its instruction; many, in fact, teach students of all ages under one roof. Moreover, *pesantren* do not follow the national exams or provide public information on their course offerings. Despite these data limitations, a vast qualitative literature suggests that the majority of *pesantren* are sharply differentiated from state schools on curriculum and other dimensions of learning.

School Curriculum. We study curriculum using an online registry of schools, called *Sistem Informasi Aplikasi Pendidikan* (SIAP). This database includes detailed breakdowns of *madrasa* curriculum with hour-by-hour subject timetables each week. While the data cover a selected subset of Islamic schools (nearly 20% of *madrasa*), secular schools do not yet report timetables to SIAP. These timetables provide a unique window into the learning environment at Islamic schools. Our main interest lies in time allocated to (i) Islamic subjects, including Arabic language and literature, (ii) *Pancasila*/civic education, and (iii) Indonesian language and literature.

Downstream Outcomes. We explore political impacts beginning with electoral returns for the state party of the Suharto regime, *Golkar*, and the Islamic opposition beginning in 1971, the last election prior to SD INPRES. We examine the ideology of legislative candidates in the 2019 election using text from online campaign documents. These include appeals to the faith (e.g., Islam, Muslim, *umma*, *sharia*) and references to *Pancasila* and related Indonesian nation-building concepts.[8]

We also construct linguistic proxies for religious and national identity. *Susenas* 2012–2018 reports Arabic literacy. The complete-count 2010 Population Census reports whether the national language, *Bahasa* Indonesia, is the main language spoken at home. This is distinct from speaking ability: nearly 90% of Indonesians are able to speak the national language, but only 20% use it as the main language inside the home. We view Indonesian use at home as a measure of national affinity, reflecting greater attachment to national as opposed to ethnic or religious identity (see Bazzi et al., 2019, for validation).

Finally, we measure Islamic piety and preferences using a nationally-representative survey conducted in 2008 by Pepinsky et al. (2018), who sample 10 individuals from each contemporary district. The survey captures a host of Islamic practices (e.g., fasting, paying *zakat*) and political preferences (e.g., support for *sharia* law). It also provides a measure of support for *Pancasila*.[9]

[8]The following are examples of nation-building appeals in candidate platforms: "[ensuring the] life of the democratic and just nation according to *Pancasila* and the 1945 constitution," and "defending and maintaining *Pancasila* ideology and the existence of the unity of the Republic of Indonesia". See Appendix C for further details.

[9]We use district of residence instead of district of birth in both the legislative candidate data and the Pepinsky et al. (2018) survey since district of birth is not recorded.

4 Empirical Strategy

This section elaborates our approach to identifying the individual- and school-level responses to SD INPRES. We defer identification checks to the results sections that follow.

4.1 Religious School Attendance and Downstream Outcomes

First, we identify effects of the SD INPRES school expansion program on religious schooling using the standard difference-in-differences specification from Duflo (2001):

$$y_{ijt} = \alpha + \beta(INPRES_j \times young_{it}) + (\mathbf{X}_j'\mathbf{\Omega}_t)'\mathbf{\Theta} + \mu_j + \delta_t + \varepsilon_{ijt}, \tag{1}$$

where i, j, t denote individual, district of birth, and year of birth; $INPRES_j$ measures elementary public schools constructed per 1,000 children from 1973 to 1978; $young_{it} = 1$ for individuals aged 2–6 in 1974; μ_j and δ_t are district and cohort fixed effects, respectively; and $\mathbf{X}_j'\mathbf{\Omega}_t$ captures cohort effects interacted with the district's children population, school enrollment, and exposure to a large governmental water and sanitation program, all in 1971.[10] Like Duflo (2001), we compare individuals aged 2–6 (exposed cohorts) with those aged 12–17 (comparison cohorts) in 1974. This specification identifies short-term effects for directly exposed cohorts. In a second specification, we aim to capture longer-term effects by comparing cohorts aged 6 or less (exposed) with cohorts aged 12 or more in 1974 (comparison). This captures longer-term effects, inclusive of the market response to SD INPRES. In both specifications, we exclude partially exposed cohorts, aged 7–11 in 1974, as in Duflo (2001). We also trace out the response over time by estimating cohort-specific β.

Our interest lies in how SD INPRES shaped Islamic school choice. At the primary level, the expansion of the public sector should have pushed students away from elementary *madrasa*, the closest substitute in the religious sector. That is, we expect a negative effect of INPRES intensity on elementary Islamic school attendance for exposed cohorts. At the same time, the increase in primary completion rates identified in prior work could have caused greater demand for secondary schooling. With the state focused on expanding primary education, secondary Islamic schools would have been well-positioned to capitalize on this demand shock. For this reason, we expect the policy might have increased secondary Islamic school attendance. Whether the substitution effect at the primary level outweighs the demand effect at the secondary level is an empirical question. The answer tells us about the overall net effect of state school expansion on exposure to Islamic education.

We also estimate equation (1) for the broader set of downstream outcomes described in the previous section. These reduced form estimates capture causal effects of SD INPRES on ideology and identity among exposed cohorts. We defer interpretation of the reduced form in this case to Section 7.

[10] Our core sample comprises 275 districts based on boundaries at the time of SD INPRES in the 1970s. In specifications with controls for the water and sanitation program, Duflo (2001) reports 283 districts based on boundaries as of 1995, by which time 8 districts from the 1970s had split in two.

4.2 Supply-Side Responses

To identify supply-side responses to the expansion of the public school system, we estimate

$$y_{ijt} = \alpha + \beta(INPRES_j \times Post1972_t) + (\mathbf{X}_j \times Post1972_t)'\mathbf{\Theta} + \mu_j + \delta_t + \varepsilon_{ijt}, \tag{2}$$

where y_{ijt} is a variable defined for type of school i, district j, and year of establishment t; $Post1972_{it}$ is an indicator for panel years after 1972; and $\mathbf{X}_j \times Post1972_{it}$ captures post-INPRES differential trends in outcomes with respect to the same district-level baseline covariates in equation (1). We also estimate event-study analogues of equation (2) that replace $Post1972$ with semi-decade dummies.

We first estimate equation (2) on a balanced district–year panel, using Islamic school entry as the dependent variable. Here, y_{ijt} denotes the number of new schools of type i—elementary, junior secondary, and senior secondary *madrasa* as well as *pesantren* and *madrasa diniyah*—created per district–year and per 1,000 children in 1971. This specification identifies the change in the number of Islamic school establishments in districts with greater INPRES intensity relative to other districts after the program began.

In a separate analysis, we explore Islamic school entry profiles in response to SD INPRES at the village level. We use a multinomial logit specification where the outcomes capture combinations of *madrasa* entry at the primary and secondary level. Compared to our main district-level analysis, this specification measures local competition at the level of education markets operating across several villages (within the same subdistrict). This village-level analysis is more descriptive in nature as the within-district variation in SD INPRES may reflect endogenous targeting on the part of district governments.

We also estimate competitive responses to SD INPRES in terms of curriculum differentiation. In this case, we estimate equation (2) on an unbalanced district-year panel (see Section 6.2). We are interested in the ideological content of the curriculum as reflected in study hours across subjects (e.g., Islam versus *Pancasila*, Indonesian versus Arabic). Under the assumption that curriculum remains stable within a given school over time, this specification identifies changes in the ideological leaning of schools established in districts with greater INPRES intensity after the program began.

5 Effects on Religious Schooling

This section presents our first set of results pertaining to religious school choice.

5.1 Religious Schooling by Level

Table 2 reports the effects of SD INPRES on binary indicators of *madrasa* completion. The outcomes in panel (a) equal one if the respondent's highest level of education is elementary Islamic (columns 1–2), junior secondary Islamic (columns 3–4), or senior secondary Islamic (columns 5–6). One concern with such measures is that the share of respondents completing Islamic education could be increasing simply because overall education levels are increasing after SD INPRES. Thus, in panel (b), we look at a different measure equal to one if the respondent completed Islamic elementary, junior secondary, or senior secondary, conditional on completing exactly the relevant years of education for each level

(6 years for elementary, 9 for junior secondary, and 12 for senior secondary). While such conditioning is endogenous, these alternative measures alleviate concern that our results are driven by the general increase in education levels. Across panels, and in all results that follow, we cluster standard errors at the historic 1970s district level of SD INPRES policy variation.

At the elementary level, the policy pulled students away from *madrasa* and pushed them towards the state system. Among cohorts aged 2–6 in 1974, INPRES intensity reduces the likelihood of Islamic primary attendance by approximately 10% (column 1). This substitution effect becomes smaller in magnitude for the long-run cohort comparison (column 2). Similar patterns arise for the conditional measure in panel (b). The weaker substitution effect in column 2 may be due to an increase in elementary Islamic school construction over the medium to long run, a mechanism explored in Section 6.[11]

At the secondary level, Islamic schools absorbed some of the increased demand for post-primary education. This effect is apparent both in the short term (columns 3 and 5) and the long term (columns 4 and 6). However, the longer-term effect is more than twice as large in magnitude, which again points to a potential supply-side response by the Islamic sector. The auxiliary IFLS data provides a striking summary statistic highlighting the importance of the demand channel: 78% of those that attended Islamic secondary schools did so after completing secular primary schools. The estimates in columns 3–6 suggest that SD INPRES may have catalyzed this type of schooling trajectory and ultimately increased exposure to Islamic education.

These results are borne out with less parametric structure in Figure 1. The graphs show the fraction of *Susenas* respondents in each cohort reporting elementary (panel a), junior secondary (panel b), or senior secondary (panel c) Islamic school as their highest level of education, separately for high-INPRES and low-INPRES districts. Appendix Figure A.1 reports the corresponding graphs with Islamic education defined conditional on completing the relevant years of schooling. These figures show the same key patterns as Table 2. High-INPRES districts experience a short-run substitution away from elementary Islamic schools and a long-run increase in the completion of secondary Islamic schooling. Both patterns begin to materialize for those born after 1968, the first cohort fully exposed to SD INPRES.

5.2 More (Islamic) Schooling

SD INPRES increased not only total years of education but also net exposure to Islamic education. Column 1 of Table 3 shows that each primary school constructed per 1,000 children increased years of schooling by around 0.14 years. The corresponding male-specific estimate of 0.17 years in Appendix Table A.3 lies between the range of estimated effects in Duflo (2001)—0.12 to 0.19—based on the intercensal survey (*Supas*) from 1995. The effect size roughly doubles when expanding the sample to include cohorts younger and older than the narrow-exposure window in the baseline (column 2).

Ultimately, the increase in secondary Islamic school attainment exceeds the substitution effect towards secular schools at the primary level. In the short-run, each additional INPRES school increased

[11] Examples of this can be found in the Indonesian-language literature, e.g., Darmaningtyas (2004) notes that in Madura: "...the tension between government and the clerics that had built schools in the form of *pesantren* persisted during the entire New Order Era. As a result, many SD Inpres in Madura [a region of East Java] have few students, because communities prefer schools built by religious leaders."

the likelihood of Islamic school completion by 5% (column 3), and this multiplies by a factor of 4 over the long run (column 4). The same holds for the likelihood of completing any Islamic school conditional on completing the relevant years of education as in panel (b) of Table 2. While close to zero in the short run (column 5), the effect of SD INPRES is positive and significant in the long run (column 6). Together, the estimates in columns 3–6 of Table 3 are also consistent with those in panel (d) of Figure 1: high-INPRES districts experience a diverging trend in the share of students completing any Islamic education.

Attending vs. Completing Islamic Education. One potential concern with these results is the low share of individuals with Islamic schooling in the *Susenas* data. Indeed, Table 1 shows that exposure to Islamic schooling is considerably higher in other sources. In the IFLS, Islamic education rates range from 11% in primary to 23% in junior secondary (20% across all levels, and 25% among enrolled cohorts). Administrative data covering cohorts enrolled in 2019 similarly show attendance rates ranging from 13% in primary to 23% in junior secondary (21% overall).

There are two reasons why the *Susenas* data may lead us to underestimate the effects of SD INPRES on Islamic school exposure. First, *Susenas* indicates whether the final year of education took place in a *madrasa*. If some of those attending secular secondary schools attended elementary *madrasa*, the *Susenas* measures would be understated.[12] Appendix Figure A.4 further illustrates this phenomenon using repeated cohorts from *Susenas*, e.g., 12% of respondents born in 1998 attended a *madrasa* in 2012, but only 7% of the same cohort reported having completed Islamic schooling in 2018. Second, *Susenas* does not allow respondents to indicate *pesantren* attendance. The large supply response among *pesantren* that we identify below suggests that this population could be important.

5.3 Identification Checks

Our core results on school choice are robust to key concerns about causal inference. First, SD INPRES was not systematically allocated towards districts with different preexisting trends in Islamic schooling. Figure 2 demonstrates the absence of pre-trends in primary and secondary Islamic school attainment, respectively. These graphs estimate cohort-specific β in equation (1) akin to an event study, coloring the exposed and control cohorts in gray and light gray, respectively (with the partially exposed cohorts in white). Figures 2 (a) and (c) highlight the time-path underlying the short-run while (b) and (d) correspond to the long-run estimates in Table 2. Figure 3 presents analogous patterns for total years of schooling and any Islamic education. Meanwhile, Figure 4, discussed below, presents similar evidence against pre-trends in Islamic school construction.

This is not to imply that the regime was entirely blind to regional variation in the size of the Islamic education sector. In fact, Appendix Table A.1 shows that the government allocated proportionally more INPRES schools to districts with a greater prevalence of Islamic schools as of 1972.[13] What the government did not do at the time was strategically target districts where the Islamic education sector was

[12] The IFLS suggests that this population could be sizable: among those continuing after Islamic primary school, 31% attend secular junior secondary schools, and among those continuing after Islamic junior secondary school, 48% attend secular senior secondary schools.

[13] This level difference is evident on the demand side as well (see comparison cohorts born before 1968 in Figure 1).

rapidly expanding. The lack of pre-trends in Figures 2–4 is consistent with this interpretation.

5.4 Intergenerational Effects on Islamic Schooling

Overall, SD INPRES increased exposure to Islamic education among both men and women. The effects may even be slightly larger for women, at least over the long run (see Appendix Table A.2).[14] Importantly, the significant effects on Islamic schooling for both genders increase the scope for intergenerational transmission within the family.

In particular, exposed cohorts may have married others with similar educational experiences and then demanded greater Islamic schooling for their children. We explore this conjecture in Table 4 using the complete enumeration of household members' schooling available in *Susenas*. This analysis focuses on the original exposed and comparison cohorts from in Tables 2 and 3 but is restricted to those with co-resident children older than 18 (i.e., those who have already completed schooling). To allow for maximal sample coverage, we estimate the effects of each parent's exposure separately rather than restricting to the particular subsample of kids with both parents in the original cohorts.

Column 1 of Table 4 shows that exposed male cohorts are more likely to marry women with Islamic schooling. This could be due to matching within Islamic schools, matching post-schooling, or arranged marriages by parents who sent their children to an Islamic school. It could also be an indirect consequence of the slightly larger effect of SD INPRES on *madrasa* education for girls (see footnote 14). The effects are null for women's marital choice, perhaps because women face greater constraints in selecting partners (column 2). Overall, this increased mixing of Islamic-educated individuals in the marriage market, in turn, has implications for school choices in the next generation.

Columns 3–8 of Table 4 show intergenerational effects on Islamic schooling. Both parent's exposures to SD INPRES in the 1970s are associated with an increase in children's likelihood of completing secondary Islamic education (columns 5–8). However, these children are also less likely to complete primary Islamic education (columns 3–4), much like their parents in column 1 of Table 2. Parents may be choosing to replicate their own educational trajectories for their children a few decades later. Appendix Table A.7 provides direct evidence of intergenerational persistence in Islamic schooling. There we see that the likelihood that a child completes Islamic schooling is 20 percentage points higher when either parent has an Islamic education background (columns 4 and 8).[15]

These results hint at a distinction between preferences and constraints. The parents of exposed cohorts who sent their children to public primary schools in the 1970s were often constrained to choose Islamic secondary schools for continued education. As those children became parents themselves, they did not face the same constrained school choice set as both Islamic primary and public secondary schools

[14] These estimates are consistent with different parental preferences over the religious content of schooling for boys and girls. This resonates with Meyersson (2014) who finds that Islamic political control increased educational achievement among women in Turkey. In our context, the smaller short-run effect on years of schooling for women (see Appendix Table A.3) suggests parents may have been initially more reluctant to send their daughters to the newly created government schools. *Madrasa* would then have provided a more acceptable alternative for girls' education in these families.

[15] The results in Table 4 and Appendix Table A.7 are consistent with SD INPRES causing such transmission. However, we maintain our focus on the reduced form effects of parental exposure to the program without taking a stand on how exactly that exposure shaped children's Islamic schooling. We return to this issue of interpretation again in Section 7.

had expanded over time (see Section 6). Yet, these parents still chose Islamic schools for their children. In other words, the constraints faced by parents in the 1970s may have led to a shift in the demand for Islamic schooling of their grandchildren several decades later.

