

The Islamic Waqf: Instrument of Unequal Security, Worldly and Otherworldly

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Abstract

Until the modernizing reforms of the 19th century, the Islamic waqf played a massive role in the economy of the Middle East, the Balkans, and North Africa. Formally, it was a trust founded by an individual; income from the endowed assets financed designated services in perpetuity. The largest waqfs were established by members of high officials of the ruling dynasty to provide social services now supplied by municipalities or charitable corporations. These Islamic “state waqfs” have been the focus of case studies that make the waqf seem mainly a supplier of public goods. Using an original data set consisting of Istanbul waqf deeds from 1457-1923, this paper explores the functions of Islamic “regular waqfs”—waqfs founded either by elites below the top echelon or by commoners. The typical regular waqf had a relatively modest endowment and architectural footprint. In a setting characterized by weak property rights and legal system that favored males, Muslims, and state officials, it was established principally to provide material security to its founder and his or her descendants. Providing public goods was not among its major functions; neither was assisting the poor. Founders belonging to a disadvantaged group, including women, were especially likely to prioritize wealth sheltering. Regular waqfs thus served to perpetuate prevailing worldly inequalities through material security to the wealthy. They also aimed to create inequalities in the hereafter. Their major functions included financing prayers to expiate the sins of founders and their families.

JEL codes: N95, G51, P50, O53, K11

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1. Introduction

The Islamic waqf was an unincorporated trust established by an individual under Islamic law. Registered in an Islamic court, its deed stipulated how revenue from its endowment would finance particular social services. It is distinguished from the modern waqf, which is akin to a charitable corporation. Relative to its modern namesake, the Islamic waqf was structurally less flexible, organizationally both simpler and more uniform, and in practice less dynamic. In places governed under Islamic law, the Islamic waqf was the main vehicle for providing urban services until the founding of municipalities, starting in the 1800s. Another measure of the Islamic waqf's historical significance lies in its asset base. Depending on location, up to the 1800s waqfs owned between one-quarter and one-third of all real estate.¹ Their assets were usually exempt from taxation, and they enjoyed considerable immunity to expropriation.

Piety, philanthropy, and charity are generally considered the main motives for endowing Islamic waqfs (hereafter, “waqf” will denote “Islamic waqf,” unless otherwise noted). Challenging this common view, we document here that the vast majority of founders sought mainly to shelter wealth for themselves and their relatives. Though piety was also a common motive, it, too, had a selfish and pro-family bias. Founders commonly financed Quran recitations and services to existing mosques. However, as with worldly services, expected otherworldly benefits favored endowers and their families. Contrary to impressions given by Islamic and Middle Eastern historiography, establishing a waqf to provide non-religious public goods was a rare objective. Moreover, waqfs meant to benefit the poor were rare. Though piety was conceivably a common motive, charity and philanthropy were not.

Motives varied systematically across groups differentiated by rights and social status. A very small minority of all waqfs, including most of the largest by endowment, were founded by rulers, their families, and high state officials to provide services that in a modern city are supplied by local governments or profit-seeking utilities. In financing urban infrastructure, these services contributed to political stability and consolidated the ruling dynasty's legitimacy. They also cemented alliances with clerics, who ran the courts that certified, audited, and supervised waqfs. Several works on the political economy of Islamic civilization highlight the state-cleric alliance as critical to legitimizing pre-modern Muslim-governed states (Rubin 2017, Platteau

¹ Kuran (2016, table 1) lists the available estimates and the underlying methodologies.

2017, Kuru 2019). Waqfs were central to this alliance. In return for helping to perpetuate the political status quo, clerics benefited from waqfs as their supervisors, but also disproportionately as their employees and consumers.

A related claim is that the waqf promoted economic equality (Genç 2014, Abdur-Rashid 2019) This claim, too, lacks an empirical foundation. No one has collected the data necessary for a comprehensive study of the waqf's distributional effects. Though we cannot settle the issue here, we uncover several grounds for skepticism. In states governed under Islamic law, people of very high social status—military commanders, top bureaucrats, members of the ruling family—were expected to provide social services through “state waqfs.” In line with this norm, Istanbul's top elites were likelier than other groups to fund public goods, including ones whose beneficiaries included the poor. Yet, the philanthropy of rulers and their close circles was biased in favor of the upper classes. Besides, we show here, the vast majority of “regular waqfs”—those established by people outside the ruling circle—were meant to benefit, first and foremost, the founders and their families, in this world and in the hereafter. As such, waqfs as a whole helped to perpetuate, even to aggravate, longstanding inequalities. Even religious services were partial to the salvation of founders and their families. Waqfs that sheltered wealth for founders and their descendants were among the sources of inequality preservation. They enabled wealthy families to live on rents for generations on end. A pattern that may have mitigated the various unequalizing effects is that women, because of economic handicaps rooted in Islamic laws, were more inclined than elite men to use waqfs as wealth shelters.

In probing waqf history from new angles, the study draws on two data sources. The first is an original data set of Istanbul waqf deeds from 1457 to 1923. It provides granular information on both founders and financed functions. During the half-millennium considered, Istanbul was the largest commercial center of the Eastern Mediterranean and the capital of its most powerful empire. Until the Industrial Revolution, it also ranked among the world's most populous cities. With local variations, the rules of Istanbul's waqfs were enforced throughout the Muslim-governed pre-modern Middle East and North Africa, as well as much of the Balkans. Hence, the presented patterns provide clues to pre-modern economic, political, and social trends in a vast area spanning more than 60 modern states. Our other data source is the historical waqf literature based on archival sources. It includes several quantitative contributions, but they do not address the questions pursued here (Yediyıldız 1990, Öztürk 1995, Blaydes 2019, Bazzi, Koehler-

Derrick, and Marx 2020).² It also contains descriptive works that provide minute institutional details on specific categories of state waqfs, such as hospitals and public kitchens founded by rulers or their wives. By and large, the findings of these sector-focused studies suggest that the waqf perpetuated inequalities. But they have hardly dented the common view that the pre-modern waqf was an instrument of charity and equalizing redistribution. What is scarcely appreciated is that influential case studies suffer from extreme selection bias, in that they focus very disproportionately on public goods supplied by rulers or other top elites. Giant state waqfs delivered goods consumed by the masses. Yet, they are highly unrepresentative of the full population of waqfs (Kunt 1994, Orbay 2017).

The patterns presented here underscore fundamental differences between state-formed Islamic waqfs, which are essentially precursors of municipal agencies, and regular Islamic waqfs, which served generally as wealth and tax shelters. Our analysis explores who founded Istanbul's waqfs, what services were financed, who benefited, and how patterns changed over a half-millennium. Waqfs gradually lost popularity as a wealth shelter after about 1650. Charity was present, though not dominant, among contingent waqf stipulations, such as those that would become effective if the founder's family line went extinct. But it was rare among the primary functions stipulated in deeds. The conventional wisdom that the waqf was an instrument of charity rests partly on the conflation of primary and contingent stipulations.

Like many other researchers, we observe that waqf founders included a substantial share of women (Meriwether 1999, chap. 5; Deguilhem 2003; Doumani 2017, chaps. 4-7; Özgüleş 2017). We add that men and women differed systematically in the services they chose to finance. Female founders were more likely than males to use the waqf as a wealth shelter for themselves and their families. Gender differences involving worldly functions disappeared, however, in regard to otherworldly services. So did status differences. High elites were as likely as female commoners to endow Quran recitations for their own redemption.

That the waqf created or preserved various inequalities will surprise no one familiar with the global literature on the political economy of distribution. Throughout history, all social orders have entailed institutions designed to benefit the rich and powerful; and it has been common to rationalize such institutions through ideologies that misrepresent them as vehicles of

² The first two sources ask related questions. But their samples are small, and they present raw data without conducting statistical analyses suitable to identifying goals, trends, or confounding variables.

egalitarian redistribution. Influential works that develop this point from diverse perspectives include Marx and Engels (1845/1998), Gramsci (1926-37/2011), Hayek (1976), Buchanan (1999), Ansell and Samuels (2014), and Piketty (2020). With regard to the waqf, many modern analysts have accepted uncritically its medieval characterization as an instrument of pious charity and philanthropy. A commonly used Anglicized descriptor of the Islamic waqf is “pious endowment.” Accordingly, it has been fashionable to claim that the modernizers of Iran, the Ottoman Empire, Turkey, and the Arab world, sometimes in collusion with European colonizers, destroyed an efficient but also egalitarian system for delivering public goods. Colonizers and foreign companies could be ruthless in pursuing riches. Like indigenous modernizers, they appropriated waqf-owned properties through a combination of corruption and legal reforms (Powers 1989; Fischer 2003, pp. 117-19; Blackman 2019, sect. 2.3). But the system they helped to dismantle was not a vehicle for transferring resources to the poor. Many privatized or nationalized waqfs provided rents to the descendants of privileged families. Whatever the flaws of colonial and post-colonial institutions, there is no empirical basis for believing that the Islamic waqf’s demise hurt the poor. We reinforce this point here by showing that regular waqfs delivered little help to the poor in the first place.

The waqf’s glaring inefficiencies as a service provider are among the key reasons why, during the millennium preceding the Industrial Revolution, urbanization was slower in the Middle East than in Western Europe (Bosker, Buringh, and Zanden 2013, Blaydes and Paik 2021). Interest in forming Islamic waqfs plummeted as new investment opportunities stimulated legal transformations that reduced their capacity for sheltering wealth (Cansunar and Kuran 2020). The questions pursued here are central to understanding why, nowhere in the Muslim world, reformers of the early Industrial Era sought to deliver modern urban services through waqfs. Modernizers transplanted a Western institution, the municipality, to fulfil functions once relegated huge waqf complexes. They did so mainly for two reasons. First, the waqf was fundamentally ill-suited to delivering mass social services of the Industrial Era. Second, the waqf’s inflexibilities aggravated its inefficiencies in the face of rapid technological change. A broader literature on comparative economic development identifies mechanisms by which certain Islamic institutions, including the waqf, contributed to the economic divergence between the Middle East and Western Europe (Kuran 2011, Blaydes and Chaney 2013, Rubin 2017, Bisin, Rubin, Seror, and Verdier 2021).

The recorded literature frequently confuses scripture counseling generosity with observed Muslim behaviors (Hoexter 2002, pp. 120-21). Actual waqf decisions were shaped by factors well beyond what Islam counsels. Groups whose waqf choices of worldly social services differed systematically were equally likely, we find, to endow resources to finance prayers for their own souls. Evidently, people whose worldly privileges induced philanthropy felt too insecure about their afterlife to invest in the salvation of others. Curiously, noncompliance with Islam's teachings on generosity was especially pronounced with regard to endowing services meant to help souls of the deceased. This finding aligns with a basic tenet of the economics of religion, a field that explores religious behaviors with the understanding that impulses to obey religious dictates compete with other personal goals (Iannaccone 1998, Iyer 2016, McCleary and Barro 2019, Bentzen and Gokmen 2020). We add depth to this literature, which is based disproportionately on Christianity and Judaism, by showing that historical practices of Islam, too, lend themselves to rational explanations. The capacity for following the Quran's charity dictates varied across groups. Opportunity costs would have been particularly high for women, who were relatively insecure because of legal, social, and economic handicaps. That would explain why female waqf founders were particularly likely to shelter wealth and why, in contrast, men more readily endowed worldly public goods. It is not obvious whether the identified contrast would have carried over to religious waqfs. The crux of our negative finding is that every religious person, regardless of wealth, power, or status, is prone to feeling a sinner. Evidently, worldly privilege or success did not diminish the desire for insurance against committing acts displeasing to God.