5.5 Why the Supply-Side Matters

In sum, SD INPRES caused an increase in Islamic education that was likely fueled by secondary Islamic schools' absorption of new primary school graduates. Together, these results are consistent with a conjecture in Duflo (2004) that "the program affected mostly primary school completion, whereas omitted factors would have affected other levels of schooling as well." An important omitted factor lies in the response of the Islamic education sector. Here, we present motivating evidence on the importance of this supply response.

Appendix Table A.6 regresses individual-level schooling outcomes from Tables 2 and 3 on INPRES primary and other school construction from 1973 to 1978. Odd-numbered columns replicate the standard specification. Even-numbered columns include analogous interactions of the $young$ cohort indicator with the number of state secondary, Islamic primary, and Islamic secondary schools constructed over the same period. We are careful to note that all these variables are endogenous to the original SD INPRES policy shock. With this caveat in mind, the likelihood of completing any secondary schooling strongly correlates with the entry of state secondary schools and Islamic secondary schools, but not with new primary schools (column 4). In other words, any effect of SD INPRES on post-primary completion rates may have come from additional, correlated responses by the state and the Islamic sector to the initial policy shock. Moreover, Islamic secondary school completion is shaped not only by SD INPRES but also by entry of Islamic primary and secondary schools (column 6).

6 Supply-Side Responses

To better understand the effects of SD INPRES on school choice, we now explore how the program shaped supply-side dynamics in education markets.[16] The Islamic sector responded to the primary school construction boom in two ways. First, Islamic society, equipped with charitable endowments (*waqf*), expanded its educational presence in districts with greater SD INPRES intensity—starting with junior secondary schools, and ultimately at all levels of schooling. Second, Islamic schools entering high-INPRES districts after the policy provide a greater volume of Islamic content, and a smaller volume of civic education and instruction in the national language. Together, these results show how a landmark mass schooling effort transformed education markets over the ensuing decades.

[16] In what follows, while often referring to the "supply response", we acknowledge that the long-run expansion of Islamic education in high-INPRES regions may well be due to changes in demand among the originally-exposed cohorts as they raise children of their own, as seen in Section 5.4.

6.1 More Islamic Schools

This section examines the Islamic sector's response along the extensive margin: construction of new schools. The outcomes of interest include the number of new elementary, junior secondary, and senior secondary *madrasa* establishments. We also look at new *madrasa diniyah* and *pesantren*, which are Islamic afternoon schools and boarding schools, respectively. The numbers of schools of each type created per district-year are divided by the 1971 children population, analogous to the SD INPRES intensity measure.

In Table 5, panel (a) shows greater entry of Islamic schools in high-INPRES districts: elementary (column 1), junior secondary (column 2), and senior secondary *madrasa* (column 3), as well as *diniyah* (column 4) and *pesantren* (column 5). At the elementary and junior secondary level, one additional INPRES school is associated with 0.1 more Islamic schools per 1,000 children over the ensuing 25 years, i.e., by the end of the New Order regime in 1998.

Tracing out these effects over time, we uncover a dynamic but gradual process by which the Islamic sector responded to the state's primary school expansion. Figure 4 estimates the effects of SD INPRES by semi-decade using an event-study approach. High-INPRES districts experience a steadily diverging trend in flows of new secondary *madrasa* and *pesantren* (Figure 4, panels b–d). A similar pattern holds for elementary *madrasa* (panel a). Alongside the striking increase in Islamic school entry came the entry of additional state schools. However, Figure 4(f) shows that Islamic school entry outpaced state school entry from the 1980s onward in high-INPRES districts. While the Ministry of Religious Affairs created a limited number of publicly-run *madrasa* during this period (see Section 2.2), the Islamic sector response in high-INPRES districts appears to have been fueled by private *madrasa* (see Appendix Figure A.2).

Local Competition. The results thus far hint at a strategic Islamic sector response to state school expansion. Table 6 provides evidence for this type of competition within local education markets. Islamic organizations may respond locally to SD INPRES entry in their own village or in neighboring ones within the same subdistrict. Using a multinomial logit formulation, we consider four distinct competition profiles: no entry, elementary *madrasa* entry, junior secondary *madrasa* entry, and both elementary and junior secondary *madrasa* entry.[17] We report marginal effects with no entry being the reference category.

Table 6 suggests distinct short- and medium-run supply responses by the Islamic sector. In the short run, new junior secondary *madrasa* capitalized on demand for continued education among SD INPRES graduates. In particular, villages with SD INPRES entry between 1973 and 1978 are 50% more likely to have built only an Islamic junior secondary school in the following years through 1983 (column 2, panel a). SD INPRES entry in nearby villages within the same subdistrict is associated with greater junior secondary *madrasa* entry in one's own village: moving from the 25th to the 75th percentile of subdistrict saturation (excluding one's own village) shifts the entry by nearly 30%. This is consistent with secondary schools serving students from more than one village. At the same time, SD INPRES entry has no effects on elementary *madrasa* entry (columns 1 and 3, panel a). In other words, the Islamic sector focused its short-run efforts on absorbing some of the growing demand for post-primary education.

[17] Similar insights obtain when further incorporating senior secondary *madrasa* and allowing for all eight possible combinations across the three grade levels.

By contrast, in the remaining years of the Suharto era, the Islamic sector not only built more junior secondary schools but also began to compete at the primary level. This medium-run response can be seen in panel (b) of Table 6, which looks at Islamic school entry from 1984 to 1998. SD INPRES construction in the 1970s is associated with an increase in the likelihood of elementary *madrasa* construction in the 1980s and 1990s within the same village (column 2). More junior secondary *madrasa* also enter in villages with SD INPRES schools (column 3), and also do so in tandem with elementary *madrasa* (column 4). These findings corroborate the event-study path in Figure 4.

While suggestive of a causal competitive response, the results in Table 6 should be interpreted more descriptively than our core district-level results. Specifically, the plausibly exogenous variation in the SD INPRES policy lies at the district level where school construction funds were allocated based on the predetermined school-age population and enrollment rate. Within district, these funds may be allocated endogenously across villages and subdistricts. One concern might be that district officials with particular secularizing ambition targeted SD INPRES schools towards villages with Islamic schools (see Appendix Table A.1 for evidence of such targeting at the national-to-district level). We address this concern in Appendix Table A.8, which shows that the core patterns of local competition hold when conditioning on the presence of Islamic schools in the village before 1973.

Interpretation. Overall, the Islamic sector responded to SD INPRES by building more schools. Appendix B offers a theoretical foundation for this result. Under basic assumptions about the shape of demand for schooling, religious and secular education can act as strategic complements (Bulow et al., 1985). We provide a simple model that generates this prediction. In this setup, the state and the Islamic sector compete in a Stackelberg game where the former is leader and the latter is follower. An outward shift in demand for schooling causes the state to increase its supply of schools. In turn, this increases the supply of religious schools since the Islamic sector's best response is upward sloping with respect to the state's decision. In practice, these strategic complementarities may arise from a variety of mechanisms including, among others, transitions in and out of the Islamic schooling system, co-location of primary and secondary *madrasa*, and comparative advantage of *madrasa* in providing female education in conservative communities (see footnote 2).

Several robustness checks point to a causal interpretation of the Islamic sector response to SD INPRES at the district level. First, note the lack of pre-trends in Islamic school construction in Figure 4, mirroring the patterns in Islamic school completion rates in Figure 2. Second, Appendix Figure A.3 suggests that the supply response by the private Islamic sector is distinct from other private sector responses.[18] Some private non-Islamic schools enter in response to SD INPRES, but these entry patterns are most concentrated at the primary level and follow a different (and more muted) post-1970s trajectory than the Islamic sector. Third, the patterns are unlikely to be an artifact of survivor bias in the 2019 registry of Islamic schools. Appendix Table A.9 shows that the increase in Islamic school entry after the 1970s can be seen in historical administrative data (from *Podes* 1980, 1983, 1990, 1993) that is not subject to the attrition biases inherent to contemporary administrative registries.[19]

[18]There are 41,969 private non-Islamic schools under MEC authority in 2019 (see Appendix C).
[19]The first round of *Podes* was in 1976, but this data does not distinguish Islamic schools.

Financing New Islamic Schools. The preceding results raise the question of how the Islamic sector financed the expansion of its own education system. For decades, private Islamic organizations had financed schools through the use of inalienable *waqf* land endowments. In 1963, 88% of all private elementary *madrasa* were run by Islamic organizations (Lee, 1995). One of the largest, *Muhammadiyah*, controlled over 3,000 hectares of *waqf* property supporting more than 4,300 *madrasa* by 2004 (Jahar, 2005). We show here that *waqf* endowments helped fuel the Islamic sector response to SD INPRES.

Panel (b) of Table 5 interacts the relevant terms in equation (2) with a proxy for total *waqf* land at the district level in 1972: land endowed in *waqf* used to support mosques. While a small subset of all *waqf* land, this measure is the best available proxy in the historical period and is likely proportional to total *waqf* land in a given locality at the time, which includes *waqf* land that directly supported religious schools.[20] Since *waqf* land correlates with the Muslim share in the local population, we also interact the relevant terms in equation (2) with the share of Muslim individuals among cohorts born by 1972 (observed in the 1976 census).

Districts with greater *waqf* land endowments experience a larger Islamic school supply response to SD INPRES (columns 1–3). One additional square kilometer of *waqf* land is associated with roughly 0.5 more elementary *madrasa* over the ensuing 25 years (by 1998). Districts with a larger Muslim share also see a larger Islamic school supply response to SD INPRES. This is distinct from the heterogeneous effect of initial *waqf* endowments and perhaps consistent with a more general backlash against the secularization effort embodied in SD INPRES. Finally, the negative two-way interaction implies that the policy depressed new *madrasa* establishments in areas with a limited *waqf* base and low Muslim presence.[21] Overall, the capital held in *waqf* enabled a strong, positive infrastructure response by the Islamic sector.

Why, though, did Islamic organizations not expand their schooling network prior to INPRES if indeed they had the resources to do so? Part of the answer lies in the politics of competition between Islam and the state. Absent any effort to secularize local education, Islamic leaders might have had weaker incentives to push into new markets or more aggressively contest existing ones. This is the essence of the simple model described in Appendix B. It also resonates with the policy context in which the state was not only expanding access to secular schools but also pushing to secularize Islamic schools (see Section 2.2). As we show next, the Islamic sector responded to this push not only along an extensive margin but also an ideological one.

6.2 Ideological Differentiation

Table 7 shows that Islamic schools created in high-INPRES districts after 1972 provide greater religious content and study of Arabic at the expense of civic education and the national language. Here, we estimate an unbalanced district-level panel where each observation is a mean outcome across all schools entering a given grade level in a given year.

Pooling across levels, we find that SD INPRES is associated with an increase in the share of weekly

[20] See Bazzi et al. (2020) for a detailed discussion of this measure, which comes from administrative data collected by MORA.

[21] These represent a small fraction of all districts. Only districts below the tenth percentile in the Muslim share experience a negative *madrasa* entry response to SD INPRES.

instruction time devoted to Islamic subjects (panel a, column 1). At both the primary and junior secondary levels, each additional INPRES school is associated with a 5% increase in Islamic content among newly created Islamic schools (panel a, columns 2 and 3). At the junior secondary level, part of this increase in Islamic content is achieved, among others, through a reduction in classroom time devoted to the study of *Pancasila* and civic education (panel b, column 3). Panels (c) and (d) show similar patterns of substitution for the share of instruction hours dedicated to Arabic and *Bahasa* Indonesia, respectively. Each additional INPRES school leads to a 6% increase in Arabic instruction at the primary level (panel c, column 2) and a 5% decrease in *Bahasa* instruction at the junior secondary level (panel d, column 3).[22]

In Appendix Table A.10, we show that the increase in Islamic content and Arabic instruction, as well as the corresponding decrease in civic education and *Bahasa* instruction, hold when measuring total instruction hours. This is important insomuch as one way that Islamic schools might adjust is by increasing total classroom time to accommodate other material besides religious subjects. Together, Tables 7 and A.10 suggest that instruction hours dedicated to Islamic content and Arabic learning crowd out civic education and study of the national language—two important inputs to the homogenizing function of mass public schooling. We return to these results in Section 7.[23]

Importantly, our difference-in-difference-based interpretation hinges on the stability of school curricula. That is, we assume that the curriculum observed in 2019 is highly correlated with that observed in a school's initial year of operation. It is not possible to validate this assumption, but there are reasons to think that a school's curriculum is closely attached to its ideology, which likely has persistent features tied to the identity of founders. Moreover, given the legacy of conservative schools' opposition to state oversight, we suspect that the *madrasa* included in the SIAP registry are those with less Islamic content and hence more likely to be compliant with government-recommended curriculum. This could work against our findings, presuming that such selective reporting is differential in high-INPRES districts.[24]

Quality. Do these patterns of curriculum differentiation affect the quality of learning in Islamic schools created in the wake of SD INPRES? The higher volume of instruction dedicated to Islamic content and Arabic learning comes at the expense of studying standard subjects required to pass national exams. Appendix Table A.11 shows that students in Islamic schools devoting more classroom time to religious subjects exhibit weaker performance on standardized math and science tests.

Our identification strategy does not allow us to disentangle this particular mechanism (or differentiation along a quality margin) from selection on ability. However, in Appendix Table A.12, we show that Islamic junior secondary schools created after 1972 in high-INPRES districts exhibit lower contemporary

[22] Despite these shifts at the primary and junior secondary level, we find different patterns at the senior secondary level where SD INPRES is associated with a reduction in Islamic content and an increase in *Pancasila* and Arabic instruction (panels a–c, column 4). This goes against some of the findings elsewhere but may be an artifact of the small number of senior secondary schools in SIAP. It also hints at a possible secularization of senior secondary Islamic schools aimed at capturing junior secondary graduates intent on going on to university where proficiency in traditional non-Islamic subjects is essential.

[23] This ideological differentiation was especially pronounced in districts where the Islamic sector did not build a large number of new schools. We find a negative correlation between *madrasa* establishments and the volume of Islamic content taught at newly created schools.

[24] We find some evidence against differential reporting. For example, *madrasa* created after 1972 in high-INPRES districts are no more or less likely to report to SIAP, using the baseline supply-side regression specification in equation (2). Nor we do observe differential reporting to SIAP by more conservative *madrasa*—as inferred from Islamist-oriented school names.

test scores than those created prior to the program (though this is imprecise, see column 2). There is also a larger test score gap between Islamic and non-Islamic schools in high-INPRES districts among schools created after 1972 (column 4). These results are consistent with both different sorting on ability as well as a change in instructional quality across Islamic and non-Islamic schools after SD INPRES.

7 Mass Schooling and Nation Building

Like most mass public schooling efforts, Indonesia's entailed significant political ideological objectives. This section shows that such ambition may have come up short, frustrated in part by the dynamic supply-side response of the Islamic education sector. SD INPRES failed to increase support for the Suharto regime and set in motion a significant shift in religious identity and preferences that ultimately worked against the state's secular nation-building agenda.

In what follows, we maintain our focus on the reduced form. This allows for compelling causal inference but requires careful interpretation. In particular, we do not disentangle the direct effect of SD INPRES exposure from that of the increased Islamic school presence. For example, the policy could have affected piety through increased exposure to religion in state schools (with their mandatory 2 hours), or parents sending their kids to state schools may have increased religious activities inside the home. While such effects are plausible, the nexus of results below suggests that the Islamic sector likely played a significant role in shaping the legacy of SD INPRES. Without such a strong role, it is difficult to explain (i) why INPRES exposure increased religiosity without simultaneously increasing attachment to the national identity, or (ii) why the regime would have suffered short-run electoral losses to the Islamic opposition in high-INPRES regions.

7.1 Support for the New Order Regime

In the short run, a major development initiative like SD INPRES could have bolstered support for Suharto and the New Order. Given the lack of data on political attitudes at the time, we explore legislative election results during this period (in 1971, 1977, 1982, 1987, and 1992) as well as the first three held after Indonesia's democratic transition (in 1999, 2004, and 2009).[25] Only three parties were allowed to compete in elections under the New Order after 1971: Suharto's *Golkar* party, the Muslim umbrella United Development Party (PPP),[26] and the secular nationalist Indonesian Democratic Party or PDI. *Golkar* obtained 70% of the vote on average across all New Order elections, while the PPP was the main opposition party with 21% of the vote. After 1999, both *Golkar* and the PPP garner much smaller vote shares due to the proliferation of parties on both the secular and religious sides of the political spectrum.

Surprisingly, SD INPRES did not increase electoral support for the regime in districts with greater

[25]The final election of the Suharto era was in 1997, but we could not obtain district-level records from this round.

[26]The Suharto regime forced all Islamic political parties to combine under the PPP in 1973 while also mandating that "Islam" not be allowed in the party name. In the 1971 election, we capture the Islamic vote share by combining all four Islamic parties that were later subsumed under PPP: *Nahdatul Ulama* (NU), the Muslim Party of Indonesia (Parmusi), the Islamic Association Party of Indonesia (PSII) and the Islamic Education Movement (Perti). NU was the second-highest ranked party in that election (after *Golkar*) with 18% of the vote).