2. Historical Evolution of the Islamic Waqf

The waqf is not among Islam's original institutions.³ It entered the Islamic institutional complex more than a century after the birth of Islam, around 750 CE.⁴ The impetus was probably the material insecurity of high state officials, who were compensated for their successes through land grants. Though wealthy, they lived in fear of falling out of favor and getting expropriated. Like materially insecure people elsewhere, wealthy landowners of early Muslim empires created a

³ The Quran does not mention the waqf, which was unknown to the earliest Muslims. Its instrument of public finance was zakat, an annual transfer scheme that supported public goods, including a social safety net (Kuran 2020, sects. 6-7).

⁴ For details on the information in this section, see Barnes (1987), Kuran (2011, chaps. 6-7), Werner (2015, chaps. 1-4).

wealth shelter by adapting an institution that Persians and Romans used to finance religious temples: the trust. An Islamic variant of the trust was created to meet the security needs of Muslim landowners while also serving a pressing need of sultans, the provision of public goods. The urban population under Muslim rule, which was swelling through conquests, would also benefit. To each of its three constituencies, the waqf gave something valuable. Rulers earned legitimacy and stability; the wealthy obtained material security; and the masses received subsidized social services.

The waqf thus represented an implicit social contract between rulers, wealthy Muslim elites, and the ruled. Non-Muslims could also form waqfs but, unlike Muslims, only through special permission. Consisting of income-producing real estate, its inviolable and inalienable endowment would be managed by a caretaker according to the founder's instructions; its goals enshrined into the deed would include the delivery of specified services in perpetuity. The inviolability provision was made credible partly by broadening the application of a principle transplanted from Roman and Persian temples: sacredness of endowed property. Backed by Islamic courts, Islamic norms treated all waqf assets as sacred, not only those serving religious ends. For fear of appearing impious, rulers would think twice before confiscating waqf properties, or allowing their confiscation by others. The credibility of the inviolability and inalienability provisions drew support also from the stakes that sultans, their families, and high officials had in securing their own endowments. Contract violations would trouble all property owners. Hence, when they occurred, they drew objections from many quarters.

A fundamental innovation, relative to earlier trust variants is that waqf services did not have to be religious. Any service compatible with Islamic law could be financed through a waqf. Providing a comfortable lifestyle for one's self and family was legitimate. Sheltering wealth became an accepted waqf function on that basis, even as it remained controversial for allowing the circumvention of Islam's inheritance rules.⁵ By no means, though, was wealth sheltering meant to be, or did it become, the waqf's only purpose. Rulers expected their high officials to participate in legitimizing the incumbent order by financing social services. This expectation was the Islamic analog of *noblesse oblige*, the French aristocratic norm that had variants around the

⁵ The Quran-based Islamic inheritance system stipulates shares for all surviving family members, male and female (Abbasi 2012, p. 148). Wealth fragmentation could be prevented by placing assets in a waqf and assigning their control to descendants at will. Jurists who recognized the Quran-defying intertemporal motive often accepted the practice on the ground that the resources would go to the poor once the family line ended.

world (Duby 1978/1980, pp. 59-60; Brodman 2009, Wong 2000). The norm lives on today in the form of expectations that the rich and famous mark their class status by financing public goods that transmit elite values to less privileged groups—schools, museums, scholarship programs, and the like (Ostrower 1995, chaps. 1, 4; Fiddick, Cummins, Janicki, Lee, and Erlich 2013). High-ranking officials of many Muslim dynasties—Abbasids, Fatimids, Mamluks, Seljuks, Safavids, Qajars, Ottomans, among others—established waqfs not only to shelter wealth for their families but also to finance mosques, water fountains, inns for merchants, schools, soup kitchens, parks, and sundry other structures that sustained states governed under Islamic law. In most cities of the Muslim world, most surviving structures dating from their periods under Islamic law—typically to legal modernization in the mid-1800s—are buildings financed through a waqf. The major exceptions are palaces and military structures, which were built through state resources rather than legally private assets.

The founder of a waqf had to be a natural individual. A group or organization was ineligible. Because Islamic law lacked a concept of corporation, a collective entity had no legal standing anyway. The deed registered in court was treated as a contract between its individual founder and the Muslim community. It specified an initial caretaker who would manage the waqf for a fee, along with procedures for replacing successive caretakers. Sometimes, it also specified contingencies under which the caretaker would have discretion over particular matters. Islamic courts were expected to enforce the contract, as necessary by auditing its expenses and investigating its management. In principle, and often also in practice, the portfolios of waqfs were fixed, as were their services. Insofar as modifications occurred, they involved legal ruses that delivered rents to caretakers and supervising judges.

During the millennium following the waqf's emergence as a core institution of Islamic civilization, enormous private resources flowed into founding waqfs. Because endowed property ordinarily retained its status indefinitely, in cities governed under Islamic law the share of wealth immobilized as waqf property expanded over time (Leeuwen 1999, chap. 6; Boyar and Fleet 2016, chap. 4; Blaydes 2019). Expropriations of waqf property did occur. But until the 1700s, they were uncommon, and sometimes they got reversed quickly in response to protests (Yüksel 1992). Starting in the 1700s, with service-providing waqfs looking increasingly dysfunctional, states started to nationalize them. In the Ottoman Empire, they did so surreptitiously at first, through neighborhood communities ostensibly established to assist financially troubled waqfs

but actually to control and expropriate them on behalf of the state (Öztürk 1995, pp. 69-77). In the 1800s, the nationalization drives became more transparent with the establishment of waqf ministries that centralized their administration. Under ministerial bureaucracies, the returns of previously autonomous and mutually independent waqfs turned into composite revenue streams that came to be used, increasingly, as the state saw fit. Some of these streams were channeled to the municipalities founded to deliver modern social services through civil servants empowered to adjust budgets, adopt new technologies, and expand services (Reimer 1999, Ortaylı 2008, pp. 435-43).

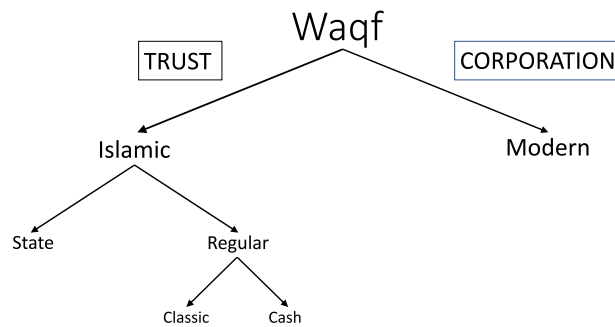


Fig. 1. Types of waqfs and their legal structures.

Prior to the start of de facto nationalizations, the largest of all waqfs, charitable complexes that supplied numerous social services at once, were founded by sultans, their relatives, and their top officials. These complexes may be described as state-founded Islamic waqfs, or simply “state waqfs,” as opposed to regular Islamic waqfs, or simply “regular waqfs.”⁶ In Fig. 1, the sub-braches on the left depict the typology introduced. Given that an Islamic waqf sheltered assets from the state, what might the ruling family have gained from using it to provide social services? Did the ruling family need protection from itself? Two considerations made the waqf useful even to powerful dynasties. Every ruling family had factions, which could differ in their preferences across public goods. Placing income-producing assets within a waqf provided insurance against rival factions. Besides, a dynasty could be toppled. In such an event, the defeated dynasty’s private property would be more vulnerable to confiscation than assets of its

⁶ Some scholars use instead the term “sultanic waqf” or “imperial waqf” to designate what we are calling a state waqf. The former term is too narrow for our purposes here, for the founder was not necessarily the Sultan himself. The latter is confusing because the political entity being legitimated was not always an empire.

imperial waqfs. With greater probability, the waqfs would continue serving the dynasty's preferences, as recorded in their deeds.

In pre-modern Muslim-governed cities, state waqfs substituted for local governments. Without input from the intended beneficiaries of the services—hospital patients, students and their parents, fountain users, bathers at public baths—they delivered public goods whose supply would eventually pass to government agencies and private firms. The chief reason why waqfs got eclipsed by modern suppliers of public goods is their rigidity. Whereas a municipality is responsive to its constituents, a waqf is not. In principle, and often also in practice, the waqf served the wishes of its founder; not even the founder was entitled to change its mission.

Under classical Islamic law, largely in place by 900 CE, a waqf's endowment had to consist of immovables. The underlying logic was that only durable structures could ensure social services in perpetuity; nondurable wealth, such as precious metals and coins, could be stolen, making the waqf inoperative. In the 1500s, though, judges in Turkey and the Balkans started to authorize waqfs with endowments consisting of cash. A "cash waqf," as it came to be known, earned a return by lending at interest. In Fig. 1, it appears as a subtype of the regular waqf; its complement, the waqf obeying the asset rules of classical waqf law, was the "classic waqf." Cash waqfs became controversial among Islamic jurists because they violated the immovability requirement of classical law, but also because they lent at interest, which was sinful under the dominant interpretation of Islam. The usefulness of the cash waqf, its supporters held, lay in the scarcity of credit. Ultimately, the pragmatic side won the struggle, and in a broad geographic area the cash waqf became a widely accepted alternative to the classic waqf. In Istanbul, the geographic setting for our empirical analysis, each type of regular waqf, classic or cash, saw use as both a wealth shelter and a supplier of public goods.

3. Analytic Controversies

Wealth sheltering and providing public goods were not mutually exclusive; and the mix of functions could vary across time and space, depending on economic, social, and political factions. Moreover, in any given set of circumstances, groups could differ in incentives to endow services of one kind or another.

Inter-temporal and inter-group differences

Whether quantitative or qualitative, and analytical or descriptive, waqf research often distinguishes between philanthropic waqfs and waqfs founded in favor of family members, treating them as distinct varieties according to whether the family was the leading beneficiary, rather than as abstractions representing the ends of a continuum.⁷ Modern analytic tools dispense with the need for such coarse functional categories. Using granular information in a scientifically constructed sample of waqf deeds, one can explore functions without concealing the immense variety of combinations. As we shall see, a more disaggregated functional classification affords new insights.

Many works focused on one place or another have observed that waqfs created mainly in favor of the founder's family controlled substantial wealth (Powers 1999, Doumani 2017). These works would appear to suggest that for groups outside the ruling dynasty and its top officials, wealth sheltering could have been a more important function than charity. But if that implication has been drawn, it is only on the fringes of the waqf literature. An enormously popular historiographical tradition stretching back to the 1960s treats waqfs established to perform charity and philanthropy as relatively more important to understanding the traditional Islamic order. Hodgson (1974, p. 124), a leading Islamologist of the twentieth century, characterizes the waqf as a "vehicle for financing Islam as a society." Yediyıldız (1990, p. 5), one of the most influential waqf researchers, speaks of it as an institution that enabled Ottoman subjects to live on charity, literally, from "cradle to grave." These observations capture key elements of state waqfs. Did they apply to regular waqfs as well? Did regular waqfs benefit all segments of society equally from "cradle to grave"? Whatever the regular waqf's contribution to "financing Islam as a society," was it fixed over time? In what follows we aim to begin filling the void in systematic empirical research on inter-temporal trends and inter-group differences.

Role of generosity

A common theme in waqf scholarship is the philanthropic motives that drove waqf-financed social services. Generosity, it is said, made the wealthy found waqfs for the benefit of people less fortunate than themselves. The literatures that make these claims do not necessarily distinguish between state waqfs and regular waqfs. Conclusions are drawn from studies of giant waqfs,

⁷ These types are called "charitable waqfs" and "family waqfs," respectively. Some works add a third category: "semi-charitable waqfs."

which were founded almost exclusively by a member of one of the most powerful families. But there is no empirical basis for generalizing from state waqfs to the far more numerous waqfs founded by people of lesser social status. It does not follow that the typical waqf founder participated in “financing Islam as a society.” Besides, for state waqfs themselves there are reasons to question whether motives other than generosity were prime motives.

Among the most influential case studies are ones focused on Ottoman public kitchens founded in the fifteenth and sixteenth centuries. Formally, their role was to distribute food as an act of charity. This term now brings to mind poor relief and social welfare. But through their deeds, and even more saliently their practices, Ottoman public kitchens targeted constituencies far broader than the materially destitute. Scholars and students qualified because of their devotion to studying Islam; merchants and travelers for being away from home; dignitaries because of their status; sufis for their piety; and waqf employees as a reward for their services. These groups were ranked hierarchically, and status determined the menu, the richness of the food served, portion size, and service quality. The poor got fed only when food was left over, and then only watered down soup and some bread, again hierarchically, with schooled men enjoying precedence over illiterates, and women at the bottom (Singer 2005, pp. 485-92, 497-99). In one soup kitchen, deed phrases such as “the poor and the humble, the weak and the needy” were interpreted to include the state bureaucracy, including the governor (Peri 1992). The concept of charity was manipulable enough to turn imperial public kitchens into instruments of political patronage.

Imperial hospitals formed another category of state waqfs built as expressions of charity. In pre-modern times, the wealthiest and most powerful families did not use hospitals; as in pre-modern Europe, they had physicians visit their homes. By the same token, imperial hospitals were not meant to care for the poorest of the sick. Social status and political connections determined who got admitted, not medical diagnosis or economic deprivation. Moreover, the quality of care depended on the patient’s place in the social ladder. Out-of-towners were admitted if they owned property. And even if the endowment deed explicitly authorized treatment regardless of faith, Muslims might receive priority over non-Muslims. Across admitted patients, the quality of service varied according to rank (Shefer-Mossensohn 2009, pp. 187-96).

These cases of soup kitchens and hospitals point to two problems with treating waqfs as expressions of charity. Because of their unrepresentativeness of waqfs in general, studies of state

waqfs are uninformative about waqfs as a whole. To draw conclusions from very prominent waqfs about the roles of waqfs as a whole is akin to viewing Google and Facebook as typical American firms of the early twenty-first century. Much less is known about regular public kitchens and hospitals. If few were founded anyway, the question would be moot. That public kitchens served the privileged disproportionately illustrates the second problem, which concerns the distributional roles of waqfs. Insofar as these institutions were expressions of generosity, their intended beneficiaries were groups situated well above the bottom of the social hierarchy. Hence, they could not have been intended to eliminate poverty. Apparently, their purpose was to perpetuate existing hierarchies and solidify their benefactors' reputations as protectors of existing privileges. In principle, of course, regular charitable institutions could perform equalizing functions that state waqfs did not. Our data set of Istanbul's waqfs is equipped to explore that possibility.

Selfish motives

The roles that selfish material motives play in determining the choices of waqf founders is another controversy awaiting systematic inquiry. By design, waqfs whose beneficiaries were mainly the founders and their families served wealthy people disproportionately. Nevertheless, many authors treat these waqfs, too, as motivated by charity. In this particular case, the beneficiaries of the founder's benevolence happen to be his or her relatives and descendants. That view conflicts with common conceptions of charity. At stake here is not simply semantics. Insofar as wealth owners wanted to shelter wealth, it was because of weak property rights. The degree and nature of material insecurity could have varied over time and across groups. This possibility invites inquiries into the political conditions that shaped incentives to create wealth shelters. It makes one expect a fall in wealth-sheltering waqfs as states took to nationalizing waqfs and adopted institutions to strengthen private property rights. One cannot test such logic through an analytic framework that downplays, even overlooks, the selfish incentives that induced the conversion of private property into waqfs.

We saw above that waqf-financed public goods often benefited the wealthy and powerful disproportionately. The beneficiaries could include the founder. Public water fountains provide a case in point. A water fountain's services were available to anyone within geographic reach. Yet, its location could be chosen to benefit the founder's household disproportionately. Sometimes, it would be placed near the founder's residence, allowing him or her to draw piped

water into private spaces. The location could reflect, alternatively, the founder's ethno-sectarian biases. Muslim founders tended to build fountains in predominantly Muslim neighborhoods, thus favoring their co-religionists (Cansunar 2021). Evidently, waqfs that conventional narratives classify as "charitable" may well have had consumption value for their founders. As with family waqfs, water fountains underscored the need to explore waqf functions without presuming that they manifested charity and philanthropy.

Role of religiosity

Broad segments of waqf scholarship treat the waqf's use over a millennium as expressions of religiosity. A common claim is that waqf founders were driven by Quranic commands to be generous and compassionate; and Islamic teachings from after the mid-700s hold that revered early Muslims endowed waqfs as acts of Islamic piety.⁸ Many remembrances of early Muslims are apochryphal (Brown 2011), and those referring to waqfs predating 750 are all controversial. But even genuine remembrances counseling generosity, or, for that matter, the Quran's compassion-instructing verses, do not imply, by themselves, that religiosity drove waqf founding. The case is easiest to make with respect to explicitly religious services—a mosque, a house for its imam, or Quran recitations. But even in these cases other motivations could be at play. In founding a mosque that took her name, a wealthy woman enhanced her social status. Ordinarily, she also delivered control over its staffing. An empirical challenge, taken up in what follows, is to find clues in surviving records as to the where and how religiosity made a difference. This is a component of the general task of determining underlying motives and their variations across time and groups.

4. Data Sources and Master Trends

In addressing the aforementioned controversies, we rely mainly on an original data set of waqf deeds registered in Istanbul's Islamic courts from 1457, four years after the city became the Ottoman capital, to the founding of the Turkish Republic in 1923. By 1550, Istanbul was the world's second largest city, after Beijing; and by 1650, it was the largest. It then fell to fourth in

⁸ The most commonly invoked Quran verses: 2:177, 195, 215, 254, 261, 262, 265, 267, 273; 3:92, 115, 134; 9:60, 99, 103. According to a remembrance of his Muhammad's life, which dates from after his death in 632, he endowed some of his possessions to finance charity, promoting a norm through this act of generosity; and his close companions who succeeded him as the Muslim community's helm ostensibly endowed valuable lands for the benefit of specific constituencies (Leeuwen 1999, pp. 39-42).

1750, fifth in 1800, dropping out of the top-5 only around 1875 (Chandler 1987). During most of our period of analysis, then, Istanbul was among the largest cities of the world. It was also the largest Muslim-governed city, the main commercial center of the Eastern Mediterranean, and the capital of the region's most powerful state. Iran's Safavid Empire, the top Muslim-governed Ottoman rival, would offer an alternative historical context for studying the waqf's roles. Alas, fewer records were kept until the 1700s, and, for sundry reasons, successive regimes systematically destroyed records of their predecessors (Amanat 2012, pp. 294-95). Hence, for reasons of data availability, too, Istanbul is a good place to investigate the controversies described in the previous section.

As a city with enormous strategic value to the Ottoman sultan, Istanbul was likely to get more than its share of waqfs supplying public goods. Around 22 percent of all Ottoman waqfs were in Istanbul, which in the middle of our period held about 3 percent of the empire's total population.⁹ Until the 1800s, when leading cities of Western Europe took to providing modern social services, Istanbul's living standards favorably impressed European visitors (Brentjes 2010, I:437, II:135; MacLean 2004, pp. 155-56; Campbell 1758, pp. 149-50). All these factors make Istanbul a particularly meaningful place for studying the waqf's functions. We are exploring motives, functions, beneficiaries, and trends in a context where by global standards the waqf seemed, for centuries, to be an impressive vehicle of public finance.

Our data set comes from three sources. The first consists of a 1600-dated waqf census for Istanbul; it gives the deed of the 3265 waqfs in operation (Canatar 2004). Selecting randomly across neighborhoods and time, we digitized and coded 1068 of these deeds (32.7 percent of the total). The second data source is a catalog of 9867 waqf deeds recorded in surviving Istanbul court registers; its coverage runs from 1457 to 1923 (Aydın et al. 2015). This register-based catalog was assembled by İSAM, an Islamic Studies institute. İSAM's team browsed all the 9872 surviving registers of the 27 Islamic courts in operation during the 466-year period to the declaration of the Turkish Republic. Under Islamic law, every waqf deed had to be approved and recorded by a cleric; for regular waqfs, that legal expert was the local judge. In Istanbul, the

⁹ Orbay (2017, p. 136) conservatively estimates that more than 60,000 waqfs were founded across the Ottoman Empire; he adds that the figure excludes many cash waqfs as well as waqfs founded to pay neighborhood taxes. Given that 39.7% of all of Istanbul's regular waqfs were cash waqfs, the total must have exceeded 70,000. The number of waqfs founded in Istanbul was around 15,000. Istanbul's population in 1700 was around 385,000 and that of the Ottoman Empire 14 million in the late 1900s, the middle of our period (Koç 2010, p. 195; Koç 2013).

founder could register his or her deed at any one of its many Islamic courts, some of which operated intermittently. The team browsing the registers found the deed of about 65% of the regular waqfs from the period in question. This massive sample appears representative of the corpus of surviving registers.¹⁰ We digitized a spatially and temporally randomized sample of 898 entries in the İSAM catalog (9.1 percent of the total). The third and smallest source is 44 court registers from 1602-1831 that we ourselves digitized for other purposes. These registers contain 20 waqf deeds missing from the İSAM catalog.¹¹