INPRES intensity. The 1971 round was the only New Order election conducted before school construction ensued. Elections held in 1977 and 1982 would have been indirectly affected by the policy (e.g., through the increased presence and influence of teachers), while the exposed cohorts aged less than 6 in 1974 would have first voted in 1987. In panel (a) of Figure 5, Suharto's *Golkar* party experiences a marked decline in electoral support from 1971 to 1977 in high-INPRES districts: each additional INPRES school per 1,000 children is associated with a 2–4 p.p. decline in the *Golkar* vote share (a 3–6% effect relative to the mean of 65% in 1971). This effect appears as early as 1977 and persists until 1992.

The Islamic opposition captured some of the declining support for *Golkar*. We see this for the PPP vote share in absolute terms (panel b) and relative to *Golkar* (panel c). One explanation could be that the PPP captured general opposition sentiment. Indeed, the effect of INPRES intensity on support for the PPP becomes noisier after 1999, when the PPP was no longer the main vehicle for opposition aspirations. However, another explanation is that the Islamic sector pushed back against the secularizing advance by the state, which was most salient in districts with greater INPRES school construction. The decline in *Golkar* support as early as 1977 is consistent with this pushback. If instead these electoral shifts had been slower to materialize, it would have been difficult to rule out an alternative explanation, namely that INPRES created a more educated citizenry that was simply more opposed to the regime's authoritarian ambition. The more plausible explanation for Figure 5 is that the Islamic sector mobilized not only by building more religious schools but also by coordinating political opposition through its various non-state institutions, including its expanding school network.

Overall, the picture emerging from Figure 5 is clear: SD INPRES did not boost support for the Suharto regime during the New Order era. Even under an autocratic regime with tightly controlled elections, mass schooling failed to indoctrinate voters and instead fostered support for the main opposition party, the Islam-based PPP. Table 9, discussed below, provides long-run, cohort-based evidence on legislative candidate entry that aligns with these nascent electoral divisions.

After 1999, the nature of the Indonesian state changes dramatically. Many more political parties compete and capture opposition sentiment. Moreover, ideological attachment to the Indonesian nation no longer conflates with support for the New Order regime. Understanding the long-term impacts of SD INPRES on identity and nation building thus requires looking across a range of indicators.

7.2 Effects on National and Religious Identity

As the Islamic schooling system expanded, it counteracted the regime's intent to build a secular Indonesian identity through SD INPRES. Exposed cohorts provided greater support for Suharto's main opposition party, the Islam-based PPP, which could have reflected a broader shift in religious and political ideology. Table 8 provides initial evidence along these lines. Panel (a) explores dimensions of secular identity across Muslim and non-Muslim citizens, while (b) examines religious piety and practice among Muslims. Of course, a high level of Islamic piety is not incompatible with a high level of attachment to the secular state. Yet, as we show, INPRES exposure is associated with greater piety but not with greater support for the secular state, which, together, point to a role for the Islamic sector response in explaining the long-run effects on nation building.

We first examine a standard marker of an individual's attachment to the national identity in multilingual countries: the use of the national language at home. With the complete-count 2010 Population Census, we observe nearly 32 million individuals in the original cohorts aged 2–6 and 12–17 in 1974. We find null effects of SD INPRES across the full population (column 1). However, this null masks a religious divide: 16% of Muslims use Indonesian as the main language at home compared to 28% of non-Muslims.[27] Among Muslims, INPRES-exposed cohorts report significantly less home use of the national language (column 2), while affected non-Muslim cohorts exhibit little response (column 3). This is an important result as INPRES schools aimed to promote a single Indonesian identity built around a common language. To be sure, SD INPRES did increase Indonesian speaking ability, including among Muslims, as seen in Appendix Table A.13 (columns 1–3). However, it did not increase attachment to the Indonesian language, and may have even reduced that attachment among Muslims. The INPRES-induced curriculum differentiation seen in Table 7 helps explain why.

For those exposed to Islamic education as a result of SD INPRES, immersion in the national language may have been crowded out by the study of Arabic, the language of the Qur'an. Table 7 showed that schools created in high-INPRES districts after 1972 devote more classroom time to Arabic and less to Indonesian language and literature. Table 8 shows that SD INPRES increased Arabic knowledge among exposed cohorts (column 4). Columns 5 and 6 demonstrate that the positive effects are driven by those with any Islamic education (two-thirds of whom report Arabic literacy, compared to one-third with secular education).[28] Importantly, like the distinction between national language ability versus home use, here too we can clarify the identity content of Arabic literacy: Appendix Table A.13 (columns 4–9) shows that SD INPRES increased literacy in the Latin alphabet (on which Indonesian is based) but did not increase literacy in other languages besides Arabic. Moreover, conditional on years of schooling (fixed effects), Arabic literacy is 20–30 percentage points higher for those with Islamic education (see Appendix Table A.14).

These shifts in national and religious identity are accompanied by broader changes in piety. In panel (b) of Table 8, we look at a range of Islamic practices recorded in the Pepinsky et al. (2018) survey: praying 5 times a day (column 1), fasting during Ramadan (column 2), reading the Qur'an (column 3), attending Friday prayer (column 4), performing *Sunna* prayers (column 5), joining prayer groups known as *pengajian* (column 6), and paying *zakat* (column 7).[29] While several of these are standard indicators of piety, respondents vary widely in their practice. For example, 83% report paying *zakat* and 81% fast during Ramadan, while only 23% always attend Friday prayer and 18% perform non-obligatory *Sunna* prayer. Column 8 pools all practices into a single index. Overall, we find positive effects of INPRES exposure on most measures.[30] The effects are somewhat larger for religious practices with a

[27] Importantly, using this same Population Census data, we find a precise zero effect of SD INPRES on the likelihood of being Muslim: -0.0003(0.0011) relative to a mean of 0.878.

[28] We switch between sample splitting on religion and on religious schooling across outcomes in panel (a) because *Susenas* does not record religion, and the 2010 Population Census does not report Islamic schooling but only the level completed.

[29] Given the small sample in this survey, we focus on the long-run cohort specification including all individuals aged 6 or less and 12 or more in 1974.

[30] These effects differ somewhat from those in Table 8 of Rohner and Saia (2019). Using the IFLS and a more expansive definition of INPRES exposure that includes the partially-exposed cohorts, they show that INPRES increased religiosity (on a self-reported 5-point scale) but had null effects on prayer. Our findings across a richer set of outcomes measuring piety and

social dimension (e.g., attending Friday prayer), perhaps reflecting the fact that individuals educated in *madrasa* more regularly practice their faith in a group setting within their community.

Together, the results in Table 8 suggest that SD INPRES may have inadvertently increased Islamic identity at the expense of a secular national identity. For those attending Islamic schools, this could have occurred through learning Arabic as well as Islamic thought and practice. For those attending state schools, this could have occurred through greater exposure to Islamic-educated peers in one's community or engagement with the Islamic sector outside formal schooling (e.g., through parental inputs or attendance of *madrasa diniyah* or mosque-based youth groups). Disentangling these mechanisms is beyond the scope of our identification strategy. Nevertheless, their combined effects help explain how the Islamic sector response could have been large enough to shift religious identity over the long run. These shifts in identity have further implications for ideology and political preferences as we show next.

7.3 Effects on Political Attitudes and Ideology

Table 9 explores additional downstream effects of SD INPRES on political ideology among citizens (panel a) and politicians (panel b). First, we consider a direct measure of citizen support for *Pancasila*, the secular national ideology advanced through primary schools. The Pepinsky et al. (2018) survey asks respondents whether *Pancasila* is the best ideology for the nation or whether it should be replaced with another more suitable ideology. Column 1 in panel (a) shows that SD INPRES had a fairly precise null effect on support for *Pancasila*, which stands at 84% across the population. However, this masks a large divide between Muslims (83%) and non-Muslims (93%). This gulf widens for those exposed to SD INPRES: affected non-Muslim cohorts exhibit greater support for *Pancasila* than non-affected cohorts (column 2) whereas affected Muslim cohorts exhibit a small but precise null response (column 3). These results are suggestive of differential effects across groups with varying exposure to the Islamic education sector. Importantly, Appendix Table A.15 shows that individuals in this survey exhibit similar Islamic schooling outcomes as those in the baseline *Susenas* sample from Tables 2 and 3.

While INPRES exposure did not increase support for *Pancasila* among the majority Muslim population, it also did not spur support for conservative Islamist ideology as an alternative foundation of the state. We demonstrate this using two measures of support for Islamic law, again drawing on the Pepinsky et al. (2018) survey. The first, subjective measure in column 4 is an indicator for individuals reporting strong or very strong support for *sharia* as the foundation of the state. The second, objective measure in column 5 takes the mean across indicators of support for different dimensions of *sharia*: corporal punishment for crime, prohibition of interest, mandatory *hijab*, supporting polygamy, punish adultery with stoning, and punish apostasy with death. Across both outcomes, we find null effects of SD INPRES on affected cohorts of Muslim citizens. Appendix Tables A.16 and A.17 provide further evidence using the six sub-components of the *sharia* index as well as other measures of support for Islamist ideology.

The bottom panel (b) of Table 9 provides analogous evidence on long-run ideology among politicians. We estimate the effects of INPRES exposure on candidate entry in the 2019 legislative elections,

practice are consistent with their finding on religiosity but not with respect to prayer.

restricting to the original cohorts (2–6 versus 12–17 in 1974, respectively).[31] INPRES-exposed cohorts are significantly less likely to run on a *Golkar* ticket and more likely to run on a PPP ticket (columns 1 and 2). In other words, the short-run effects on support for *Golkar* and the PPP seen in Figure 5 persisted over the long-run among affected cohorts of political candidates. This is despite both parties being considerably less popular than in the New Order era when the PPP was the main opposition. Furthermore, INPRES-exposed candidates, across all parties, are less likely to campaign on *Pancasila* or related nation-building themes (column 3). However, they are no more likely to campaign on Islamic themes (column 4), and indeed religious appeals are not confounded with nation-building ones (column 5). Thus, while the Islamic opposition party (PPP) captured short-term support among INPRES cohorts, this did not translate into long-term support for political Islam, perhaps because the PPP's main appeal—nurtured inside the Islamic educational system—was to provide a credible alternative to the Suharto state.

8 Conclusion

One of the most ambitious educational policies ever implemented, SD INPRES pursued developmental as well as ideological objectives. A large literature documents the policy's substantial and long-lasting effects on human capital. In this paper, we provide the first comprehensive investigation of its effects on education markets as well as its political legacy. Our appraisal of the policy's long-term ideological impacts takes into account the competitive response of Islamic schools. Before the 1970s, the Indonesian state had sought to suppress the country's long-standing Islamic education sector to facilitate the emergence of a secular national identity. SD INPRES was also designed with this goal in mind, in the context of a young political regime focused on promoting national unity and its own legitimacy.

Our findings point to some surprising consequences of mass schooling. Despite its enormous investments, the Suharto regime reaped little electoral gain from SD INPRES and arguably experienced some backlash at the polls. Nor did the mass public school expansion strengthen national identity or support for the secular state over the long run. This runs counter to the nation-building effects of mass schooling seen elsewhere historically. Part of the difference here lies in the Islamic sector response, which counteracted state investments in secular education by capturing new primary graduates from state schools, by building more religious schools, and by deepening Islamic content inside the classroom. In the long run, this increased piety may have crowded out Indonesian identity without representing a genuine threat to the legitimacy of the Indonesian state. Indeed, increased religiosity was not accompanied by increased support for Islamist ideology.

These findings stand in contrast to Bazzi et al. (2020) who show that a resource windfall for Islamic institutions in the 1960s caused a shift towards religious politics with no accompanying change in piety. Many of their effects ran through the Islamic school system. The opposite findings in the present study—greater piety and no shift towards religious politics—can be explained by the different types of Islamic organizations that responded to the given shock. In the 1960s, the resource-constrained Islamists, sub-

[31] Note that all legislative candidates are required to have at least a primary education. Hence, the results here apply to a population for whom the underlying (Islamic) secondary school response is more important than any first-order effects on primary education.

ject to long-standing repression by the state, benefitted most from an increase in their resource base. By contrast, in the mid-1970s when SD INPRES came into force, moderate Islamic organizations such as *Muhammadiyah* and *Nahdlatul Ulama* were best positioned to capitalize on the growing demand for secondary education that resulted from mass elementary schooling. They already had extensive resources and decades of experience providing Islamic education across the country.

The different patterns of piety and politics across the two studies highlight the vast ideological diversity within Indonesian Islam that persists to this day. While schools borne out of the 1960s shock advocate a more fundamentalist ideology emphasizing the importance of *sharia* law in organizing society, those borne out of market competition with SD INPRES schools in the 1970s provide a curriculum more accommodative of the secular state, despite their large volume of religious content. Until now, successive Indonesian governments have successfully capitalized on these divisions. Moderate establishments are co-opted and incorporated in the mainstream education system while those promoting more radical ideologies are gradually marginalized. Yet, more than fifty years after SD INPRES attempted to eliminate it, the dual system remains.

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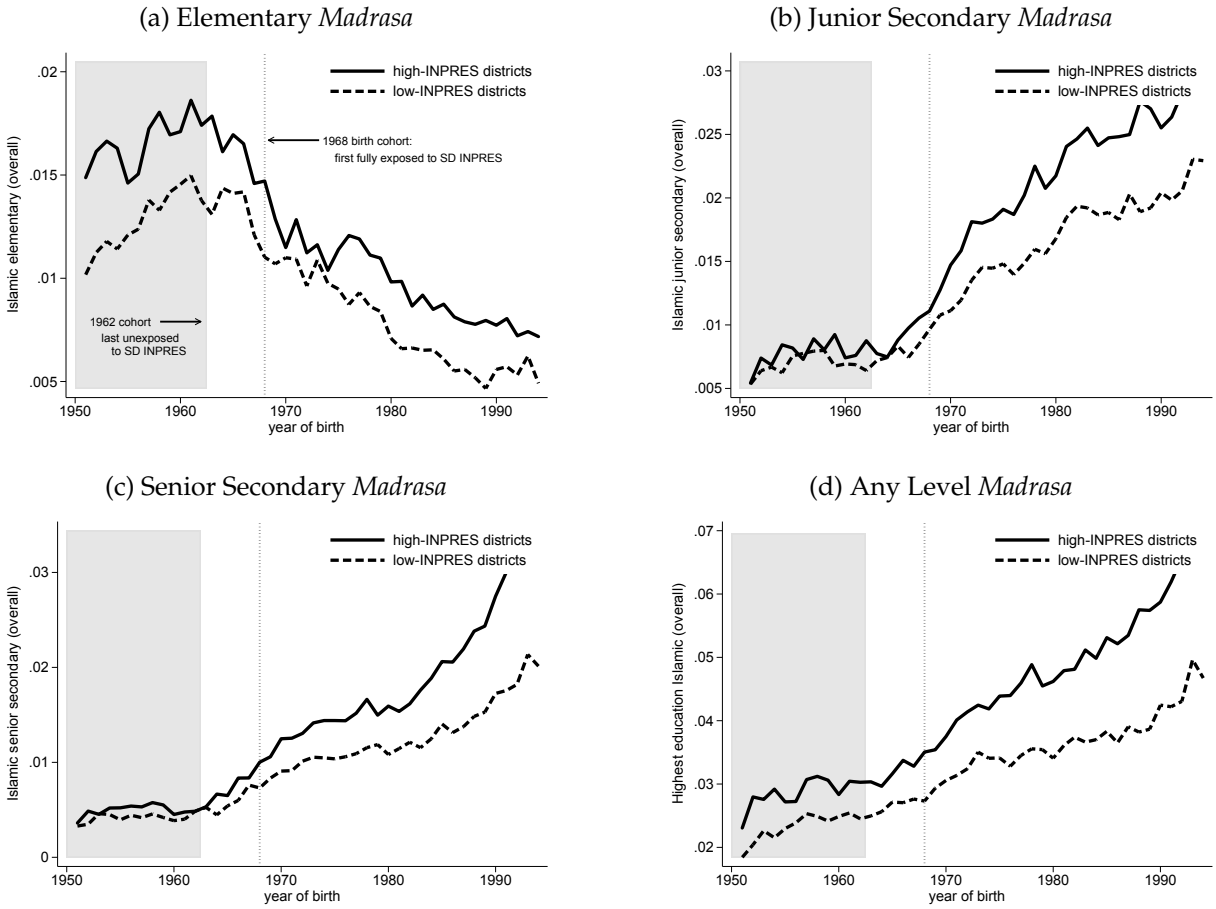
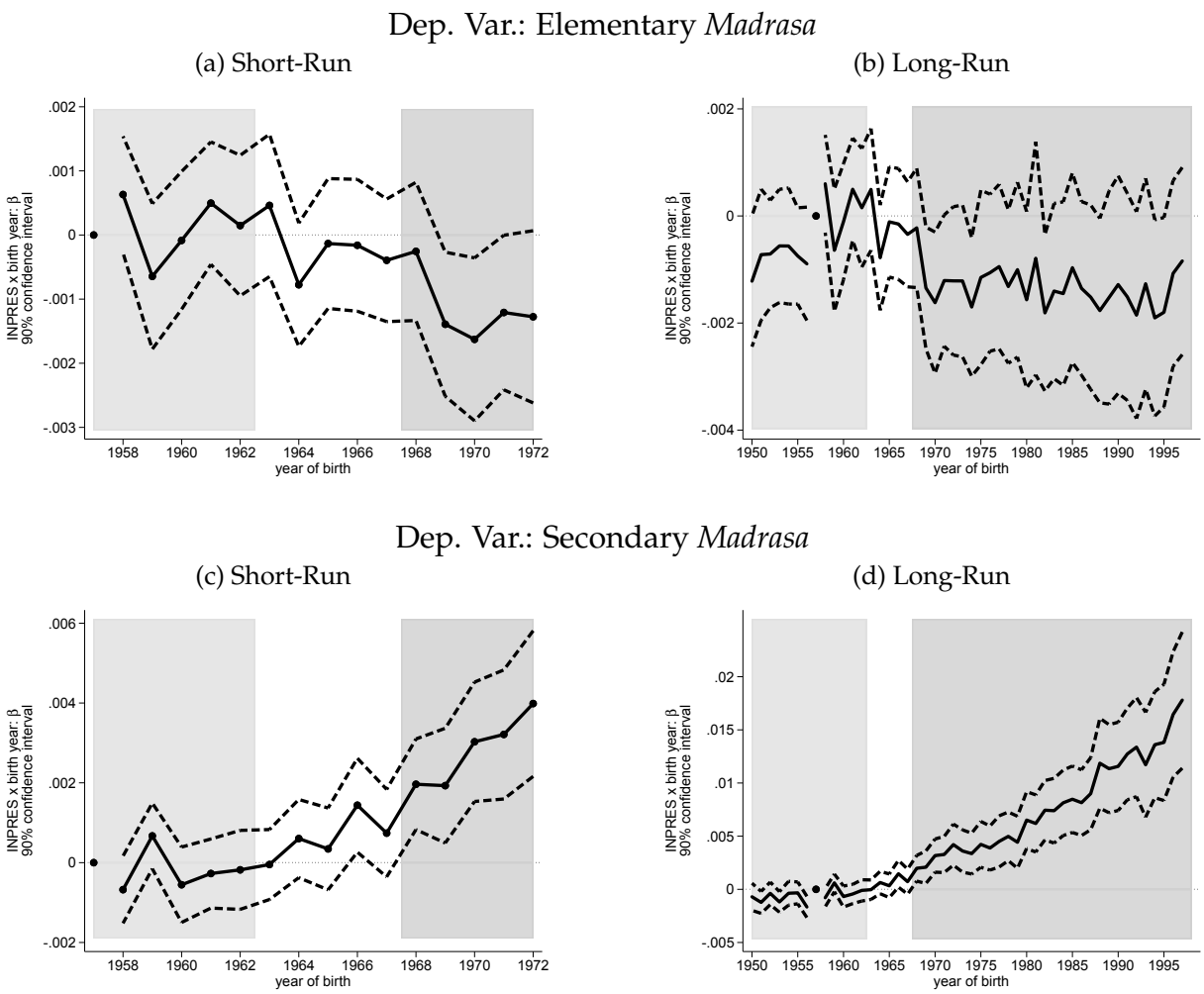
Figures

Figure 1: INPRES Exposure and Islamic Schooling – Raw Summary



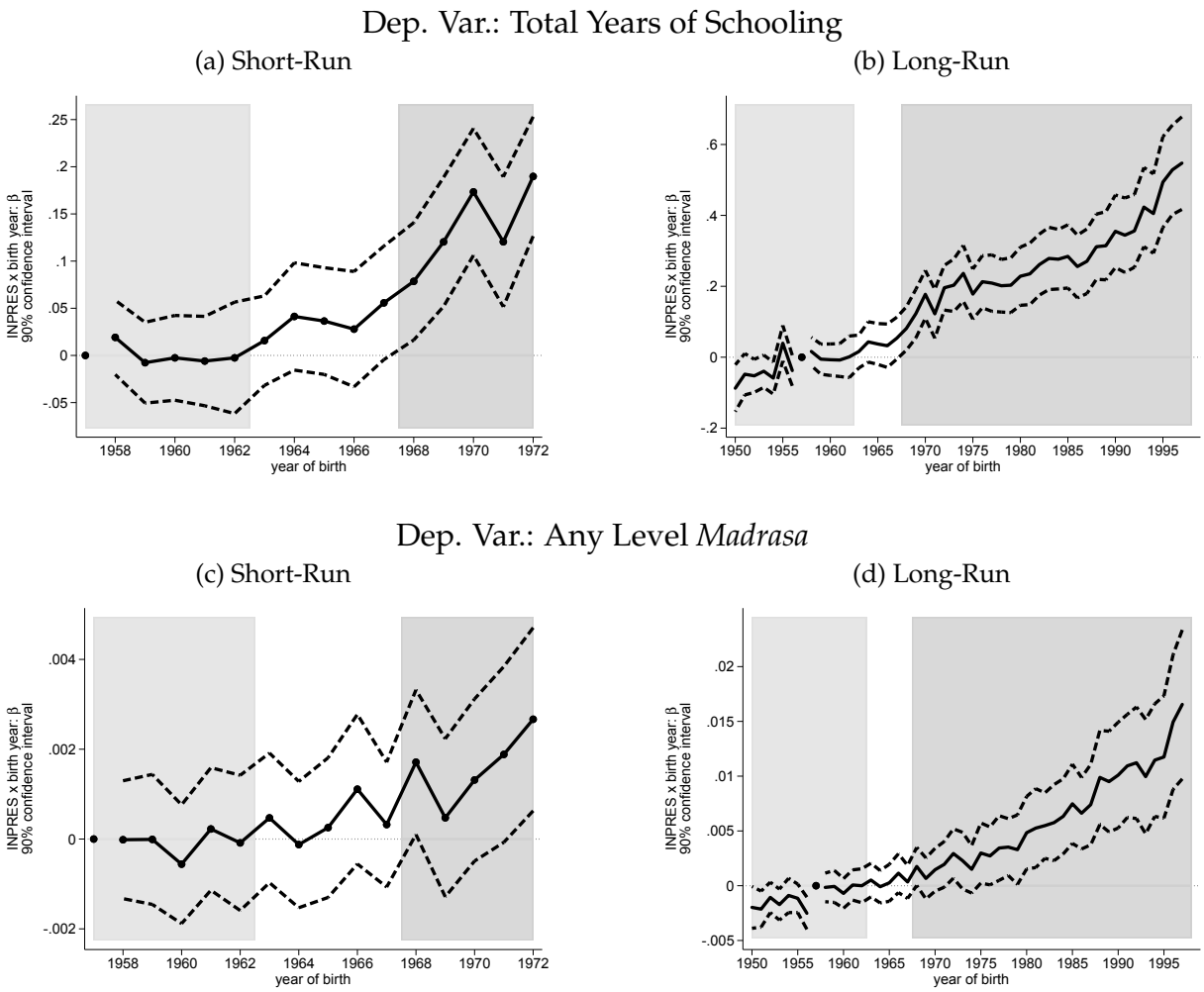
Notes: This figure reports mean Islamic school completion rates over time for districts with above-median (high) and below-median (low) INPRES intensity from 1973–1978. INPRES intensity is defined as the number of SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The rates are computed for cohorts from 1950 to 1994, pooling across annual *Susenas* data from 2012 to 2018, and they indicate whether the final level of education is elementary Islamic in panel (a), junior secondary Islamic in panel (b), senior secondary Islamic in panel (c), and any level Islamic in panel (d). These measures are computed over all individuals, while the corresponding Appendix Figure A.1 reports results conditional on individuals having completed the given level of education. The outcomes in panels (a)–(c) are the same as those in panel (a) of Table 2, and panel (d) is the same as the outcome in columns 3–4 of Table 3. The cohorts in gray correspond to those that would have fully completed primary schooling before the SD INPRES program rolled out in 1973. The vertical dotted line captures the first cohort, born in 1968, that would have been fully exposed to SD INPRES given that they would have been 6 years old just prior to school construction ensuing. The cohorts born between 1963 to 1967 correspond to the partially-exposed cohorts. See Section 4.1 for further discussion of these distinctions across cohorts.

Figure 2: INPRES Exposure and Islamic Schooling – Effects by Cohort



Notes: This figure reports age-specific estimates of β in equation (1) based on annual *Susenas* data from 2012 to 2018. INPRES intensity is defined as the number of SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The dependent variable in panels (a) and (b) is an indicator equal to one if the individual's final year of schooling was completed in an Islamic elementary school. Panels (c) and (d) are for an Islamic secondary school. Panels (a) and (c) correspond to the original cohort specification capturing variation in exposure to SD INPRES: fully-exposed born 1968–1972 (dark gray), partially-exposed born 1963–1967 (white), and unexposed born 1957–1962 (light gray). Panels (b) and (d) expand exposed and unexposed windows to 1950 and 2000, respectively, though we only include among later cohorts those with completed schooling. The 1957 cohort serves as the reference age, given age fixed effects, in both the short- and long-run specifications. All specifications include survey year dummies, district of birth dummies and year of birth dummies interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program in the district of birth. The dashed lines correspond to 90% confidence intervals with standard errors clustered by district of birth.

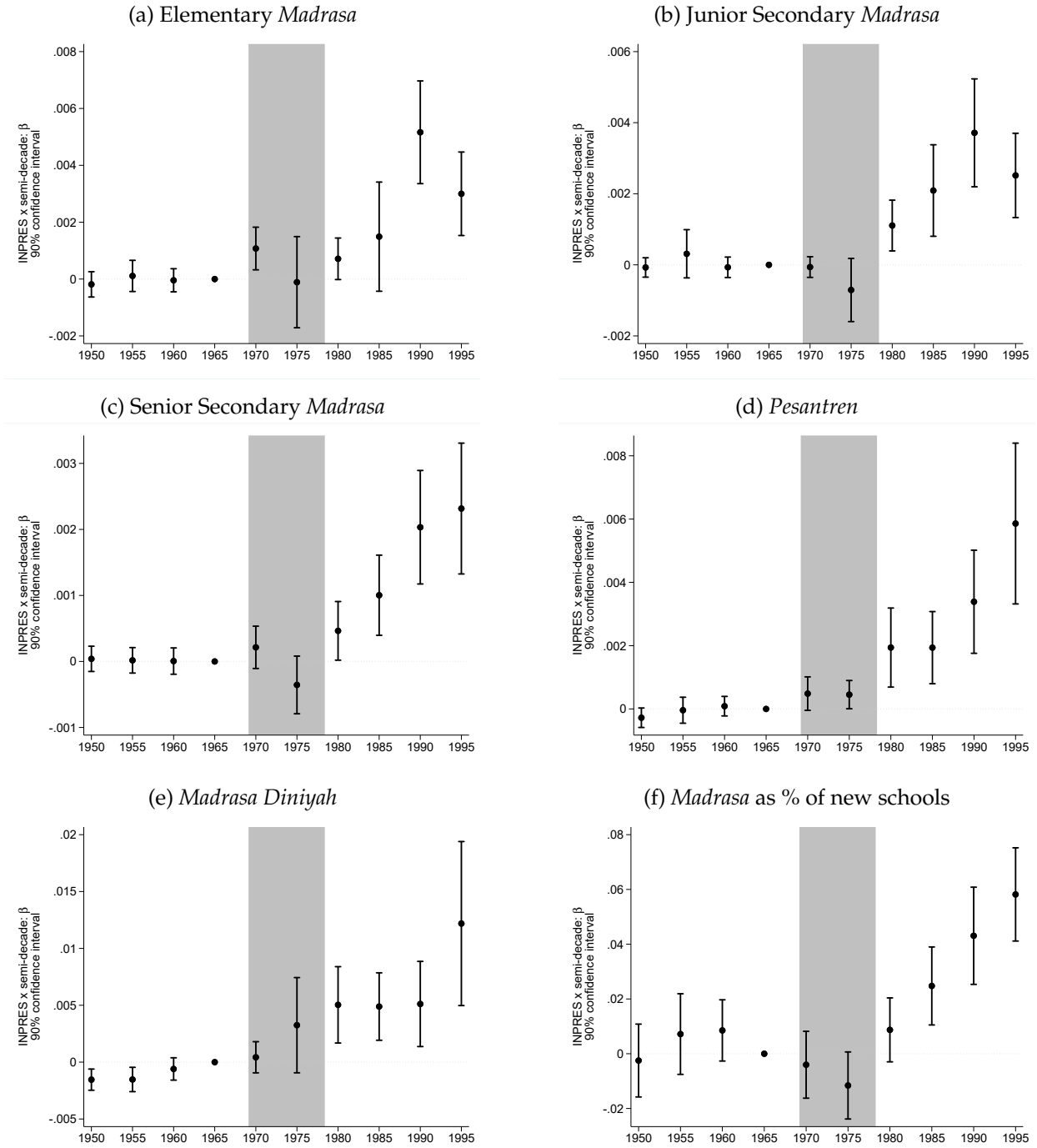
Figure 3: INPRES Exposure, Total Schooling and Islamic Education – Effects by Cohort



Notes: This figure reports results from the same specification as in Figure 2, looking here at total years of schooling in panels (a) and (b) and any Islamic schooling in panels (c) and (d). See the notes to Figure 2 for further details.

Figure 4: INPRES Intensity and Entry of Islamic Schools

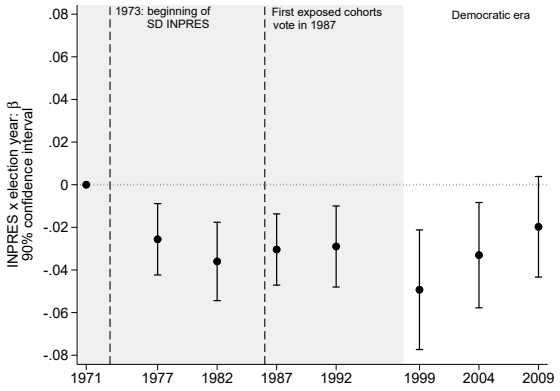
New schools per 1,000 children



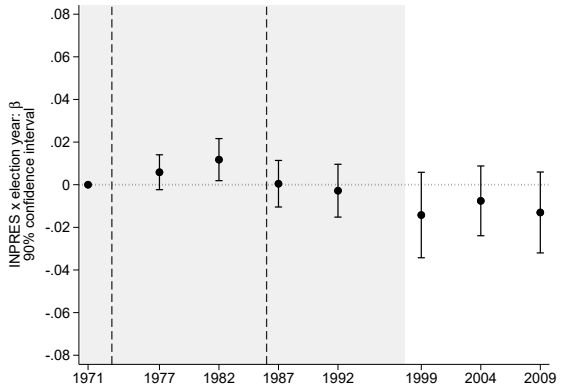
Notes: This figure reports semi-decade-specific estimates of β in equation (2) on a balanced district–year panel. INPRES intensity is defined as the number of SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The dependent variable measures: the number of elementary *madrasa* (panel a), junior secondary *madrasa* (b), senior secondary *madrasa* (c), *madrasa diniyah* (Islamic afternoon schools akin to Bible study) (d), *pesantren* (Islamic boarding schools across all levels) (e), and *madrasa* in a–c as a share of total schools (Islamic, non-Islamic private, and secular public) (f) established by semi-decade and by district per 1,000 children in 1971. The 1965-1969 period is the reference period given district fixed effects. The gray shading captures the INPRES construction period from 1973-78. The dot corresponds to the period-specific β, and the bars correspond to 90% confidence intervals with standard errors clustered at the district level. All specifications include district fixed effects and year fixed effects interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program.

Figure 5: INPRES Intensity and Electoral Support for Islam vs. the State

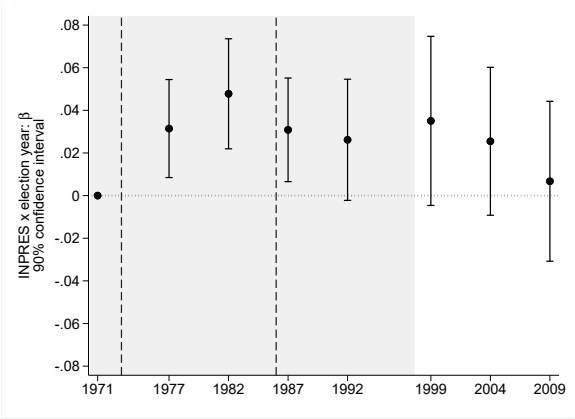
(a) State (*Golkar*, Suharto's Party)



(b) Islam (United Development Party, PPP)



(c) Islam vs. State (PPP minus *Golkar*)



Notes: This figure reports legislative-election-year-specific estimates of β in equation (2) on a balanced district–year panel. INPRES intensity is defined as the number of SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The dependent variable measures vote shares for *Golkar*, the party of Suharto and the New Order regime (panel a), the Islamic opposition party/ies (panel b), and the difference in vote shares between the two (panel c). In 1971, there were four Islamic parties that we group together, but from 1973 onward, the regime only allowed a single umbrella Islamic party, the United Development Party or PPP. The 1971 election was the last just prior to SD INPRES and serves as the reference election given district fixed effects. The gray area captures elections conducted under the New Order regime. The elections in 1987 and 1992 are the first in which INPRES-exposed cohorts would have been eligible to vote. The elections from 1999 onward took place after the fall of Suharto when the country democratized and both secular and Islamic parties proliferated. The bars correspond to 90% confidence intervals with standard errors clustered at the district level. All specifications include district fixed effects and year fixed effects interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program.