The two main components of the core data set overlap for 1457-1599. But in terms of cases duplication is minimal because very few court registers have survived from before 1600. 89.4% of the deeds listed in the İSAM catalog are from 1600-1923. Drawing on these two data sources has made our core data set representative both spatially and chronologically of Istanbul over close to a half-millennium. The combined sample, including those from our own digitized registers, forms our core data set of 1986 finely coded waqf deeds spanning a 466-year period. Double-counting was avoided by merging the records of waqfs contained in both the census and catalog samples.¹²

Each entry in this core data set gives the waqf's founding date and its location as well as its founder's name, religion, and (if any) honorific title(s). The entry also states whether the endowment consisted of real estate or cash, and names primary functions that the waqf was supposed to serve immediately, along with one or more sets of contingent functions. For a typical example of the catalog's 9867 entries, consider entry 9308. The deed's record on pages

¹⁰ The estimate is derived from two sub-estimates, one of the Aydın et al. (2015) catalog's comprehensiveness and the other of the non-surviving registers. Of the deeds recorded in 44 registers that we ourselves have digitized and 40 others that have been transliterated in full, the team surveying the 9872 surviving Istanbul registers missed about 10% of the waqf deeds; the omissions appear random. And the catalog itself suggests (p. 14) that 3,000 to 4,000 registers belonging to the 27 courts perished in natural disasters or otherwise disappeared before the formation of a centralized archive. Jointly, these sub-estimates yield a comprehensiveness measure of around 65%. The 44 that we have digitized are Galata 24 (1602-3), Galata 25 (1604), Galata 27 (1604-5), Istanbul 1 (1611-13), Istanbul 2 (1615-16), Galata 41 (1616-17), Galata 42 (1617), Istanbul 3 (1617-18), Istanbul 4 (1619), Istanbul 9 (1661-62), Istanbul 16 (1664-65), Galata 130 (1683), Galata 145 (1689-90), Istanbul 22 (1694-96), Istanbul 23 (1696-97), Galata 197 (1704-5), Bab 89 (1708), Galata 224 (1713-16), Bab 122 (1718-19), Galata 266 (1726-27), Bab 154 (1730-31), Galata 279 (1731-33), Bab 173 (1740), Galata 308 (1745-46), Bab 204 (1751-53), Galata 353 (1759), Galata 360 (1760-61), Galata 379 (1765), Bab 240 (1767-68), Galata 410 (1770-71), Bab 269 (1778), Galata 515 (1792-93), Galata 526 (1794-95), Istanbul 68 (1796-97), Galata 541 (1797-98), Istanbul 70 (1797-99), Galata 567 (1803), Galata 587 (1808-9), Istanbul 105 (1811-12), Istanbul 122 (1817-18), Galata 636 (1820-21), Istanbul 142 (1824), Istanbul 151 (1827-29), and Istanbul 156 (1830-31). Transcripts of the first fifteen registers, all from 1600-1700, are reproduced in the modern Turkish script and English summaries in Kuran (2010-13).

¹¹ The registers are listed in the preceding note.

¹² The overlap between the two samples consisted of one deed.

13b-14a of the Beşiktaş Court's Register 79 indicates that the waqf was founded in 1672 by Dilgüşâ Hatun, a woman with an honorific title pointing to a distinguished lineage, or an influential husband, or both. Her cash endowment consisted of 400 esedi kuruş. It was to earn an income through loans. During her lifetime, she would serve as the waqf's caretaker, and its revenue would support herself and a mausoleum employee. After her death, the revenue net of the caretaker's fees would finance, on the one hand, Quran recitations for her own soul, the Prophet's soul, and the souls of her relatives, and, on the other, assistance to poor Muslims. An earlier example is entry 2879 of the waqf census. It records a deed filed in 1570 by Mustafa en-Nâyib, a male commoner. Mustafa's endowment consisted of a house and an outside toilet located on a plot abounding in fruit trees. During his lifetime, these assets were to benefit Mustafa himself. After his death, the beneficiaries would be his wife and children, then their descendants, then the next generation of descendants, and so on until his family line expired. If that point was reached, the beneficiary would become the imam of the neighborhood mosque. The deed stipulates that the imam would recite the Quran daily, presumably in return for the property's usufruct rights.

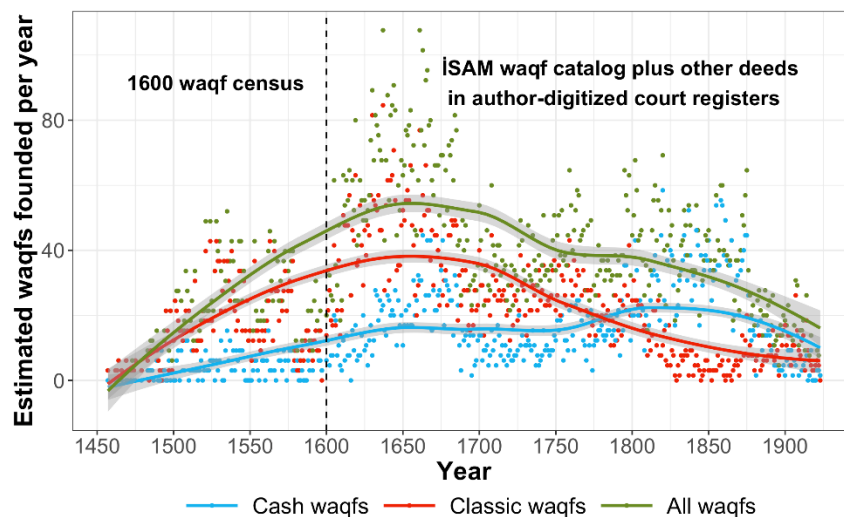


Fig. 2. New waqfs registered in Istanbul courts, broken down by types, 1457-1923. The dots represent numbers founded in each year in our core data set, multiplied by 3.058 for the pre-1600 period (to account for randomly uncoded part of the census) and by 1.538 for 1600-1923 (to account for the deeds missed by İSAM's browsers and not within our own digitized registers). Each of the three curves smoothes the annual data through LOESS (locally weighted smoothing). Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

For trends in waqf foundings, we are not restricted to our core data set. Because the census and the catalog both provide information on waqf founding dates and type (classic or cash) for all entries, we can provide time trends using a giant sample of 12,110, which we call our “full data set.” It consists of 3265 deeds contained in the 1600 census along with all of the İSAM catalog’s 8825 cases for 1600-1923, plus 20 additional digitized cases for 1602-1833.

Our full data set shows a rise in both types of waqfs to around 1650 (Fig. 2). Thereafter, classic waqfs lose popularity over time, whereas cash waqfs remain steady for a century or so, then reach a second peak around 1850. The post-1850 period marks the twilight for both types. The difference in trends after 1750 reflects the waqf privatizations and nationalizations gathering steam. The lands and buildings of classic waqfs started to get privatized through a formally legal but actually corrupt type of long-term lease (*icâretelyn*), with the connivance of judges who were supposed to protect them. The impetus behind the privatizations was the higher returns available through alternative, more flexible investment instruments. Meanwhile, the Ottoman state tried to overcome its acute budget shortages by nationalizing waqfs. At first, it did this surreptitiously through neighborhood associations established ostensibly to help financially troubled waqfs, but actually to increase its fiscal capacity. Nationalizations were formalized in 1826 through the formation of a Waqf Ministry. Both privatizations and nationalizations were directed at classic waqfs; few cash waqfs were affected (Cansunar and Kuran, sect. 6). Critical is that the nationalization drive made Istanbul’s classic waqfs less secure, lowering their value as wealth shelters.

Recall that Ottoman jurists settled their cash waqf controversy in the 1570s, a time of chronic credit shortage.¹³ At the time, Fig. 2 shows, cash waqfs were gaining popularity. Evidently, the high cost of credit was already making judges more tolerant of the cash waqf; they were allowing waqfs to lend at interest for the benefit of boosting credit supply. In other words, pragmatists did not emerge victorious merely through ideological persuasion. They were aided by a growing constituency favoring looser credit.

¹³ Mandaville (1979) narrates the controversy and its resolution. For the period 1602-1799, Kuran and Rubin (2018) show, the average real interest rate was 18.8% in Istanbul’s private credit market, around double the rates in Western Europe. In the absence of cash waqfs, the gap would have been even larger. On the institutional sources of Ottoman financial inefficiencies, see Kuran (2011, chap. 8).

5. Waqf Functions

Since a waqf could finance literally anything that Islamic courts considered legitimate, waqf deeds include a bewildering variety of stipulations. The maintenance of a particular clock is one example of an uncommon function; support for the poor of a certain dervish lodge is another.¹⁴ For our purposes here, the stipulations can be grouped in seven broad categories according to intended beneficiaries and religious significance. Another classification will follow, for insights into the distributional effects of the regular waqf.

Functional categorization

The first two categories were meant to shelter wealth; one involves assigning income to one's own support, the other to aiding one's relatives. The third and fourth categories are religious functions: Quran reading and other religious services. The latter category includes building a mosque, but usually the service is more modest. The provision of an existing mosque's illumination is one popular subcategory. Another is financing housing for a mosque employee, such as its imam. Schooling is the fifth category. This is a partly religious and partly secular, hybrid category. All pre-modern Islamic schools had a Quran-based curriculum, so financing schooling was an inherently religious act. But every school imparted skills that we now classify as secular, such as reading and writing, arithmetic, geography, dispute adjudication, and registering contracts (Ergin 1939-43/1977, pp. 5-302; Küçük 2020, chap. 2). The final two functions consist of secular social services. One is support for the poor. Other services without an explicitly Islamic dimension form the last category. Examples include public kitchens, hospitals, bathhouses, fountains, and roads.

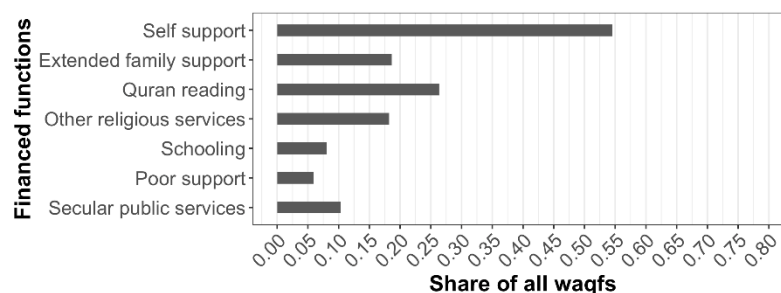


Fig. 3. Primary functions financed by waqfs, 1457-1923. Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

¹⁴ See the deeds of entries 3760 and 4195 in Aydın et al. (2015): Evkâf-ı Hümayun Court 647 (1877), 43-44, and Kismet-i Askeriyye Court 1823 (1872), 55b-56a.