Tables

Table 1: Exposure to Islamic Education

Source	IFLS, 1993–2014		*Susenas*, 2012–18		Admin., 2019
Exposure Definition	at given level		at final level		enrolled
Cohort	all	in school	all	in school	in school
	(1)	(2)	(3)	(4)	(5)
Education Level					
All	20%	25%	7%	10%	21%
	N=64,141	N=10,573	N=5,240,958	N=1,652,990	N=59,387,784
Primary	11%	16%	4%	6%	13%
	N=55,912	N=10,572	N=3,187,724	N=1,263,12	N=29,309,849
Junior Secondary	23%	28%	12%	14%	23%
	N=32,221	N=4,282	N=1,394,572	N=629,061	N=13,708,973
Senior Secondary	20%	24%	6%	7%	11%
	N=21,522	N=2,587	N=1,476,917	N=389,880	N=12,412,256

Notes: This table summarizes Islamic education rates across multiple levels of schooling using three different sources. The 'All' row includes *madrasa* enrollment as well as (where possible) *pesantren* enrollment which cannot be assigned to specific grade levels. Hence Islamic education includes only *madrasa* in the Primary, Junior Secondary and Senior Secondary rows. The sample sizes reflect the total number of observations over which the percent exposed to Islamic education is computed. Columns 1 and 2 used the Indonesian Family Life Survey (IFLS) longitudinal records from 1993, 1997, 2000, 2007 and 2014. This data is representative of 83% of the Indonesian population and does not cover many districts. This survey records the complete educational history of respondents. Column 1 reports the exposure across all individuals spanning the five survey rounds. Column 2 restricts to the 2014 round and looks only at currently enrolled students. The 'All' row includes any *pesantren* enrollment. Columns 3 and 4 use the nationally-representative annual *Susenas* data from 2012–2018, which covers all districts and which we deploy in our main empirical analysis. Unlike the IFLS, this data only captures the type of the final year of schooling completed by respondents and only allows respondents to indicate *madrasa* but not *pesantren*. Column 3 reports the exposure across all individuals spanning the six *Susenas* rounds. The Primary, Junior Secondary, and Senior rows are restricted to individuals that completed exactly 6, 9, and 12 years of education, respectively. Column 4 restricts to individuals currently enrolled in school in each round of the survey. These estimates are computed using the sampling weights to obtain national representativeness. Column 5 uses administrative data for the 2019 school year from the Ministry of Education (MEC) and Ministry of Religion (MORA). The former records *madrasa* attendance while the latter records *pesantren* attendance. The 'All' row includes *pesantren* enrollment.

Table 2: INPRES Exposure and Islamic Schooling

	(1)	(2)	(3)	(4)	(5)	(6)
	(a) Highest Education Level: [...] Islamic					
	Elementary		Junior Secondary		Senior Secondary	
INPRES × young	-0.0013**	-0.0006	0.0020***	0.0047***	0.0011***	0.0033***
	(0.0005)	(0.0008)	(0.0005)	(0.0011)	(0.0003)	(0.0007)
Observations	839,026	3,938,728	839,026	3,938,728	839,026	3,938,728
Dependent Variable Mean	0.014	0.010	0.011	0.016	0.008	0.012
R^2	0.027	0.019	0.011	0.023	0.007	0.014
	(b) Highest Education Level is Islamic, Conditional on Completing [...]					
	6 Years		9 Years		12 Years	
INPRES × young	-0.0021***	0.0011	0.0053***	0.0097***	0.0005	0.0057***
	(0.0006)	(0.0013)	(0.0018)	(0.0021)	(0.0011)	(0.0015)
Observations	457,020	2,918,805	121,758	1,313,827	169,914	1,349,798
Dependent Variable Mean	0.025	0.030	0.073	0.103	0.038	0.056
R^2	0.044	0.049	0.076	0.081	0.036	0.049
Number of Districts	275	275	275	275	275	275
Cohorts aged 2-6 vs. 12-17 in 1974	✓		✓		✓	
———"——— $\leq$6 vs. $\geq$12 in 1974		✓		✓		✓

Notes: This table reports estimates of equation (1) based on annual *Susenas* data from 2012 to 2018. INPRES refers to SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The dependent variables include an indicator equal to one if the individual's final year of schooling was completed in an Islamic elementary (columns 1–2), junior secondary (columns 3–4), and senior secondary (columns 5–6). Panel (a) includes all individuals regardless of their years of schooling. Panel (b) includes only individuals with the given years of schooling corresponding to each level such that columns 1–2 look at Islamic elementary completion among individuals with 6 years of schooling, columns 3–4 look at Islamic junior secondary completion for those with 9 years, and columns 5–6 look at Islamic senior secondary completion for those with 12 years. All specifications include survey year dummies, district of birth dummies and year of birth dummies interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program in the district of birth. In odd-numbered columns, the sample is composed of all individuals aged 2–6 (young) or 12–17 in 1974. In even-numbered columns, the sample is composed of all individuals aged less than 6 (young) or more than 12 in 1974. * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table 3: Effects of INPRES Exposure on Quantity and Type of Schooling

	Years of Schooling		Highest Level Islamic		Islamic | Highest Level	
	(1)	(2)	(3)	(4)	(5)	(6)
INPRES × young	0.1392***	0.2824***	0.0017**	0.0070***	0.0005	0.0054***
	(0.0267)	(0.0479)	(0.0007)	(0.0020)	(0.0007)	(0.0016)
Observations	839,019	3,938,710	839,026	3,938,728	717,583	3,185,314
Number of Districts	275	275	275	275	275	275
Cohorts aged 2-6 vs. 12-17 in 1974	✓		✓		✓	
———"——— $\leq$6 vs. $\geq$12 in 1974		✓		✓		✓
Dependent Variable Mean	7.456	7.664	0.031	0.037	0.036	0.046
R^2	0.163	0.376	0.030	0.040	0.034	0.044

Notes: This table reports estimates of equation (1) based on annual *Susenas* data from 2012 to 2018. INPRES refers to SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The dependent variables include total years of schooling (columns 1–2), an indicator equal to one if the individual's final year of education is in an Islamic school (columns 3–4), conditional on the given years of schooling completed (columns 5–6). The outcome in columns 3–4 aggregates over all levels in panel (a) of Table 2, and columns 5–6 aggregate over panel (b). The specification is otherwise identical to that in Table 2; see the notes therein for details.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table 4: INPRES Exposure, Marriage Matching, and Intergenerational Transmission

	Spouse Education: Any Islamic		Elementary Islamic		*Child Education:* Jun. Sec. Islamic		Sen. Sec. Islamic	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
INPRES × young (Husband/Father)	0.0019**		-0.0010**		0.0011*		0.0025**	
	(0.0009)		(0.0004)		(0.0006)		(0.0012)	
INPRES × young (Wife/Mother)		0.0000		-0.0009**		0.0007		0.0022**
		(0.0007)		(0.0004)		(0.0006)		(0.0010)
Observations	725,803	544,204	304,048	246,066	304,048	246,066	304,048	246,066
Number of Districts	275	275	275	275	275	275	275	275
Dependent Variable Mean	0.039	0.024	0.005	0.005	0.026	0.026	0.034	0.033
R^2	0.035	0.024	0.014	0.014	0.026	0.028	0.029	0.028

Notes: This table reports estimates of equation (1). INPRES refers to SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The dependent variable is no longer an individual's own Islamic education exposure but rather his spouse's Islamic education in column 1, her spouse's education in column 2, and their children's education in columns 3–8. We restrict to co-resident children that are at least 18 years old and hence likely to have completed their secondary schooling. The outcomes in columns 1 and 2 parallel those in columns 3–4 of Table 3, and the outcomes in columns 3–8 parallel those in panel (a) of Table 2. All of these specifications are restricted to children with mothers and fathers (or to husbands and wives) that fall within the original birth cohorts: aged 2–6 (young) or 12–17 in 1974. The regressions additionally control for child birth cohort fixed effects. The specification is otherwise identical to that in Table 2; see the notes therein for details.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by the parent's district of birth.

Table 5: INPRES Intensity and Entry of Islamic Schools

New schools per 1,000 children

	New *Madrasa*				New *Pesantren*
	Elementary	Junior Sec.	Senior Sec.	*Diniyah*	All
	(1)	(2)	(3)	(4)	(5)
	(a) Baseline				
INPRES × post-1972	0.0043***	0.0042***	0.0023***	0.0095***	0.0029***
	(0.0009)	(0.0010)	(0.0006)	(0.0028)	(0.0007)
Observations	27,500	27,500	27,500	27,500	27,500
Number of Districts	275	275	275	275	275
Avg. new establishments/year	0.008	0.006	0.003	0.019	0.005
R^2	0.168	0.192	0.233	0.238	0.224
	(b) Heterogeneity by Islamic Assets (*waqf*) and Muslim Share				
INPRES × post-1972	-0.0008	-0.0022***	-0.0009**	-0.0073**	-0.0009
	(0.0010)	(0.0007)	(0.0004)	(0.0030)	(0.0009)
INPRES × post-1972 × *waqf*, 1972	0.0209**	0.0221***	0.0108**	-0.0133	0.0061
	(0.0096)	(0.0084)	(0.0051)	(0.0397)	(0.0073)
INPRES × post-1972 × Muslim share, 1972	0.0050***	0.0064***	0.0032***	0.0235***	0.0046**
	(0.0017)	(0.0017)	(0.0010)	(0.0066)	(0.0018)
Observations	27,300	27,300	27,300	27,300	27,300
Number of Districts	273	273	273	273	273
Avg. new establishments/year	0.008	0.006	0.003	0.019	0.005
R^2	0.187	0.221	0.266	0.270	0.248

Notes: This table reports estimates of equation (2). This specification is estimated on a panel at the district-year level spanning 1920–2019. INPRES refers to SD INPRES schools constructed from 1973-78 per 1,000 children in 1971. The dependent variables are measured as new schools of a given type created per district per year and per 1,000 children in 1971. *Madrasa diniyah* and *pesantren* are Islamic afternoon schools and Islamic boarding schools, respectively. Panel (a) is the baseline while panel (b) allows the effects of INPRES to vary with the size of Islamic endowments (*waqf*) at the district-level in 1972. The measure captures total *waqf* land (in square kilometers) held by mosques. All specifications include district fixed effects and year fixed effects interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program. We lose two districts in panel (b) on account of missing data on *waqf* endowments.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district.

Table 6: Islam–State Competition at the Local Level

	Islamic School Entry		
	Elem.=1 Jun. Sec.=0	Elem.=0 Jun. Sec.=1	Elem.=1 Jun. Sec.=1
	(1)	(2)	(3)
	(a) Entry 1973–1983		
SD INPRES built in village, 1973–78	0.002	0.005***	0.0001
	(0.002)	(0.001)	(0.0005)
SD INPRES saturation at subdistrict level	-0.012	0.009***	0.002
	(0.017)	(0.002)	(0.002)
Number of Villages		75,090	
Share of Villages with Given Profile	0.049	0.009	0.004
	(b) Entry 1984–1998		
SD INPRES built in village, 1973–78	0.006***	0.015***	0.004***
	(0.002)	(0.002)	(0.001)
SD INPRES saturation at subdistrict level	0.029***	0.022***	0.011***
	(0.007)	(0.007)	(0.003)
Number of Villages		75,090	
Share of Villages with Given Profile	0.035	0.039	0.009

Notes: This table presents average marginal effects from a village-level multinomial logit regression relating SD INPRES entry to Islamic school entry at the village level with four categorical outcomes: no *madrasa* entry (the base, reference), elementary *madrasa* but not junior secondary *madrasa*, junior secondary *madrasa* but not elementary *madrasa*, and entry of both elementary *madrasa* and junior secondary *madrasa*. The reported regressors are an indicator for whether the given village had any SD INPRES schools constructed from 1973 to 1978, and the share of all villages in the subdistrict (a proxy for the local education market) with any SD INPRES construction from 1973 to 1978. The latter excludes the own village from the subdistrict share calculation. Panel (a) reports estimates from a regression with the dependent variable capturing entry from 1973–1983, and panel (b) looks at the remaining years of the Suharto regime from 1984–1998. We end in 1983 as this was the culmination of the five-year planning horizon under the initial SD INPRES plan. The marginal effects are with reference to villages with no *madrasa* entry over the given time horizon. Each regression also includes controls for the usual district-level controls (1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program).
* $p<0.1$, ** $p<0.05$, *** $p<0.01$. Robust standard errors clustered by district.

Table 7: Curriculum Differentiation in Islamic Schools

	All Levels (1)	Primary (2)	Jun. Sec. (3)	Sen. Sec. (4)
	(a) Islamic Subject Share			
INPRES × post-1972	0.012*	0.012*	0.021***	-0.050**
	(0.007)	(0.006)	(0.007)	(0.023)
Dependent Variable Mean	0.262	0.255	0.269	0.268
	(b) *Pancasila*/Civic Share			
INPRES × post-1972	-0.001	n/a	-0.004*	0.008***
	(0.001)		(0.002)	(0.003)
Dependent Variable Mean	0.026		0.060	0.041
	(c) Arabic Share			
INPRES × post-1972	0.002	0.003*	0.001	0.014***
	(0.001)	(0.001)	(0.002)	(0.004)
Dependent Variable Mean	0.056	0.051	0.064	0.057
	(d) *Bahasa* Indonesia Share			
INPRES × post-1972	-0.003*	-0.001	-0.006*	0.002
	(0.002)	(0.003)	(0.003)	(0.002)
Dependent Variable Mean	0.055	0.007	0.121	0.081
Number of Observations	16,889	8,559	5,077	3,251
Number of Districts	263	245	250	225

Notes: This table presents estimates from a modified version of equation (2). We use an unbalanced panel at the school-grade × district × year level, including only years in which the given district had any schools enter. The estimating equation is $y_{sjt} = \alpha + \beta(INPRES_j \times Post1972_t) + (\mathbf{X}_j \times Post1972_t)'\mathbf{\Theta} + \eta_s + \mu_j + \delta_t + \varepsilon_{isjt}$, where s is a school-grade and other terms are defined as in equation (2). The dependent variable measures the mean share of weekly instruction time devoted to Islamic subject material in panel (a), *Pancasila* and civic education in panel (b), Arabic instruction in panel (c), and instruction of the national language and literature, *Bahasa* Indonesia in panel (d). The measures come from the SIAP registry for the 2018–19 school year, and we categorize subject material using a procedure detailed in Appendix C. It is not possible to identify *Pancasila* and civic subjects for primary schools (see the discussion in the text) and hence the omission of column 2 in panel (b). All specifications include district fixed effects, grade level fixed effects, year-of-entry fixed effects, and a post-1972 dummy interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district.

Table 8: INPRES Exposure, Identity, and Religiosity

	(a) Identity, Proxied by Language					
	National Language Use at Home			Arabic Literacy		
Which Sub-Sample?	All	Muslims	Non-Muslims	All	Islamic-Educated	Secular-Educated
	(1)	(2)	(3)	(4)	(5)	(6)
INPRES × young	-0.0018	-0.0040**	-0.0001	0.0046*	0.0179*	0.0038
	(0.0014)	(0.0017)	(0.0020)	(0.0028)	(0.0103)	(0.0027)
Observations	31,678,510	27,811,101	3,867,324	839,026	25,935	813,087
Number of Districts	273	273	273	275	275	275
Dep. Var. Mean	0.166	0.150	0.275	0.343	0.688	0.332

	(b) Islamic Piety and Practice							
	Pray 5x daily	Fast during Ramadan	Reads the Qur'an	Prayer: Friday	Prayer: *Sunna*	Prayer: Group	Pay *Zakat*	**Index**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
INPRES × young	0.0615	0.0029	0.0666**	0.0614**	0.0886***	0.0847**	-0.0138	0.0537***
	(0.0400)	(0.0217)	(0.0318)	(0.0280)	(0.0239)	(0.0343)	(0.0220)	(0.0149)
Observations	1,864	1,865	1,860	1,856	1,846	1,859	1,860	1,866
Number of Districts	150	150	150	150	150	150	150	150
Dep. Var. Mean	0.655	0.811	0.267	0.226	0.176	0.246	0.832	0.436

Notes: This table reports estimates of equation (1) using data from multiple sources. The dependent variable in columns 1–3 of panel (a) is an indicator for whether the individual speaks the national language, *Bahasa* Indonesia, as his/her main language at home. The data come from the complete-count 2010 Population Census. Columns 4–6 in panel (a) look at an indicator for whether an individual reports literacy in Arabic in the annual *Susenas* data from 2012 to 2018. Panel (a) sample splits across Muslims and non-Muslims in the Population Census (where we do not observe Islamic education) and across Islamic-educated and non-Islamic-educated in *Susenas* (where we do not observe religion). The specifications in panel (a) are restricted to mothers and fathers (husbands and wives) that fall within the original birth cohorts: aged 2–6 (young) or 12–17 in 1974. The dependent variables in panel (b) include indicators for whether an individual reports partaking in a range of Islamic practices as reported in the Pepinsky et al. (2018) survey data from 2008. The final column is a mean index across all 7 prior outcomes. The sample in panel (b) is restricted to Muslim respondents and compares individuals aged 6 or less (young) in 1974 with individuals aged 12 or more in 1974. The national language regressions in columns 1–3 of panel (a) also include around 1,200 ethnicity fixed effects. The specification is otherwise identical to that in Table 2; see the notes therein for details.

* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district (of birth).

Table 9: INPRES Exposure and Ideology

	(1)	(2)	(3)	(4)	(5)
	(a) Citizens				
	Supports *Pancasila*			Supports *Sharia*	
Which Sub-Sample?	All	Non-Muslims	Muslims	Subjective Muslims	Objective Muslims
INPRES × young	0.0025	0.2450**	0.0088	-0.0040	-0.0311
	(0.0315)	(0.1179)	(0.0378)	(0.0222)	(0.0328)
Number of Individuals	2,034	205	1,798	1,790	1,703
Number of Districts	159	33	145	145	145
Dep. Var. Mean	0.840	0.927	0.829	0.830	0.857
	(b) Candidates				
	Golkar Party	United Development Party (PPP)	Platform Appeal		
			Nation Building	Islam	Nation Building Excl. Islam
INPRES × young	-0.0106*	0.0073*	-0.0112*	0.0019	-0.0111**
	(0.0059)	(0.0043)	(0.0059)	(0.0021)	(0.0055)
Number of Candidates	17,710	17,710	17,710	17,710	17,710
Number of Districts	273	273	273	273	273
Dep. Var. Mean	0.119	0.046	0.117	0.027	0.111

Notes: This table reports estimates of equation (1) for ideological outcomes. The dependent variable in columns 1–3 of panel (a) is an indicator for whether the individual supports the national, inclusive secular ideology of *Pancasila*, or thinks some other ideology would be preferable. The data come from the Pepinsky et al. (2018) survey data from 2008, and we examine the outcome separately for Muslims and non-Muslims. Columns 4 and 5 consider measures of support for the *Sharia* law. Column 4 is an indicator for whether the Muslim respondent express strong or very strong support for the implementation of *Sharia* law. Column 5 is a mean index across several specific components of *Sharia* law (e.g., prohibiting interest, mandating *hijab* for women), each of which is elaborated in Appendix Table A.16. The specification in panel (a) compares individuals aged 6 or less (young) in 1974 with individuals aged 12 or more in 1974. The dependent variables in panel (b) are based on legislative candidates in 2019. Columns 1 and 2 are indicators for whether the candidates are running on the party tickets of *Golkar* (Suharto's party) and the Islamic United Development Party (PPP), respectively. Columns 3–5 are indicators for whether the candidate's campaign platform mentions concepts that appeal to Indonesian nation building and *Pancasila* (column 3), to Islam and religious themes (column 4), and nation building exclusive of Islam and religious themes. The specifications in panel (b) are restricted to the original birth cohorts: aged 2–6 (young) or 12–17 in 1974. The specification is otherwise identical to that in Table 2; see the notes therein for details.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district.

Appendix

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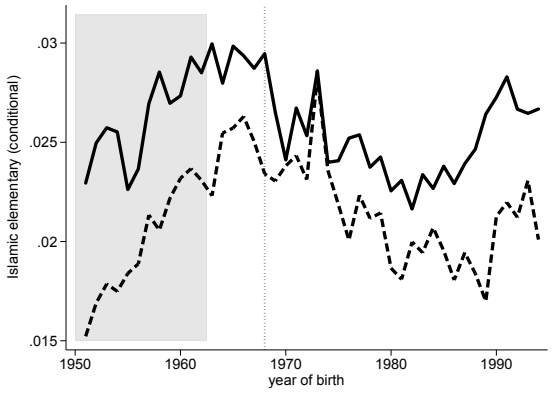
A Further Empirical Results

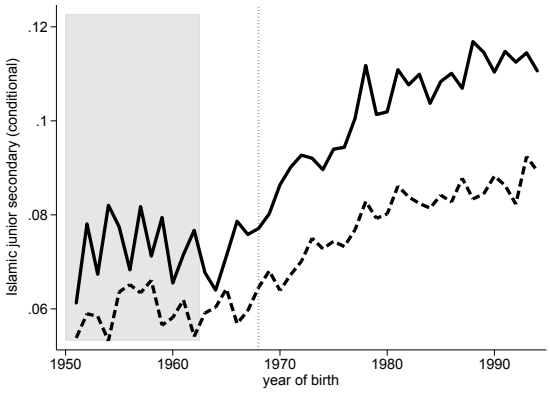
Figures

Figure A.1: INPRES Exposure and Islamic Schooling | Years of Schooling

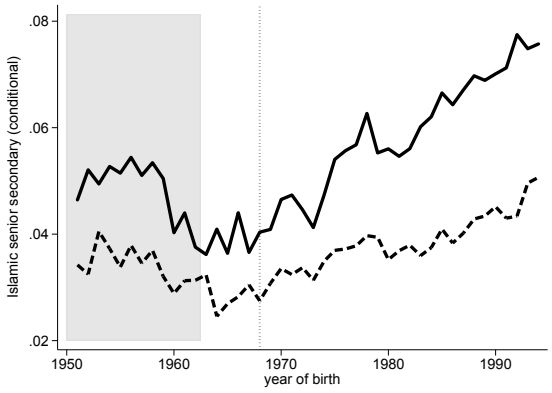
(a) Elementary *Madrasa*



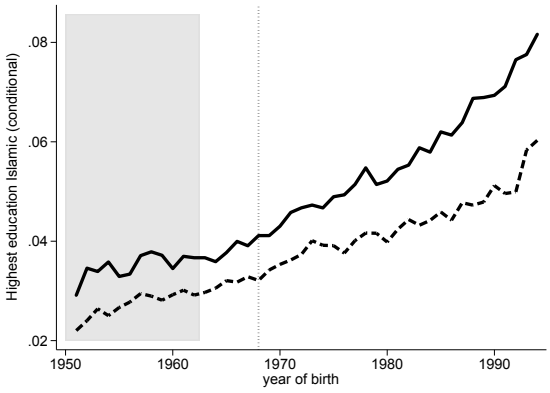
(b) Junior Secondary *Madrasa*



(c) Senior Secondary *Madrasa*

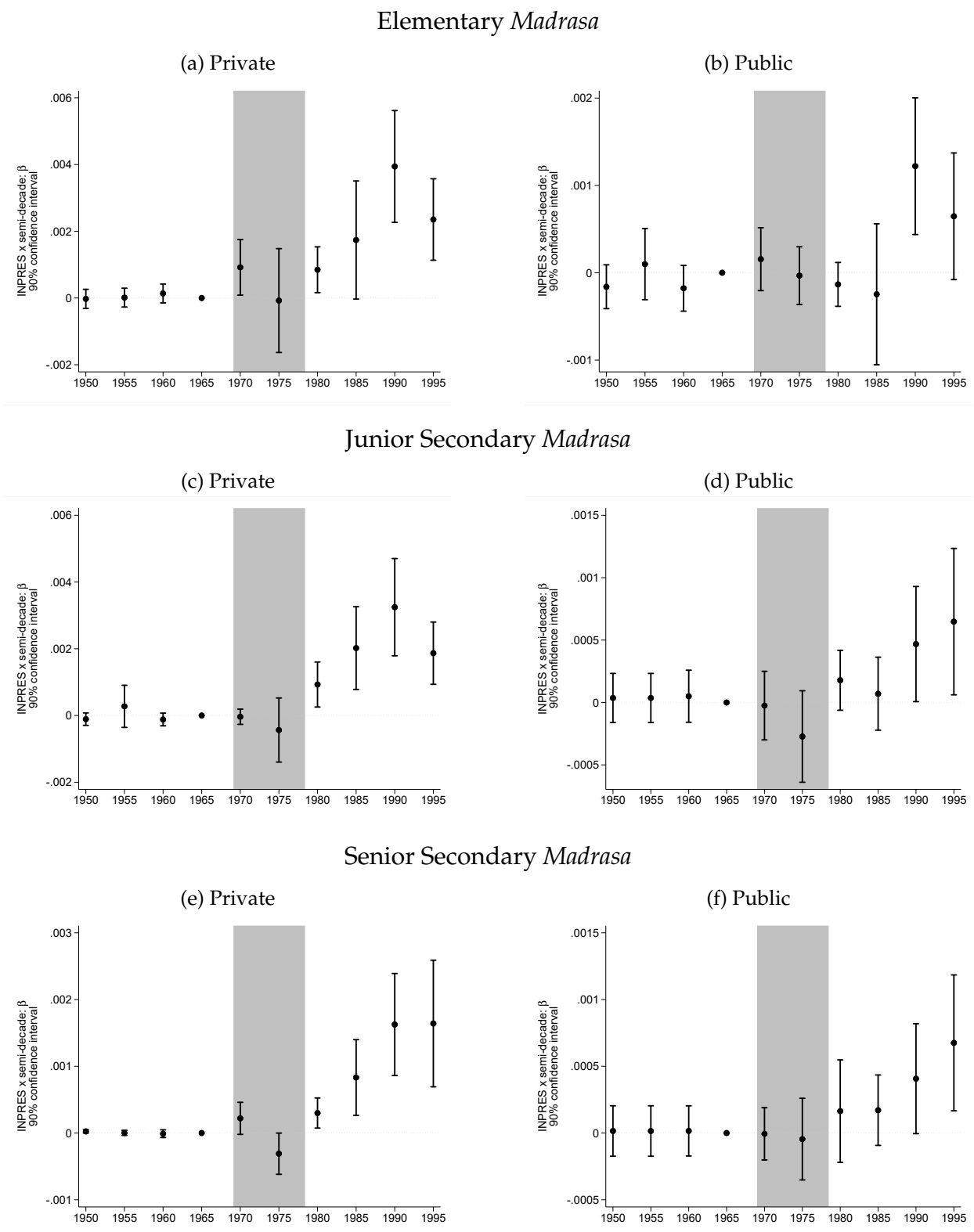


(d) Any Level *Madrasa*



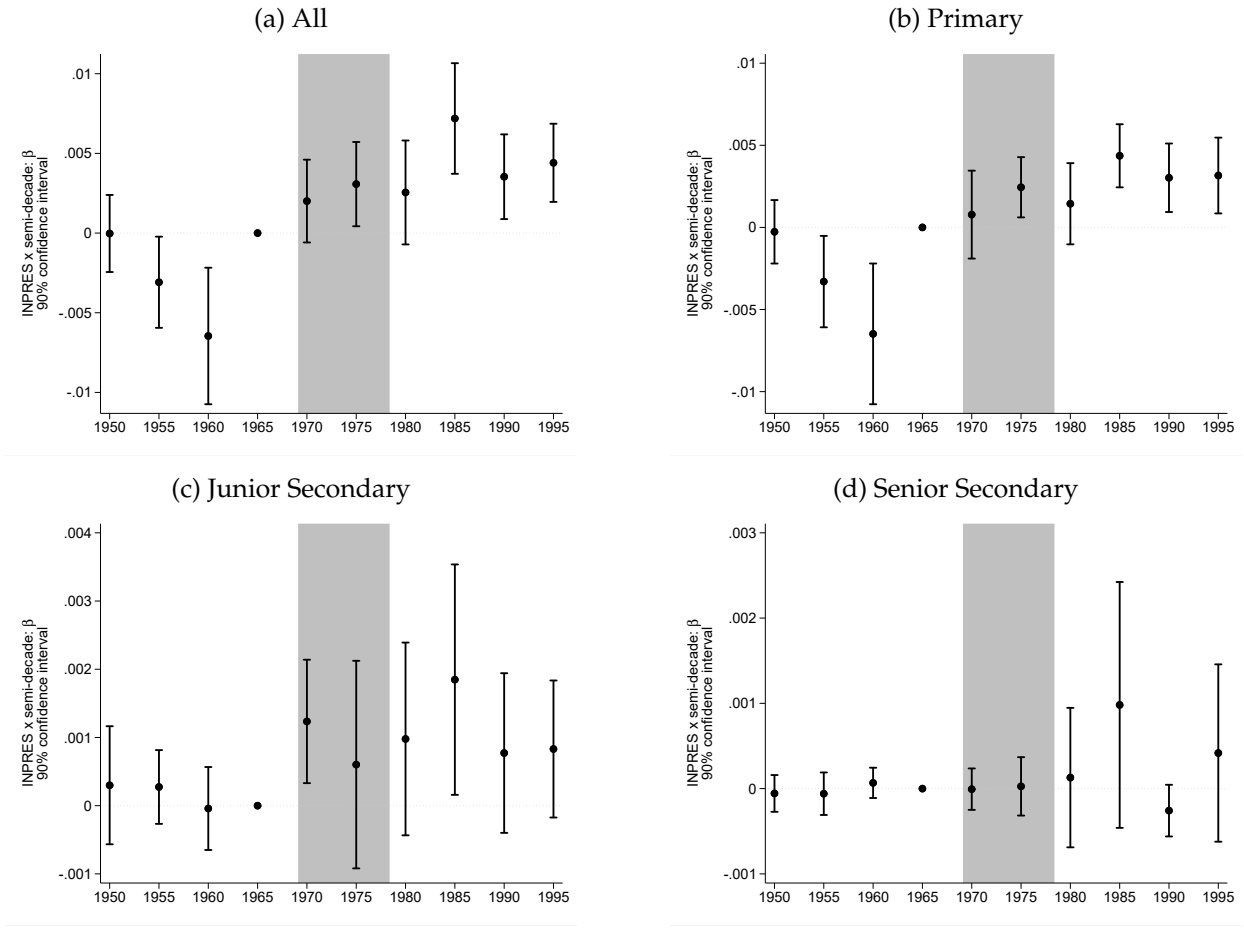
Notes: This figure reports analogous results to those in Figure 1, but here we restrict to individuals that completed the given years of education corresponding to the level at hand: 6 for elementary, 9 for junior secondary, and 12 for senior secondary. The outcomes in panels (a)–(c) are the same as those in panel (b) of Table 2, and panel (d) is the same as the outcome in columns 5–6 of Table 3.

Figure A.2: INPRES Intensity and Entry of Private and Public Islamic Schools



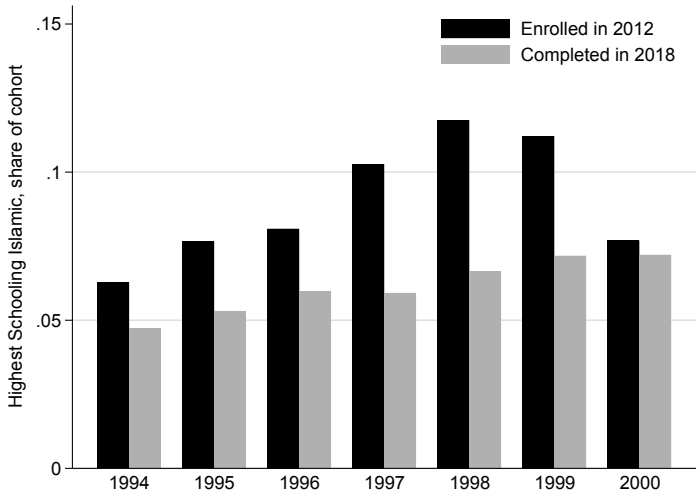
Notes: This figure disaggregates the Islamic school entry outcomes in Figure 4 (panels a–c) into private and public Islamic schools. The latter comprise 8% of all Islamic schools. All dependent variables are normalized by the 1971 child population.

Figure A.3: INPRES Intensity and Entry of Private non-Islamic Schools



Notes: This figure reports semi-decade-specific estimates of β in equation (2) on a balanced district–year panel. The dependent variable measures: the number of private non-Islamic schools across all levels (panel a), elementary (b), junior secondary (c), and senior secondary (d). Appendix C describes how we isolate secular schools among all private schools in the MEC registry.

Figure A.4: Islamic School Attendance vs. Completion in Repeated Cohorts



Notes: This figure uses repeated observations of identical cohorts in the 2012 and 2018 *Susenas* rounds. We focus on cohorts born between 1994 and 1999 which were young enough to have been enrolled in school in 2012 but old enough to have completed high school by 2018. Black bars show Islamic attendance rates measured in 2012 while grey bars indicate Islamic completion rates in 2018.