Figure 3 shows the incidence of the seven categories among primary stipulations. The shares add up to more than 100 percent because many waqfs financed more than one service type. Self-support is by far the most prevalent function, and extended family support is also substantial. No fewer than 71.5% of all waqfs supported the founder and/or the founder's relatives (54.5% founder, 18.6% extended family). By contrast, 34.5% of waqfs had one or more religious functions (26.3% Quran reading, 18.2% other religious services). The remaining three categories appear in few waqfs. Schooling receives support from 8.0% of all waqfs, poor support from 5.9%, and other secular services from 10.4%. These results confirm that wealth sheltering was indeed a top goal of founders. Religious services were also common but far less so than wealth sheltering. The last three categories, those that receive the lion's share of attention in waqf scholarship, turn out to be uncommon choices among founders of regular waqfs.

Classic vs. cash waqfs

As already explained, the endowment of an Istanbul waqf consisted of either real estate or cash. Although formally all waqfs were formed in perpetuity, as a matter of practice cash waqfs were more fragile. Whereas land was indestructible, a cash endowment could disappear simply through nonperforming loans. It was relatively more conducive to embezzlement. Accordingly, most cash waqfs disappeared within a century of their founding (Çizakça 1995, pp. 317-20). Classic waqfs formed by endowing real estate could also fall onto hard times, because of unanticipated economic shocks, natural disasters, negligence, mismanagement, or outright corruption. But the visibility of classic waqf assets made them easier to monitor, and their endowment always retained some value. Given the consequent differences in durability, it is instructive to know whether the shares of our seven categories of primary functions differed by waqf type.

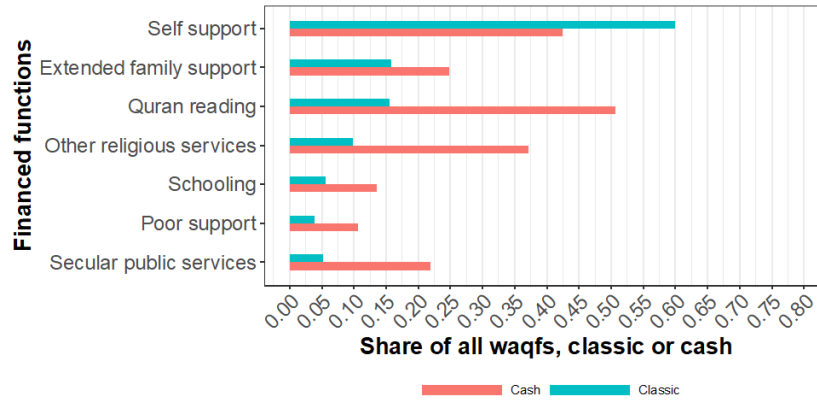


Fig. 4. Primary functions financed by waqfs, 1457-1923, broken down by waqf type. Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Systematic differences did indeed exist, Fig. 4 shows. Waqfs established as a wealth shelter for the founder (self-support) were disproportionately likely to be of the classic type. For all other functions, the cash waqf was disproportionately common. Given the relative durability of the classic waqf, it is understandable that it was the preferred vehicle for wealth sheltering. The greater use of cash waqfs for other functions admits two interpretations. Founders may have wanted to give caretakers of their waqfs more discretion in investment decisions. The cash waqf served this purpose because the risk-return profile of its portfolio could be adjusted simply by redirecting loans across sectors or borrower types. The founders of waqfs may also have been less concerned about the durability of public goods of use mainly to non-kin.

Secular public services

If only because the use of the waqf to finance charitable complexes receives enormous scholarly attention, it is of interest to explore the distribution of secular public services financed by regular waqfs. Breaking those in our sample into subcategories reveals another striking pattern, that the provision of water accounts for the lion's share. Of the 216 primary secular functions mentioned in the core data set, 153 (70.8%) involved water supply, as did 16 of the 64 (25%) contingent secular functions (Figs. 5, 6). Usually the purpose was the building and maintenance of a water fountain. The motive for bringing water to a neighborhood was rarely just philanthropy. As already mentioned, the founder's household generally benefited disproportionately. The second most common secular service was payment of a neighborhood's taxes; it comprised 12% of all the named secular functions. No other secular service came close to these two. Revealingly, the

only service whose beneficiaries might have been exclusively the poor, a public kitchen, was very uncommon.

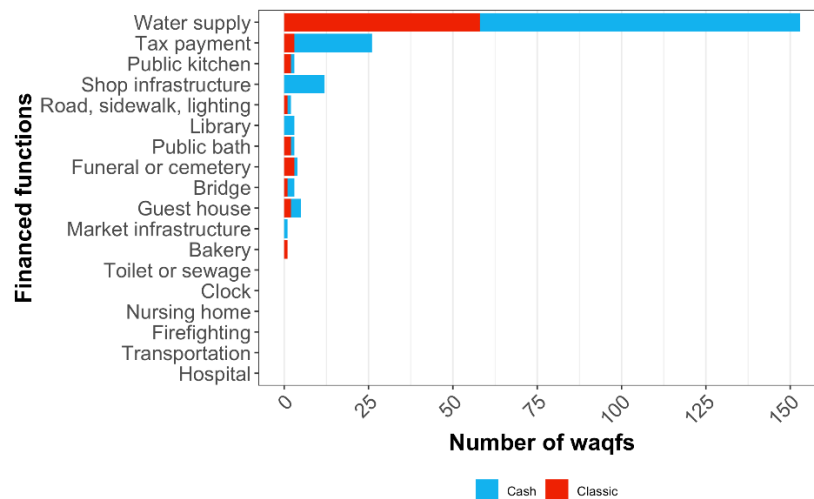


Fig. 5. Primary secular public functions financed by waqfs, 1457-1923. For each category, the classic-cash distribution is given within the corresponding bar. Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

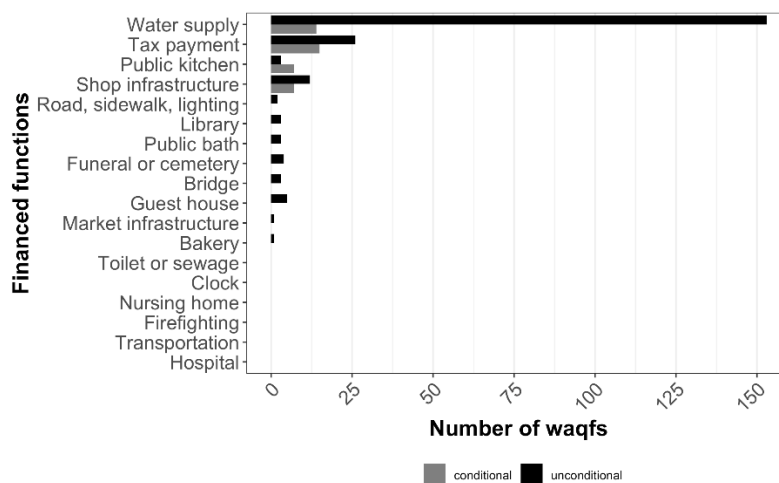


Fig. 6. All secular functions financed by waqfs, 1457-1923, primary and contingent. Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

In principle, founders could want their waqfs to finance charity or philanthropy after their death or the end of their family line. Might other services have been more prominent among contingent waqf functions? On the contrary, secular public services were even less prominent among the contingent functions named in Istanbul's waqf deeds. Just 43 secular public services

appear as contingent functions in our sample (2.1% of all deeds), as against 206 primary secular public services (10.4% of deeds). Fig. 6 disaggregates the two categories.

Distributional categorization

To return Fig. 3, the general distribution of primary functions suggests that Istanbul's waqfs served to preserve material inequalities. Wealthy waqf founders appear in deeds as primary beneficiaries 25 times as often as the poor do. But two of the categories excluded from this comparison—Quran reading and other secular services—also had distributional implications. Of the social services grouped within other secular services, public kitchens might have benefited the poor disproportionately. Although imperial public kitchens served mainly privileged groups, public kitchens endowed by people of lower status may well have benefited the poor. Whatever the differences, they do not matter to the contrast apparent here. Just 3 waqfs (0.1%) included the financing of a public kitchen among its purposes. To turn to Quran reading, the targeted beneficiaries could have been the entire Muslim community. Alternatively, the purpose could be to win favor in God's eyes for one or more named individuals. The most common named beneficiaries were the founder himself or herself, designated relatives of the founder, and the Prophet Muhammad. As with the rituals financed through Medieval Europe's chantries (Richardson and McBride 2009, sects. 1-2; Saul 2017, chap. 7), the financed Quran recitation was meant to continue forever, benefiting the named persons indefinitely. Of all Quran reading endowments, 53.5% were for the benefit of the founder and/or the founder's family. Not one was for the souls of people who died poor. So in a broader sense, taking into account the distribution of both world and otherworldly benefits, Quran readings benefited the wealthy disproportionately.

For a broader measure of the waqf's distributional consequences, it will help to create two new variables. The first, "maximal poor support" is the union of poor support and public kitchens. This measure thus includes every waqf that assists the poor either directly by naming them as beneficiaries or indirectly by stipulating the use of resources to run a public kitchen. In Ottoman Istanbul, as in other places under Islamic law, judges took "poor" to encompass all clerics by definition. Not all clerics were materially poor. Hence, the figures in question overstate the extent to which waqfs were used as vehicles to reduce inequalities, broadly defined to include both worldly and otherworldly opportunities. They provide an upper limit to the share of waqfs that supported the materially deprived. The second new measure, "founder-family

support,” is the union of self support, extended family support, and Quran reading for the benefit of the founder and/or one or more of the founder’s relatives. Fig. 7 compares founder-family support with maximal poor support. The former appears as a primary waqf objective twelve times more often as the latter (71.5% vs. 5.9%). Also telling is that just 0.3% of all waqfs were founded exclusively for the poor. These low shares for the poor are all the more striking because of the emphasis in waqf scholarship on the waqf’s role as an instrument of charity.

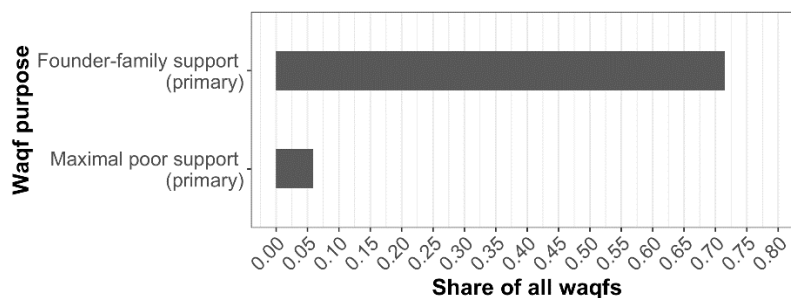


Fig. 7. Shares of waqfs providing primary support to the poor and to the founder’s self and/or relatives, 1457-1923. Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Herein lies additional evidence, then, that the regular Islamic waqf was mainly an instrument for promoting the temporal and otherworldly interests of the founder and his or her family. Neither philanthropy nor poverty alleviation were among its main purposes. Works that characterize the Islamic waqf in general as an instrument of charity on the basis of cherry-picked examples of state waqfs are misleading.