Tables

Table A.1: INPRES Allocation and Baseline *Madrasa*

	INPRES Schools	INPRES Schools per 1,000 children			
	(1)	(2)	(3)	(4)	(5)
Madrasas in District by 1971	5.628***				
	(1.168)				
Madrasas by 1971 (per 1,000 children)		2.248*		1.025*	1.367**
		(1.271)		(0.524)	(0.577)
School Enrollment in 1971			0.064***	0.049***	0.042***
			(0.015)	(0.010)	(0.008)
Child Population in 1971			0.008***	0.008***	0.006***
			(0.002)	(0.001)	(0.002)
Enrolled Child Population			-0.001***	-0.001***	-0.001***
			(0.000)	(0.000)	(0.000)
Water and Sanitation Program				0.847***	1.327***
				(0.220)	(0.137)
Waqf Assets in District by 1971				0.308	0.580*
				(0.377)	(0.330)
Observations	273	273	273	273	273
Policy Controls			✓	✓	✓
Other Controls				✓	✓
Province Fixed Effects					✓
R^2	0.156	0.028	0.263	0.388	0.718

Notes: This table reports OLS estimates from a regression of the number of SD INPRES schools built between 1973–78 on district-level covariates. SD INPRES schools and *madrasa* are measured in absolute terms in column 1 and per 1,000 children in columns 2–5.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors in parentheses.

Table A.2: INPRES Exposure and Islamic Schooling by Gender

	(1)	(2)	(3)	(4)	(5)	(6)
	Highest Education Level: [...] Islamic					
	Elementary		Junior Secondary		Senior Secondary	
	(a) **Women**					
INPRES × young	-0.0011*	0.0001	0.0023***	0.0059***	0.0011**	0.0031***
	(0.0006)	(0.0011)	(0.0006)	(0.0013)	(0.0005)	(0.0007)
p-value (women-men)	0.350	0.068	0.249	0.000	0.985	0.598
Observations	416,125	1,986,758	416,125	1,986,758	416,125	1,986,758
Dependent Variable Mean	0.016	0.011	0.011	0.018	0.007	0.013
R^2	0.034	0.023	0.013	0.026	0.009	0.017
	(b) **Men**					
INPRES × young	-0.0015***	-0.0012**	0.0018***	0.0035***	0.0011***	0.0033***
	(0.0005)	(0.0006)	(0.0005)	(0.0008)	(0.0003)	(0.0007)
Observations	422,901	1,951,970	422,901	1,951,970	422,901	1,951,970
Dependent Variable Mean	0.011	0.008	0.010	0.014	0.008	0.012
R^2	0.022	0.016	0.011	0.020	0.007	0.013
Number of Districts	275	275	275	275	275	275
Cohorts aged 2-6 vs. 12-17 in 1974	✓		✓		✓	
———"——— $\leq$6 vs. $\geq$12 in 1974		✓		✓		✓

Notes: This table reports estimates of equation (1) based on annual *Susenas* data from 2012 to 2018. Panels (a) and (b) report results separately for women and men, respectively. The dependent variables (as in panel (a) of Table 2) include an indicator equal to one if the individual's final year of schooling was completed in an Islamic elementary (columns 1–2), junior secondary (columns 3–4), and senior secondary (columns 5–6). All specifications include survey year dummies, district of birth dummies and year of birth dummies interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program in the district of birth. In odd-numbered columns, the sample is composed of all individuals aged 2–6 (young) or 12–17 in 1974. In even-numbered columns, the sample is composed of all individuals aged less than 6 (young) or more than 12 in 1974. The p-values in panel (a) correspond to a test of the difference in coefficients across the two panels.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.3: Effects of INPRES Exposure on Quantity and Type of Schooling by Gender

	Years of Schooling		Highest Level Islamic		Islamic | Highest Level	
	(1)	(2)	(3)	(4)	(5)	(6)
	(a) **Women**					
INPRES × young	0.0925***	0.2616***	0.0021**	0.0086***	0.0005	0.0058***
	(0.0291)	(0.0524)	(0.0009)	(0.0023)	(0.0009)	(0.0017)
p-value(women-men)	0.007	0.323	0.190	0.000	0.987	0.336
Observations	416,123	1,986,749	416,125	1,986,758	349,899	1,564,984
Dependent Variable Mean	6.864	7.373	0.034	0.041	0.041	0.052
R^2	0.202	0.420	0.035	0.045	0.041	0.050
	(b) **Men**					
INPRES × young	0.1735***	0.2772***	0.0012*	0.0053***	0.0004	0.0048***
	(0.0308)	(0.0485)	(0.0007)	(0.0016)	(0.0007)	(0.0015)
Observations	422,896	1,951,961	422,901	1,951,970	367,684	1,620,329
Dependent Variable Mean	8.039	7.959	0.028	0.034	0.032	0.040
R^2	0.143	0.350	0.027	0.036	0.030	0.038
Number of Districts	275	275	275	275	275	275
Cohorts aged 2-6 vs. 12-17 in 1974	✓		✓		✓	
———"——— ≤6 vs. ≥12 in 1974		✓		✓		✓

Notes: This table reports estimates of equation (1) based on annual *Susenas* data from 2012 to 2018. Panels (a) and (b) report results separately for women and men, respectively. The dependent variables (as in Table 3) include total years of schooling (columns 1–2), an indicator equal to one if the individual's final year of education is in an Islamic school (columns 3–4), conditional on the given years of schooling completed (columns 5–6). All specifications include survey year dummies, district of birth dummies and year of birth dummies interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program in the district of birth. In odd-numbered columns, the sample is composed of all individuals aged 2–6 (young) or 12–17 in 1974. In even-numbered columns, the sample is composed of all individuals aged less than 6 (young) or more than 12 in 1974.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.4: INPRES Exposure and Islamic Schooling Using *Podes* 1980

	(1)	(2)	(3)	(4)	(5)	(6)
	(a) Highest Education Level: [...] Islamic					
	Elementary		Junior Secondary		Senior Secondary	
INPRES (Podes 80) × young	-0.0016*	-0.0013	0.0023***	0.0064***	0.0017***	0.0051***
	(0.0008)	(0.0013)	(0.0007)	(0.0016)	(0.0005)	(0.0011)
Observations	836,694	3,928,356	836,694	3,928,356	836,694	3,928,356
Dependent Variable Mean	0.014	0.010	0.011	0.016	0.008	0.012
R^2	0.027	0.019	0.011	0.023	0.007	0.014
	(b) Highest Education Level is Islamic, Conditional on Completing [...]					
	6 Years		9 Years		12 Years	
INPRES (Podes 80) × young	-0.0026***	-0.0013	0.0018	0.0090**	0.0008	0.0084***
	(0.0010)	(0.0020)	(0.0031)	(0.0044)	(0.0020)	(0.0029)
Observations	456,193	2,912,066	121,460	1,310,220	169,080	1,344,561
Dependent Variable Mean	0.025	0.030	0.073	0.103	0.038	0.056
R^2	0.044	0.049	0.076	0.081	0.036	0.048
Number of Districts	273	273	273	273	273	273
Cohorts aged 2-6 vs. 12-17 in 1974	✓		✓		✓	
———"——— $\leq$6 vs. $\geq$12 in 1974		✓		✓		✓

Notes: This table reports estimates of Table 2 using an alternative measure of INPRES schools from village-level administrative data in 1980 aggregated to the district-level for comparison with our baseline measure from Duflo (2001). The specification is otherwise identical to that in Table 2; see the notes therein for details.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.5: Effect of INPRES Exposure on Quantity and Type of Schooling Using *Podes* 1980

	Years of Schooling		Highest Level Islamic		Islamic | Highest Level	
	(1)	(2)	(3)	(4)	(5)	(6)
INPRES (Podes 80) × young	0.1176***	0.2541***	0.0023**	0.0097***	0.0007	0.0074***
	(0.0443)	(0.0756)	(0.0012)	(0.0032)	(0.0011)	(0.0024)
Observations	836,687	3,928,338	836,694	3,928,356	715,696	3,177,841
Number of Districts	273	273	273	273	273	273
Cohorts aged 2-6 vs. 12-17 in 1974	✓		✓		✓	
———"——— ≤6 vs. ≥12 in 1974		✓		✓		✓
Dependent Variable Mean	7.450	7.658	0.031	0.037	0.036	0.046
R^2	0.162	0.375	0.030	0.040	0.034	0.044

Notes: This table reports estimates of Table 3 using an altenrative measure of INPRES schools from village-level administrative data in 1980 aggregated to the district-level for comparison with our baseline measure from Duflo (2001). The specification is otherwise identical to that in Table 3; see the notes therein for details.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.6: Why the Supply Side Response to SD INPRES Matters

	Years of Schooling		Any Secondary Schooling		Any Islamic Secondary	
School Construction, '73-8	(1)	(2)	(3)	(4)	(5)	(6)
INPRES primary × young	0.138***	0.140***	0.006	0.006	0.003***	0.003***
	(0.027)	(0.027)	(0.004)	(0.004)	(0.001)	(0.001)
state secondary × young		0.472		0.185*		-0.015
		(0.950)		(0.109)		(0.023)
Islamic primary × young		0.063		-0.026		0.016***
		(0.156)		(0.017)		(0.005)
Islamic secondary × young		3.484***		0.350**		0.063*
		(1.270)		(0.158)		(0.036)
Number of Observations	836,687	836,687	836,687	836,687	836,687	836,687
Number of Districts	273	273	273	273	273	273
Dependent Variable Mean	7.450	7.450	0.414	0.414	0.018	0.018

Notes: This table reports estimates of equation (1) for years of schooling (columns 1–2), an indicator for any secondary schooling (columns 3–4), and an indicator for any Islamic secondary schooling (columns 5–6). The specification in odd-numbered columns is identical to that in Tables 2 and 3. We consider cohorts aged 2–6 (young) or 12–17 in 1974. The even-numbered columns include additional interactions of the young (exposed cohort) dummy with the number of state secondary, Islamic primary, and Islamic secondary schools constructed (per 1,000 children in 1971) from 1973 to the 1978, the same window in which INPRES primary schools were constructed. The specification is otherwise identical to that in Tables 2 and 3; see the notes therein for details.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.7: Intergenerational Transmission of Islamic Schooling (OLS)

	Child's Education: [. . .] Islamic							
	Elem. (1)	Jun. Sec. (2)	Sen. Sec. (3)	Any (4)	Elem. (5)	Jun. Sec. (6)	Sen. Sec. (7)	Any (8)
Father's education:								
elementary Islamic	0.0946***	0.0914***	0.0764***					
	(0.0088)	(0.0072)	(0.0076)					
junior secondary Islamic	0.0013	0.0834***	0.0947***					
	(0.0023)	(0.0076)	(0.0085)					
senior secondary Islamic	0.0016	0.0233***	0.1545***					
	(0.0020)	(0.0072)	(0.0118)					
any Islamic				0.2015***				
				(0.0090)				
Mother's education:								
elementary Islamic					0.0897***	0.0932***	0.0826***	
					(0.0076)	(0.0074)	(0.0068)	
junior secondary Islamic					0.0036	0.0625***	0.1003***	
					(0.0024)	(0.0066)	(0.0109)	
senior secondary Islamic					-0.0004	0.0109*	0.1390***	
					(0.0019)	(0.0059)	(0.0113)	
any Islamic								0.2008***
								(0.0093)
Observations	304,048	304,048	304,048	304,048	246,066	246,066	246,066	246,066
Number of Districts	275	275	275	275	275	275	275	275
Dependent Variable Mean	0.005	0.026	0.034	0.061	0.005	0.026	0.033	0.060

Notes: This table reports correlations of parental Islamic schooling and children's Islamic schooling. Columns 1–4 are for father's Islamic schooling and 5–8 for mother's. The sample in columns 1–4 (5–8) is the same as in odd-numbered (even-numbered) columns 3–8 of Table 4. The outcomes parallel those in panel (a) of Table 2. All of these specifications are restricted to children with mothers and fathers fall within the original birth cohorts: aged 2–6 (young) or 12–17 in 1974. The regressions additionally control for child birth cohort fixed effects. The specification is otherwise identical to that in Table 2; see the notes therein for details. * p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by the parent's district of birth.

Table A.8: Islam–State Competition at the Local Level

Conditional on Pre-INPRES Islamic School Presence

	Islamic School Entry		
	Elem.=1 Jun. Sec.=0	Elem.=0 Jun. Sec.=1	Elem.=1 Jun. Sec.=1
	(1)	(2)	(3)
	(a) Entry 1973–1983		
SD INPRES built in village, 1973–78	0.002	0.005***	0.00004
	(0.002)	(0.001)	(0.0005)
SD INPRES saturation at subdistrict level	-0.012	0.009***	0.001
	(0.017)	(0.002)	(0.002)
any elem. *madrasa* in village pre-1973	0.015**	0.014***	0.005***
	(0.007)	(0.002)	(0.001)
any jun. sec. *madrasa* in village pre-1973	0.046***	-0.008	0.007***
	(0.011)	(0.009)	(0.002)
Number of Villages		75,090	
Share of Villages with Given Profile	0.049	0.009	0.004
	(b) Entry 1984–1998		
SD INPRES built in village, 1973–78	0.006***	0.015***	0.004***
	(0.002)	(0.002)	(0.001)
SD INPRES saturation at subdistrict level	0.029***	0.020***	0.011***
	(0.007)	(0.006)	(0.003)
any elem. *madrasa* in village pre-1973	0.006	0.048***	0.007***
	(0.006)	(0.004)	(0.002)
any jun. sec. *madrasa* in village pre-1973	0.038***	0.004	-0.008
	(0.008)	(0.010)	(0.009)
Number of Villages		75,090	
Share of Villages with Given Profile	0.035	0.039	0.009

Notes: This table reports average marginal effects from the multinomial logit regression as in Table 6 but here including two additional regressors capturing Islamic school presence prior to INPRES: any elementary *madrasa* and any junior secondary *madrasa* pre-1973.

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

Table A.9: New Islamic Schools Over Time in Historical Administrative Data

	Islamic Schools				State Schools		
	Prim.	Jun. Sec.	Sen. Sec.	*pesantren*	Prim.	Jun. Sec.	Sen. Sec.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Effect of No. of INPRES Schools on…							
1980 level	0.258***	–	–	0.044*	0.492***	-0.064***	-0.060***
	(0.063)			(0.023)	(0.088)	(0.020)	(0.015)
Δ 1980 - 1983	0.022	–	–	0.008	-0.077	0.023	-0.006
	(0.019)			(0.006)	(0.056)	(0.016)	(0.008)
Δ 1983 - 1990	0.126***	–	–	0.015	0.282***	0.011	0.005
	(0.032)			(0.012)	(0.086)	(0.030)	(0.021)
Δ 1990 - 1993	0.015	0.009*	0.012***	0.011**	-0.028	0.015	0.011
	(0.022)	(0.005)	(0.004)	(0.004)	(0.047)	(0.017)	(0.013)
Number of Districts	273	273	273	273	273	273	273
Mean 1980 level	93.4	–	–	19.1	424.1	46.9	18.7
Mean Δ1980 - 1983	-0.05	–	–	0.7	47.5	15.2	9.9
Mean Δ1983 - 1990	20.5	–	–	9.1	52.9	8.9	11.6
Mean Δ1990 - 1993	-4.3	1.8	0.9	2.0	0.3	-1.3	-2.3

Notes: This table examines supply-side responses to INPRES using historical administrative data from the 1980, 1983, 1990 and 1993 rounds *Podes*, which asked about the number of schools of different types. Each cell shows the coefficient from a separate district-level cross-sectional regression of the given outcome on the number of SD INPRES primary schools constructed from 1973 to 1978. The first row looks at the number of schools of each level in 1980, and subsequent rows look at the difference in the stock reported between the initial and final year of the difference. The district-level number of *pesantren* are computed by adding up the number of villages that report having any *pesantren*. Secondary Islamic schools were not recorded until the 1990 round of *Podes*. The regressions control for the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors.

Table A.10: Curriculum Differentiation in Islamic Schools (Total Hours)

	All Levels (1)	Primary (2)	Jun. Sec. (3)	Sen. Sec. (4)
	(a) Islamic Subject Hours			
INPRES × post-1972	0.274*	0.250*	0.341	-2.058**
	(0.141)	(0.147)	(0.318)	(0.864)
Dependent Variable Mean	7.060	5.651	7.999	9.300
	(b) *Pancasila*/Civic Hours			
INPRES × post-1972	-0.024	n/a	-0.208**	0.204*
	(0.019)		(0.081)	(0.104)
Dependent Variable Mean	0.817		1.804	1.426
	(c) Arabic Hours			
INPRES × post-1972	0.038*	0.059*	-0.062	0.375***
	(0.023)	(0.033)	(0.068)	(0.102)
Dependent Variable Mean	1.536	1.131	1.917	2.009
	(d) *Bahasa* Indonesia Hours			
INPRES × post-1972	-0.096*	-0.015	-0.334***	0.088
	(0.051)	(0.062)	(0.118)	(0.140)
Dependent Variable Mean	1.719	0.148	3.634	2.865
Number of Observations	16,889	8,559	5,077	3,251
Number of Districts	263	245	250	225

Notes: This table reports analogous specifications to those in Table 7 with the dependent variable measured in total hours of instruction time per subject rather than subject-specific shares of total instruction time.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district.

Table A.11: Correlations of Curriculum and Test Scores

	Test Scores in [...]	
	Math	Science
	(1)	(2)
Islamic curriculum share	-0.0539**	-0.0398*
	(0.0217)	(0.0221)
Pancasila and Civics curriculum share	0.0550	0.0553
	(0.0758)	(0.0833)
Number of Observations	1,371	1,371
Dep. Var. Mean	0.0	0.0

Notes: This table reports correlations of test scores in math and science (the combination of which is the dependent variable in panel c of Table 7) and the share of weekly instruction time devoted to Islamic and *Pancasila*/civics curriculum (the dependent variables in panel a and b of Table 7). There are only 1,371 junior secondary schools for which we can link test scores and curriculum registries. The regressions include district and year-of-school-entry fixed effects.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district.

Table A.12: INPRES Intensity and Test Score Differentials

	Math and Science Test Scores in [...]			
	All Schools	Islamic	Non-Islamic	Δ I-NI
	(1)	(2)	(3)	(4)
INPRES × post-1972	0.001	-0.122	0.0002	-0.623**
	(0.025)	(0.117)	(0.0241)	(0.249)
Number of Observations	10,055	2,486	9,252	1,681
Number of Districts	273	209	273	186
Dependent Variable Mean	0.00	0.00	0.00	0.00

Notes: This table examines science and math test score outcomes at the junior secondary level in the 2014 school year. The unit of analysis is a district–year-of-entry, and the panel is unbalanced, including only years in which the given district had any schools enter. The dependent variables capture the standardized test score for all schools (column 1), Islamic (column 2), non-Islamic schools (column 3), and the difference between Islamic and non-Islamic schools in the given district–year-of-entry (column 4). This specification include district fixed effects, year-of-entry fixed effects, and a post-1972 dummy interacted with the 1971 children population, the 1971 enrollment rate, and exposure to the water and sanitation program.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.13: INPRES Exposure and Linguistic Ability

	Able to Speak Indonesian			Latin Alphabet Literacy			Other Literacy		
	All	Muslims	Non-Muslims	All	Islamic-Educ.	Secular-Educ.	All	Islamic-Educ.	Secular-Educ.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
INPRES × young	0.0182***	0.0242***	0.0049	0.0194***	0.0111***	0.0196***	0.0034	-0.0003	0.0034
	(0.0052)	(0.0068)	(0.0041)	(0.0042)	(0.0039)	(0.0042)	(0.0023)	(0.0050)	(0.0023)
Observations	31,678,510	27,811,101	3,867,324	839,026	25,935	813,087	839,026	25,935	813,087
Number of Districts	273	273	273	275	268	275	275	268	275
Dep. Var. Mean	0.931	0.933	0.918	0.914	0.985	0.912	0.060	0.045	0.061

Notes: This table reports estimates of equation (1) using data from the 2010 Population Census (columns 1–3) and *Susenas* 2012–18 (columns 4–9). The specification in columns 1–3 is the same as in columns 1–3 of panel (a) in Table 8 with the outcome here being whether the respondent is able to speak Indonesian. The specification in columns 4–9 is the same as in columns 4–6 of panel (a) in Table 8 with the other literacy outcomes here.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.14: Correlations of Islamic Education and Literacy

Years-of-Schooling Fixed Effects

	Literacy in . . . Alphabet		
	Arabic	Latin	Other
	(1)	(2)	(3)
Islamic primary	0.1992***	0.0144***	-0.0109***
	(0.0118)	(0.0020)	(0.0025)
Islamic junior secondary	0.2627***	0.0003	-0.0021
	(0.0093)	(0.0013)	(0.0030)
Islamic senior secondary	0.2842***	-0.0004	-0.0012
	(0.0085)	(0.0012)	(0.0053)
Number of Observations	839,019	839,019	839,019
Number of Districts	275	275	275
Dependent Variable Mean	0.343	0.914	0.060

Notes: This table regresses indicators for literacy in different languages/alphabets on indicators for whether the respondent's final level of schooling was Islamic primary, junior secondary or senior secondary. The data come from our baseline *Susenas* data from 2012 to 2018, and the sample is restricted to our baseline cohort specification used throughout the paper. The regressions are conditional on total years-of-schooling fixed effects such that the coefficients identify the differential literacy rates for those completing Islamic versus non-Islamic school with the same total years of schooling. The specification omits the interaction of INPRES and the exposure dummy but is otherwise identical to that used in column 4 of panel (a) in Table 8.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.15: INPRES Exposure and Schooling in the Pepinsky et al. (2018) Sample

	Highest Education Level:			
	Any Elementary	Islamic Elementary	Islamic Jun. Sec.	Islamic Sen. Sec
	(1)	(2)	(3)	(4)
INPRES × young	0.0829**	0.0067	0.0380**	-0.0020
	(0.0389)	(0.0207)	(0.0152)	(0.0087)
Observations	1,785	1,694	1,694	1,694
Number of Districts	145	145	145	145
Dep Var. Mean	0.773	0.029	0.037	0.021
R^2	0.390	0.250	0.202	0.258

Notes: This table reports estimates of equation (1) using data from Pepinsky et al. (2018). The sample is restricted to Muslim respondents and compares individuals aged 6 or less in 1974 (young) with individuals aged 12 or more in 1974. All specifications include district fixed effects and year fixed effects interacted with the number of children in the district in 1971, the 1971 enrollment rate, and exposure to the water and sanitation program.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.16: Null Effects of INPRES Exposure on Religious Political Preferences (I)

	Corporal Punishments	Prohibit Interest	Hijab Mandatory	Support Polygamy	Punish Adultery	Punish Apostasy	**Index** Subjective	**Index** Objective
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
INPRES × young	-0.0174	-0.0438	0.0414	0.0142	-0.0182	-0.0006	-0.0040	-0.0311
	(0.0474)	(0.0469)	(0.0355)	(0.0578)	(0.0516)	(0.0281)	(0.0222)	(0.0328)
Observations	1,722	1,625	1,740	1,777	1,740	1,714	1,790	1,703
Number of Districts	143	143	143	145	145	145	145	145
Dep. Var. Mean	0.312	0.452	0.826	0.388	0.433	0.183	0.433	0.681

Notes: This table reports estimates of equation (1) using data from Pepinsky et al. (2018). The outcomes in columns 1–6 correspond to the sub-components of the objective index of support for *Sharia* law used in Table 9 and reproduced here in column 8. The specification is otherwise identical to that in Table 9; see the notes therein for details.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

Table A.17: Null Effects of INPRES Exposure on Religious Political Preferences (II)

	Muslim President	Religiosity President	Support: Islam in Politics	Islamic Economics	Islam in Society
	(1)	(2)	(3)	(4)	(5)
INPRES × young	-0.0204	-0.0219	0.1129	-0.0269	-0.0311
	(0.0358)	(0.0350)	(0.0726)	(0.0610)	(0.0328)
Observations	1,771	1,769	1,564	1,583	1,703
Number of Districts	145	145	144	144	145
Dep. Var. Mean	0.664	0.774	2.280	2.133	0.681

Notes: This table reports estimates of equation (1) using data from Pepinsky et al. (2018). The outcomes are indicators for whether the respondent believes the president should be Muslim (column 1), religiosity of the president is important (2), Islam should play a central role in politics (3), in the economy (4), and in society (5). The sample is restricted to Muslim respondents and compares individuals aged 6 or less (young) in 1974 with individuals aged 12 or more in 1974. All specifications include district fixed effects and year fixed effects interacted with the number of children in the district in 1971, the 1971 enrollment rate, and exposure to the water and sanitation program.
* p<0.1, ** p<0.05, *** p<0.01. Robust standard errors clustered by district of birth.

B A Stackelberg Model of Competition in Education Markets

This section describes a simple model to rationalize the increase in the supply of Islamic schools in response to SD INPRES. The model leverages insights from Bulow et al. (1985) and Marini and Rodano (2013) on strategic complementarities in Cournot and Stackelberg duopolies.

Suppose two players $j = s, i$ compete in a Stackelberg game. The state (s) is the Stackelberg leader and the Islamic sector (i) is the follower. Both players maximize the number of students enrolled in their respective schools. The payoff of player j is:

$$\pi(q_j, Q) = (1+Q)^{-b} q_j$$

where $P(Q) = (1+Q)^{-b}$, $b > 1$ is the inverse demand for schooling and $Q = q_s + q_i$ is the total supply of schools across both sectors.

We solve recursively for a Stackelberg (subgame perfect) equilibrium. The Islamic sector solves:

$$r_i(q_s) = \arg\max_{q_i} (1 + q_s + q_i)^{-b} q_i, \tag{B.1}$$

taking the state's choice of q_s as given. The FOC with respect to q_i yields:

$$r_i(q_s) = \frac{1+q_s}{b-1} = q_i, \tag{B.2}$$

which implies that i and s are strategic complements ($r_i(q_s)$ is upward sloping). Given the Islamic sector's best response, the state solves:

$$q_s = \arg\max_{q_s} (1 + q_s + r_i(q_s))^{-b} q_s \tag{B.3}$$

The equilibrium number of state schools is then:

$$q_s^* = \frac{1}{b-1}, \tag{B.4}$$

which implies that $q_i^* = b/(b-1)^2$ Islamic schools are produced in equilibrium.

Now, suppose that an outward shift in demand for education leads the state to increase its provision of schools. Specifically, s and i now face inverse demand $P(Q) = (1+Q)^{-b'}$, $b > b' > 1$. In this case, the state produces $\frac{1}{b'-1} > \frac{1}{b-1}$ schools and the Islamic sector responds by supplying $\frac{b'}{(b'-1)^2} > \frac{b}{(b-1)^2}$ schools. This result provides a microfoundation for the Islamic sector's positive supply response discussed in Section 6.[1]

Proof of B.2: The FOC of B.1 yields

$$-b(1+q_s+q_i)^{-b-1} q_i + (1+q_s+q_i)^{-b} = (1+q_s+q_i)^{-b-1}(-bq_i + 1 + q_i + q_s) = 0 \Rightarrow q_i = \frac{1+q_s}{b-1}$$

[1] Of course, the model makes several simplifying assumptions, including an assumption of zero marginal costs. This assumption ensures a closed-form solution but may not be innocuous. In particular, the results in Section 6.1 suggest that the Islamic sector indeed may have faced different costs of constructing new *madrasa* across districts owing to differences in the availability of Islamic charitable assets (*waqf*).

Proof of B.4: The FOC of B.3 yields

$$
\begin{aligned}
-b\left(\frac{b}{b-1}\right)\left(1+q_s+\frac{1+q_s}{b-1}\right)^{-b-1} q_s+\left(1+q_s+\frac{1+q_s}{b-1}\right)^{-b} &= 0 \\
\left(1+q_s+\frac{1+q_s}{b-1}\right)^{-b-1}\left[-b\left(\frac{b}{b-1}\right) q_s+1+q_s+\frac{1+q_s}{b-1}\right] &= 0 \\
-b^2 q_s+b-1+bq_s-q_s+1+q_s &= 0 \\
-b^2 q_s+b+bq_s &= 0 \\
q_s &= \frac{1}{b-1}
\end{aligned}
$$

i's equilibrium strategy is then obtained by plugging B.4 into B.2. □

C Data Sources and Construction

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

Education: Survey and Administrative Data

Surveys. We measure years and type of schooling using the annual National Socioeconomic Survey (*Susenas*) from 2012, 2013, 2014, 2016, 2017, and 2018. These enumerate schooling measures for all household members and also record the birth district for each, which we merge with the district-level INPRES intensity measure collected by Duflo (2001). We additionally use Islamic school attendance data from the Indonesia Family Life Survey (IFLS) in 1993, 1997, 2000, 2007, and 2014. The IFLS is too limited geographically for our econometric analysis, but we use it for descriptive purposes in Table 1 and elsewhere in the text.

Registries. We use data from numerous administrative sources provided by the Government of Indonesia. Table 1 used data on total non-*pesantren* enrollment in 2019 from the Ministry of Education (MEC) and Ministry of Religious Affairs (MORA) as reported at the following website: `http://apkapm.data.kemdikbud.go.id` (accessed March 22, 2020). *Pesantren* enrollment in 2019 is computed from school-level records that we scraped from the MORA portal: `https://ditpdpontren.kemenag.go.id/pbsb/` (accessed November 15, 2018). These records also indicate the district and year of establishment for each *pesantren* (see Bazzi et al., 2020, for additional details).

Data on *madrasa* come from MORA registries provided to us by MORA officials in August 2019 and January/February 2020.[1] These include village, district, and year of establishment for all formal *madrasa* (primary, junior secondary, and senior secondary) as well as informal *madrasa diniyah*. The latter are entirely privately-run. The former are majority private with a small fraction (around 8%) that are publicly-run by MORA. Overall, 6% of *madrasa* and 22% of *pesantren*, respectively, have missing establishment years. This missing-ness is uncorrelated with SD INPRES intensity.

Data on non-Islamic schools come from a MEC registry known by its Indonesian acronym *Dapodik*.[2] These data include village, district, and year of establishment for all formal schools not administered by MORA. These include 166,257 publicly-run schools and 52,888 privately-run schools. Among the latter, 10,919 schools have Islamic names, indicating that they are likely religious schools operating under the MEC instead of MORA. These schools are subject to different regulations on curriculum and also have access to other sources of state funding than the Islamic schools under MORA oversight. We distinguish secular from Islamic-named private schools in the MEC data by identifying the latter as having any of the following terms appearing in the school name: Islam, Darussalam, Darul, Muhammada, Salam, Sunna, Kuran, Jihad, Umma, Madrasa Halal, or Imam. We use this distinction to examine private secular schools in Appendix Figure A.3.

We measure curriculum content at the school–grade level using data from the Sistem Informasi Aplikasi Pendidikan (SIAP) registry of schools. We scraped data from this registry's online portal over several months in Fall 2019: `http://siap-sekolah.com/`. As of April 2020, SIAP only included detailed curriculum timetables for *madrasa*. We link these *madrasa* to the MORA registry using school IDs reported in both sources. The SIAP report detailed course timetables for every hour of every schoolday in a typical week for the 2018–2019 academic year. There are over 3,000 distinct course titles with many being (spelling) variations on the same topic. We coded up each course as being Islamic or non-Islamic

[1] We are grateful to the following individuals for graciously sharing these data: Dodi Irawan, Aziz Saleh, Dr. Abdullah Faqih, and Doni Wibowo.

[2] We are grateful to Wisnu Harto Adiwijoyo for graciously sharing these data.

and also identified courses associated with civic education and *Pancasila*, which are known by their Indonesian acronym of PPKN. These course codings are available upon request. SIAP includes data for around one-fifth of all *madrasa*, but as noted in footnote 24, this selective reporting likely works against our core findings with respect to INPRES intensity.

We measure test scores using data collected by the MEC on the national exam scores in 2014 for science and math. We scraped these data in March 2015 from the MEC portal: http://referensi.data.kemdikbud.go.id. We link these data to the *Dapodik* and MORA registries using school IDs available across datasets.

Electoral Outcomes: Vote Shares and Legislative Candidates

Vote Shares. First, we draw upon district-level vote shares by party from the national legislative elections in 1971, 1977, 1982, 1987, 1992, 1999, 2004, and 2009. These data were graciously shared with us by individuals that worked with Dwight King. In 1971, one observes the following Islamic parties: NU, PSII, Perti, and the Muslim Party of Indonesia (*Partai Muslimin Indonesia* or Parmusi). From 1977 to 1992, the only Islamic party was the United Development Party (*Partai Persatuan Pembangunan* or PPP), which was forged out of a forced merger of the four Islamic parties contesting the 1971 election. We study the vote shares for the PPP and the Suharto regime party, *Golkar*.

Legislative Candidates. We use data on the universe of legislative candidates in the 2019 election. Thanks to Nicholas Kuipers for scraping and sharing these data from the Indonesian Electoral Commission: http://www.kpu.go.id/. These include candidates for national, provincial, and district legislatures. We use information on candidate age, district, and party ticket. We also categorize their campaign motivation and platform statements as appealing to Islamic themes as reflected in the following words: *umma*, *dawah*, Muslim, Islam, *sharia*, and jihad. We separately classify appeals to nation building as reflected in the following words: *Pancasila*, Indonesia, NKRI, *bangsa* (nation), *bhinneka* (diversity), and *satuan* (unitary). The latter three terms are staples in the nation-building corpus of Indonesian leaders and literature. NKRI is an acronym for the Indonesian homeland in a popular nationalistic slogan.

Linguistic Proxies for Identity

We proxy for national identity using an indicator of whether an individual speaks the national language, *Bahasa Indonesia*, as his/her main language at home (instead of his/her native ethnic language). This is distinct from Indonesian speaking ability, which we also observe. These data—along with religion, age, and district of birth—are recorded in the complete-count 2010 Population Census, which we obtained from the Harvard Library.

We view Arabic language proficiency as one indicator of Islamic identity. The *Susenas* data described above record literacy in Latin, Arabic, and other alphabets.

Religiosity and Religious Political Preferences

We use rich individual-level survey data from Pepinsky, Liddle and Mujani (2018), which is based on a 2008 survey conducted by the authors in which 10 individuals were sampled from each contemporary district. These data include individual age, religion, years and type of education, a host of questions on Islamic piety, practice, and political preferences. Seven Islamic practices are explored in Table 8. The survey also record dimensions of support for Islamic law (*sharia*) and religious politics more generally. We also use a measure of stated support for *Pancasila*.