Every waqf deed contained provisions for redirecting funds if and when certain primary functions could no longer be met. In the case of self-support, an event that would require reallocation would be the founder’s death. With family support, the founder’s family line would have to end. With a public good, the stipulated services would have to become undeliverable, as when a natural disaster renders a neighborhood road useless by making the neighborhood lose all its inhabitants. All such possibilities required contingent spending instructions. Typically, they redirected funds to religious or secular public goods, sometimes along with “the poor of Medina.” The poor of Medina were also the ultimate beneficiaries of every regular waqf’s revenue in the event that it became impossible to fulfil *any* of its founder-chosen functions, primary or contingent. In practice, however, the poor of Medina rarely benefited from Istanbul’s waqfs, or, for that matter, from waqfs elsewhere. Aid intended for them was routinely usurped by local officials or other privileged people (Faroghi 1994, pp. 86-88). The existence of widespread

poverty was an unchanging feature of Medina until the discovery of Arabian oil (Ochsenwald 1984, pp. 4-5, 23). Medina would have been a rich town if it received revenue from even a fraction of the Muslim world's dysfunctional waqfs. Contingencies mentioned in deeds did sometimes materialize. Ordinarily, though, the supervising judge colluded with the caretaker to appropriate the revenues of troubled waqfs.¹⁵

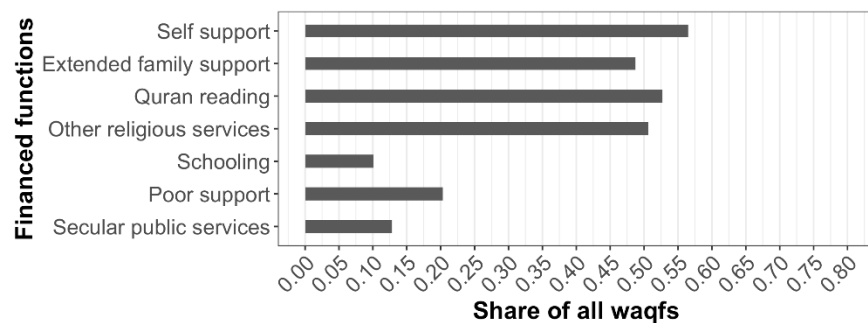


Fig. 8. Primary and contingent functions financed by waqfs (except formulaic “poor of Medina”), 1457-1923 (core data set). Data sources: Aydin et al. (2015), Canatar (2004), and court registers listed in note 15.

When conditonal waqf functions are combined with the primary ones, the distribution across categories looks markedly different (Fig. 8). Though self-support rises slightly relative to the primary share shown in Fig. 3 (54.5% to 56.5%), the other six categories rise substantially. Extended family support rises 2.6-fold (from 18.6% to 48.8%), indicating that half of all waqfs are founded to shelter wealth for a family over many generations, generally with the founder retaining control during his or her lifetime. The other functions also rise, with Quran reading (52.7%) and other religious services (40.6%) reaching levels commensurate with extended family support. Founders may have wanted to shift resources from worldly family support to otherworldly support after only the latter mattered. The last three categories remain much smaller than the first four even with inclusion of primary provisions.

Waqf scholarship has tended to lump together contingent and primary functions. This is logically equivalent to failing to differentiate between immediate and distant returns of a long-term investment. The confusion in the literature is reflected in the İSAM catalog for Istanbul waqfs, in use here. İSAM is one of the world's leading Islamic Studies centers, and this 2015 catalogue is the most ambitious effort anywhere to catalog waqf deeds. A column of the

¹⁵ For examples, see Behrens-Abouseif (2002, p. 67) and Behar (2003, pp. 78-83). On waqf corruption generally, see Kuran (2016, sect. 5).

catalogue lists up to three functions to describe each waqf's main purpose. Alas, the choices conflate primary and contingent waqf functions. Evidently, the İSAM team instructed to list primary functions were not instructed to prioritize primary functions. In browsing a deed, they simply listed whichever one, two, or three functions caught their eye first. Sometimes they omitted the primary services in the deed and listed contingent ones instead, conveying a critically distorted sense of the waqf's roles, especially if it was privatized through corruption or nationalized before any its contingent provisions were implemented. The İSAM catalogue's conflation of the two service types is at once a reflection of the confusion that has pervaded waqf scholarship and a contributor to its perpetuation. It is worth reiterating that the information in our core sample was extracted from the original deeds. We used the İSAM catalogue merely to produce a randomized set of deeds to find and code.

6. Waqf Founders

Under Islamic law, a waqf could have only one founder. How were the founders of Istanbul's regular waqfs distributed across status groups? Nine status groups may be distinguished, the first two consisting of commoners, who appear in records as untitled. We separate them by gender, because females had inferior legal, economic, and social rights relative to males. The shares of female and male founders appear in the bottom two rows of Fig. 9. Female low elites form our third category; they consist of distinguished women outside the Sultan's household.¹⁶ Next are four categories of male low elites. At the bottom of this category are pilgrims who, upon returning from the arduous journey to Mecca, acquired a title signifying the fulfillment of this religious duty.¹⁷ In pre-modern times, only a rich man could afford the roundtrip between Istanbul and Arabia. Hence, the title was also a signifier of wealth. The remaining three male low elite categories are clerics, low officials, businessmen.¹⁸ The final two groups, in the top rows of Fig. 9, consisted of members of the sultan's family and exclusively male officials in leadership positions within his administration.¹⁹ High elites are separated by gender; the females within the group had no formal role in government, though some exercised formidable political power by

¹⁶ Women with the title *hanım*, *hatun*, or *kadın*.

¹⁷ *Elhaj* or *hacı*.

¹⁸ Clerics: *aziz*, *baba*, *dede*, *derviş*, *efendi*, *hafız*, *halife*, *hoca*, *mevlana*, *molla*, *seyyid*, *sufi*, *papa*, *şeyh*, or *veli*. Low officials: *beşe*, *çavuş*, *gazi*, *kaptan*. Economic elites: *çelebi*, *reis*.

¹⁹ Male high elites: *ağa*, *bey*, *sultan*, *paşa*. Female high elites: *sultan*.

virtue of their closeness to the Sultan and presence in the Palace (Peirce 1993, chaps. 4-9; Iyigun 2013; Özgüleş 2017, chap. 1; Argıt 2020, chaps. 2, 4-6). For individuals with two honorific titles, we used the more prestigious one (typically, dropping the pilgrim signifier).

Looking at the distribution across the nine status categories, we see that female commoners constituted 7.9% of all founders and male commoners 17.6%. At 28.7%, low female elites formed the largest category. Collectively, male low elites formed 25.5% of all waqfs, over half of them by clerics (13.0%). Unsurprisingly, male high elites, a tiny group, formed a very disproportionate share of all regular waqfs (17.8%). One reason is that they tended to be very wealthy. Another was the norm, discussed earlier, that people in high positions endowed public goods as a mark of social distinction. Still another is that the Sultan rewarded members of his inner circle, including female relatives, through land grants, which they were expected to use partly to contribute to the legitimization of his rule by financing public goods.

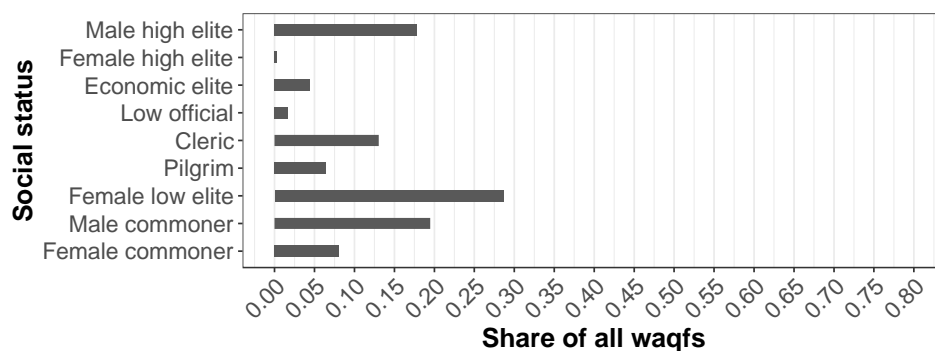


Fig. 10. Distribution of the social status of waqf founders, 1457-1923. Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

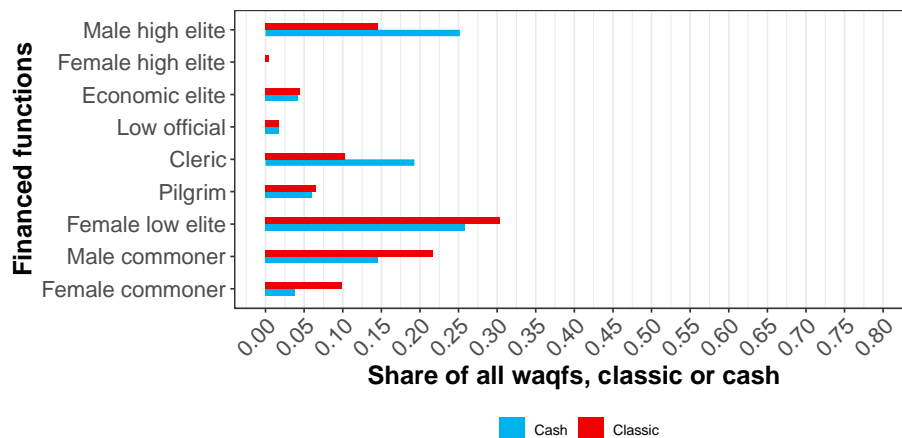


Fig. 11. Distributions of the social status of classic waqf founders and cash waqf founders, 1457-1923. Data sources: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Partitioning the distribution across status groups by waqf type yields two additional insights (Fig. 10). A substantially larger share of cash waqfs than classic waqfs (58.2% versus 37.1%) were founded by male elites, high or low. Remember that the cash waqf violated both the immovable endowment provision of classical waqf law and the anti-interest provisions of Islamic law generally. Apparently, male elites were the main beneficiaries of the exception allowed through the showdown between conservative and pragmatic clerics. That illuminates the defeat of opposition to the cash waqf. The pragmatic clerics who legitimized it were reflecting the desire of the Ottoman Empire's ruling coalition, which included their own profession. The flipside of the above comparison is that the three most vulnerable status groups (female low elites and commoners of both genders) formed a substantially larger share of classic waqfs than cash waqfs (62.9% versus 41.8%).

As we know, under Islamic law all waqfs were inviolable, and waqf assets were more secure against expropriation than un-endowed private property. In the rare cases when waqf confiscations occurred, the targets were almost always classic waqfs founded by male elites, sometimes to alleviate a perceived threat to the Sultan's authority. Rulers confiscated classic waqfs because endowments consisting of real estate were more visible than ones consisting of loans. If the caretaker of a cash waqf claimed that its assets were tied up in nonperforming loans, disproving the claim could prove impossible. This logic helps to explain why male elites favored cash waqfs. Female elites were less threatened by expropriation generally, because rarely did they pose a political threat to the Sultan. That must have been why, like commoners, they tended to favor the classic waqf to the cash waqf.

7. Statistical Analysis of Founders and Functions

The presented distributions suggest that social groups differed systematically in how they used the waqf. But reliable interpretations require controlling for possible confounders. The deeds were registered over many centuries and in 27 separate Istanbul courts spread across the city. Hence, the reported comparisons could be concealing time trends and neighborhood effects. Economic crises could also have affected individual choices, as could periods of special significance. For example, the propensity to use the waqf as a wealth shelter could have risen in times of heightened economic uncertainty. It could have fallen, with wealth flowing instead to philanthropy or charity, during the month of Ramadan, when dawn-to-dusk fasting intensifies

religiosity (Campante and Yanagizawa-Drott 2015, Al-Ississ 2015). It might have risen also in times of political turbulence. Statistical analysis can be used to rule out that the observed patterns are artifacts of such effects.

Vulnerability and waqf functions

The inclination to use the waqf as a wealth shelter should have been pronounced especially among economically and socially vulnerable groups. For reasons given above, women formed one such group. Converts to Islam constituted another vulnerable group. They were widely suspected of converting opportunistically, to benefit from Muslim privileges, as opposed to recognition of Islam as the truest religion (Boyar and Fleet 2010, pp. 136-37). Living under a cloud of suspicion must have limited the economic opportunities of converts. Istanbul's court records identified all converts as such, precisely because judges considered them less trustworthy than Muslim-raised individuals.

Our initial sets of regressions estimate, for each of two outcome variables, self-support and secular public services, the roles of being female or a convert. The OLS models take the linear form

$$y_{ijt} = \alpha_1 \text{female}_{ijt} + \alpha_2 \text{convert}_{ijt} + \beta \mathbf{X} + \psi \mathbf{Z} + \gamma_j + \theta_t + \epsilon_{ijt}, \quad (1)$$

where the dependent variable y_{ijt} is waqf i registered in court j at time t , female_{ijt} and convert_{ijt} are the independent variables of principal interest, \mathbf{X} is a vector of motivational control variables, and \mathbf{Z} is the vector of geographic control variables. γ_j and θ_t represent court fixed-effects and period fixed-effects, respectively, and ϵ_{ijt} is the error term. The controls will be described and justified as they are brought into the analysis.

Table 1 presents specifications of (1) that estimate how vulnerability affected the probability to use the waqf for self-support. Specifications 1 and 3-7 show that, relative to males, women were indeed significantly more inclined to found waqfs to enhance personal material security. Specifications 2-7 suggest that converts shared the same inclination. Although some converts were elites employed by the Palace, evidently their lack of local family support inclined them to use the waqf for self-support. According to specifications 5-7 of the same table, the results hold when the independent variable include high elites, a composite status category consisting of the the richest and most powerful groups in our nine-way breakdown. "High elite" appears consistently with a negative coefficient, significantly so in the presence of various controls. Evidently, "high elite" status made people less inclined to include self-support among

the functions of any waqf they established. This point shall be revisited when we analyze differences among status groups comprehensively.

Table 1
Effects of social vulnerability on making self-support a primary waqf function, 1457-1923

| VARIABLES | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Female | 0.11*** (0.02) | | 0.10*** (0.02) | 0.10*** (0.02) | 0.09*** (0.02) | 0.07** (0.03) | 0.06** (0.03) |
| Convert | | 0.09*** (0.02) | 0.08*** (0.02) | 0.06** (0.02) | 0.06*** (0.02) | 0.06** (0.03) | 0.03 (0.03) |
| High elite | | | | | -0.04 (0.03) | -0.08** (0.03) | -0.06* (0.03) |
| War year | | | | | | 0.13*** (0.02) | 0.10*** (0.02) |
| Revolt year | | | | | | -0.05 (0.06) | 0.02 (0.06) |
| Ramadan founding | | | | | | 0.04 (0.05) | 0.01 (0.05) |
| Price variability | | | | | | 0.02 (0.02) | 0.02 (0.02) |
| Intercept | 0.50*** (0.01) | 0.52*** (0.01) | 0.48*** (0.02) | 0.57*** (0.07) | 0.58*** (0.07) | 0.49*** (0.02) | 0.53*** (0.07) |
| Observations | 1986 | 1986 | 1986 | 1954 | 1954 | 1644 | 1644 |
| Adjusted R ² | 0.011 | 0.007 | 0.015 | 0.026 | 0.027 | 0.032 | 0.052 |
| Period fixed-effects | No | No | No | Yes | Yes | No | Yes |
| Court fixed-effects | No | No | No | Yes | Yes | No | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

The foregoing results hold up under various controls. Period and court fixed-effects are included in specifications 4, 5, and 7.²⁰ War years increased the Sultan's need for revenue, raising his incentive to expropriate private property. Hence, one might expect war years to have heightened the inclination to establish a waqf.²¹ Specifications 6 and 7 support this hypothesis,

²⁰ We distinguish among four court categories. The first consists of pre-1600 cases from the waqf census, for which the court of registration is not mentioned. The other three are all for 1600-1923: courts located within the walls of Istanbul or areas settled by the Turks immediately after the 1453 conquest, courts located in the northwestern part of the city's European side (the unwallled side of the Golden Horn), and courts located in Istanbul's Asiatic side. As for periods, they are 1457-1599; 1600-99, 1700-99, 1800-1923.

²¹ 603 waqfs in or sample (30.4%) were founded in war years, which were: 1457, 1461-65, 1467, 1473-76, 1478-80, 1483, 1485, 1491, 1493, 1497, 1499-1500, 1513-18, 1521-22, 1526, 1528-29, 1532, 1534-35, 1537-43, 1545, 1548, 1551-53, 1558, 1560-61, 1565-66, 1570-71, 1574, 1578, 1583-84, 1588, 1592-93, 1595-96, 1599, 1601, 1603, 1605, 1609, 1620-21, 1644, 1649, 1654-57, 1663-64, 1673, 1683-88, 1690-91, 1694-98, 1711, 1716-17, 1733 1735, 1737, 1739, 1745, 1757, 1770, 1774-75, 1789-91, 1798-99, 1805-7, 1809-10, 1812-13, 1815, 1821-22, 1825, 1827, 1830-31, 1839-40, 1853-55, 1877-78, 1880-81, 1893, 1897, and 1911-22. In each case, the "war year" variable includes the preceding year as well, because war preparations began, and therefore military spending rose, before the start of fighting. The results hold up when the preparation window is considered six months.

with and without court and period fixed-effects. The coefficient is large and significant in each case. War years raise the probability of founding a waqf by 10 to 13 percent relative to times of peace. Revolts against the Sultan could have had a similar effect, except that they were over in a matter of weeks. Indeed, the “revolt year” coefficient is insignificant.²² The last two specifications show also that a founding date in the month of Ramadan was not a significant motivator of founding a waqf. This result may surprise scholars who consider waqf founding an expression of religiosity. It accords, though, with the institution’s original purpose, which was not religious.²³ Price uncertainty, which is a proxy for economic uncertainty, is another variable without significance.²⁴ In brief, the basic results of the first four specifications hold up under a battery of statistical controls. Whether due to gender or religious bias, social vulnerability incentivizes people to form waqfs for personal security. By making private property vulnerable to expropriation, war years increase incentives generally for endowing assets as a means of self-support.

Specifications that estimate the effects of vulnerability on the probability of using the classic waqf and the cash waqf for self-support are reported in Appendix A. Regardless of controls, they indicate that females and converts seek material security through classic waqfs. The added specifications show also that high elites are less likely to form either type of waqf for enhancing their own material security, though our data lack the power for precise estimation.

Table 2 repeats the exercise with secular public services as the dependent variable of equation (1). Females are significantly less likely, and high elites significantly more likely, to use the waqf to provide secular services such as a fountain, tax assistance, or a library. Revealingly, the war year control is insignificant. War-induced expropriation risk would not have heightened the desire to engage in philanthropy as it incentivized self-protection. Four geographic controls

²² Start date of Istanbul revolts: 18 May 1622, 15 June 1623, 7 February 1632, 8 August 1648, 13 June 1651, 8 May 1655, 28 February 1656, 5 September 1687, 17 July 1703, 28 September 1730, 15 September 1731, 6 June 1740, 25 May 1807, 16 November 1808, 16 June 1826. The years are from Yıldız (2017, table 1.1), and the start dates are from widely available online histories. A “revolt year” consists of the period starting one year before the revolt’s start date and ending one year later. A wide window is meant to capture the possible effects of rising social tensions in periods preceding a revolt and unusual political uncertainty in its aftermath. Statistically, the results survive when the window is narrowed to six months before and after the revolt’s start.

²³ Another specification, not reported here, replaces Ramadan founding with a founding date in Shaban, the month preceding Ramadan. The logic is that anticipation of the holy month might have induced waqf founding. But the Shaban-effect, too, is negligible.

²⁴ Price uncertainty is computed from price indices used in Kuran and Rubin (2018). For each year, our measure of price uncertainty is the coefficient of variation of the price index for a ten-year window surrounding the year.

are included in specification 8, because founders may have had locational preferences regarding the public goods they financed. In logs, they are distance to Topkapı Palace (seat of political power, located near wealthy neighborhoods), the closest port (where wealthy merchants would have benefited disproportionately from services), the closest non-Muslim worship place (whose neighborhood would ordinarily be heavily non-Muslim, and thus disfavored insofar as sectarian discrimination was at play), and the Grand Bazaar (during most of our period, the world's largest indoor shopping mall and thus a center of wealth). The locational controls all turn out insignificant, and key results survive. A controversy in scholarship on public goods concerns the relationship between ethnic fractionalization and the provision of public goods; the literature is inconclusive (Alesina, Baqir, and Easterly 1999, Wimmer 2016). We lack information on the ethnic or sectarian fractionalization of Istanbul's neighborhoods, though one of our geographic controls, the closest non-Muslim workshop place, proxies for the mechanisms whose strength the literature debates. What can be measures through our data is status fractionalization by neighborhood. Might it influence where waqfs get founded? To find out, we add to the independent variables of the last specification a "status fractionalization index." This index represents the probability, for each neighborhood with at least ten waqfs, that a randomly selected pair of waqf founders belong to different status groups. It, too, turns out insignificant.

Analogous regressions for classic and cash waqfs separately are shown in Appendix B. Because we are insufficiently powered, some coefficients lose statistical significance but their signs are in line their counterparts based on the full data set.

Table 2
Effects of social vulnerability on making a secular public service a primary waqf function, 1457-1923

| VARIABLES | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|--------------------|-------------------|
| Female | -0.08*** (0.01) | | -0.07*** (0.01) | -0.07*** (0.01) | -0.05** (0.02) | -0.06** (0.02) | -0.05*** (0.02) | -0.04** (0.02) |
| Convert | | -0.04*** (0.01) | -0.03** (0.01) | -0.01 (0.02) | -0.01 (0.02) | -0.03* (0.02) | -0.01 (0.02) | -0.01 (0.02) |
| High elite | | | | | 0.07*** (0.02) | 0.08*** (0.02) | 0.06*** (0.02) | 0.07*** (0.03) |
| War year | | | | | -0.00 (0.02) | -0.02 (0.02) | -0.00 (0.02) | -0.00 (0.02) |
| Revolt year | | | | | -0.01 (0.04) | 0.02 (0.04) | -0.00 (0.04) | 0.09 (0.07) |
| Ramadan founding | | | | | 0.00 (0.03) | 0.01 (0.03) | 0.00 (0.03) | 0.04 (0.03) |
| Price variability | | | | | | | 0.01 (0.01) | -0.00 (0.05) |
| Status fractionalization | | | | | | | | 0.07 (0.14) |
| Intercept | 0.15*** (0.01) | 0.13*** (0.01) | 0.16*** (0.01) | 0.16** (0.07) | 0.12* (0.07) | 0.12* (0.07) | 0.12* (0.07) | -0.11 (0.21) |
| Observations | 1986 | 1986 | 1986 | 1954 | 1662 | 1662 | 1644 | 933 |
| Adjusted R ² | 0.014 | 0.004 | 0.016 | 0.048 | 0.054 | 0.026 | 0.055 | 0.033 |
| Period fixed-effects | No | No | No | Yes | Yes | No | Yes | Yes |
| Court fixed-effects | No | No | No | Yes | Yes | No | Yes | Yes |
| Geographic controls | No | No | No | No | No | No | No | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Social status and waqf functions

Our descriptive statistics revealed substantial differences in waqf-founding practices. To verify whether patterns hold up under statistical controls, we estimate OLS specifications of the form

$$y_{ijt} = \alpha \text{status}_{ijt} + \beta \mathbf{X}_{ijt} + \psi \mathbf{Z}_{ijt} + \gamma_j + \theta_t + \epsilon_{ijt}, \quad (2)$$

where status_{ijt} is the social status of waqf i registered in court j at time t . Although Fig. 8 distinguishes between nine status categories, for this purpose we aggregate male and female high-elites into a single “high elite” category and the four male elite groups below the top into a composite “male low-elite” category. The independent variable status_{ijt} thus assumes one of five alternatives: high elite, male low-elite, female low-elite, male commoner, and female commoner. The last category, female commoner, serves as the baseline in Table 3, which estimates, through equation (2), how social status affects the waqf’s use for self-support. The key finding is that high elite status but also gender is a predictor of waqf founding for self-support.

All five of our specifications show that waqf-founding high-elites are significantly less likely to include self-support among their designated functions. The same is true for male low elites and even male commoners. Female low-elites of Ottoman Istanbul appear to behave no differently than female commoners, the omitted alternative. Evidently, being female was a greater source of material insecurity than having commoner status. Hence, female low-elites were around 10 percent less likely than male commoners to make self-support a waqf function. The findings survive the addition of statistical controls, though “war year” weakens their significance (specifications 4 and 5).

Table 3
Effects of social status on making self-support a primary waqf function, 1457-1923

| VARIABLES | 1 | 2 | 3 | 4 | 5 |
|-------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|
| High elite | -0.15*** (0.05) | -0.11** (0.05) | -0.11** (0.05) | -0.16*** (0.05) | -0.09* (0.05) |
| Male low-elite | -0.10** (0.04) | -0.05 (0.05) | -0.05 (0.05) | -0.08 (0.05) | 0.00 (0.05) |
| Female low-elite | -0.00 (0.04) | 0.03 (0.04) | 0.02 (0.04) | -0.01 (0.05) | 0.04 (0.05) |
| Male commoner | -0.11** (0.05) | -0.12*** (0.05) | -0.12*** (0.05) | -0.09* (0.05) | -0.08* (0.05) |
| War year | | | | 0.13*** (0.02) | 0.10*** (0.02) |
| Revolt year | | | | -0.06 (0.06) | 0.02 (0.06) |
| Ramadan founding | | | | 0.05 (0.05) | 0.02 (0.05) |
| Price uncertainty | | | | 0.02 (0.02) | 0.02 (0.02) |
| Intercept | 0.62*** (0.04) | 0.59*** (0.05) | 0.66*** (0.08) | 0.58*** (0.04) | 0.56*** (0.08) |
| Observations | 1986 | 1954 | 1954 | 1644 | 1644 |
| Adjusted R ² | 0.011 | 0.027 | 0.026 | 0.029 | 0.054 |
| Period fixed-effects | No | Yes | Yes | No | Yes |
| Court fixed-effects | No | No | Yes | No | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Table 3A in Appendix C repeats the exercise for classic and cash waqfs separately. The added insight is that the results just discussed are driven primarily by classic waqfs.

Table 4 uses equation (2) to estimate how social status affects the waqf’s use for providing a secular public service. Regardless of control set, high elites are significantly more likely to include at least one secular public service among the primary functions of their waqfs. Male low-elites behave likewise. The deeds in the Istanbul court archive thus support the observation that using the waqf to provide social services was primarily an elite practice. Again, female low-elites differ in preferences from their male counterparts. Some of the most famous

charitable complexes were founded by high-ranking women of the Sultan's household. One is a public kitchen founded in Jerusalem by Hürrem (1505-1558), the Ukrainian-born wife of Süleyman the Magnificent and better known in the West as Roxelana; Singer (2002) describes it in detail. Evidently, Hürrem's public kitchen is unrepresentative of waqfs endowed by female elites generally. As in Table 2, which focused on the effects of social vulnerability, war years do not alter probabilities of endowing secular public services.

Table 4
Effects of social status on making a secular public service a primary waqf function, 1457-1923

| VARIABLES | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| High elite | 0.15*** (0.03) | 0.12*** (0.03) | 0.12*** (0.03) | 0.11*** (0.03) | 0.15*** (0.03) | 0.11*** (0.03) | 0.09*** (0.03) |
| Male low-elite | 0.11*** (0.03) | 0.07** (0.03) | 0.07** (0.03) | 0.07** (0.03) | 0.11*** (0.03) | 0.07** (0.03) | 0.05 (0.03) |
| Female low-elite | 0.02 (0.03) | 0.00 (0.03) | 0.00 (0.03) | -0.01 (0.03) | 0.02 (0.03) | -0.01 (0.03) | -0.00 (0.03) |
| Male commoner | 0.03 (0.03) | 0.03 (0.03) | 0.03 (0.03) | 0.02 (0.03) | 0.03 (0.03) | 0.02 (0.03) | 0.03 (0.03) |
| War year | | | | -0.00 (0.02) | -0.02 (0.02) | -0.00 (0.02) | 0.00 (0.02) |
| Revolt year | | | | -0.01 (0.04) | 0.01 (0.04) | -0.01 (0.04) | 0.05 (0.06) |
| Ramadan founding | | | | 0.01 (0.03) | -0.01 (0.03) | 0.01 (0.03) | 0.03 (0.03) |
| Price variability | | | | 0.01 (0.01) | 0.01 (0.01) | 0.01 (0.01) | 0.02 (0.04) |
| Intercept | 0.04 (0.02) | 0.03 (0.03) | 0.06 (0.05) | 0.07 (0.05) | 0.05* (0.03) | 0.07 (0.05) | -0.11 (0.17) |
| Observations | 1986 | 1954 | 1954 | 1644 | 1644 | 1644 | 1093 |
| Adjusted R ² | 0.030 | 0.055 | 0.054 | 0.056 | 0.029 | 0.056 | 0.051 |
| Period fixed-effects | No | Yes | Yes | Yes | No | Yes | Yes |
| Court fixed-effects | No | No | Yes | Yes | No | Yes | Yes |
| Geographic controls | No | No | No | No | No | No | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Table 4B in Appendix D provides the same estimation separately for classic and cash waqfs. Though the signs of the key coefficients of interest stay the same, a few lose significance, doubtless because splitting the sample reduces the statistical power of the data.

8. Worldly and Otherworldly Benefits to Founders

The regressions presented thus far show that status groups differed in why they founded a waqf. Whereas women endowed property primarily for financial security, high elites of both genders and males generally were more likely to establish a waqf to provide secular public goods. The

contrast reflects differences in perceived material security. As in other pre-modern societies, males controlled substantially more wealth directly. One reason is that they worked for pay whereas women generally did not. Another source of the gender gap in wealth is that under Islamic law men inherited twice as much as equivalent females (sons twice as much as daughters, brothers twice as much as sisters, and so on). Still another source of the gap is that men had more mobility than women, who could not travel without a male guardian. Finally, the courts considered a man's words as more credible than those of women. All such factors made women likelier than men to endow waqfs for self-support, and relatively less likely to endow secular public goods.

Perceptions of temporal material security would not necessarily match those of perceived security in the hereafter. Consider a wealthy and powerful Palace official who owes his worldly successes to corruption, ruthlessness, hypocrisy, and treachery. He could fear that divine retribution awaits him after death; and, in accordance with religious teachings, he might think that his sins can be extirpated through initiatives pleasing to God. One extirpation vehicle was to endow public services, secular or religious. Muslims learned that God looked favorably on both types of philanthropy, so for any particular status group inclinations to found them should have been similar. Another vehicle for extirpating sins, it was believed, was to have prayers read for one's soul. By this logic, endowing prayer recitations for one's soul would reveal insecurity about one's afterlife.

Insofar as status groups differed systematically in otherworldly expectations, choices regarding self-serving religious services would have differed. All else equal, a person confident of going to Heaven would have less reason to endow funds for self-serving Quran recitations than one with doubts. Endowing Quran recitations for one's soul constituted, one might say, a form of otherworldly self-support.

Table 5 contains four estimations of equation (2), each with the dependent variable y_{ijt} restricted to the presence of a specific primary function. The first two are designed to test whether intergroup differences in the probability to fund self-support carry over to investments designed to benefit the founder in the afterworld. They reveal that gender- and status-based differences with respect to temporal self-support (specification 1) are absent with respect to otherworldly self-support (specification 2). Females are significantly more likely than males, and high elites are significantly less likely than males in general, to use the waqf for worldly material

security. With respect to the hereafter, though, the behaviors of these groups are statistically identical. High elites are just as likely as other groups to assign funds for self-serving Quran recitations.²⁵ Apparently, temporal wealth and power did not translate into security in the hereafter.

Table 5
Self-serving primary endowments for this world and the afterlife, 1457-1923

| INDEPENDENT VARIABLES | DEPENDENT VARIABLE | | | |
|--------------------------|-------------------------------|------------------------------------|------------------------------|--------------------------------|
| | 1 Temporal self-support | 2 Quran reading for own soul | 3 Secular public goods | 4 Religious public goods |
| Female | 0.06** (0.03) | 0.01 (0.02) | -0.05*** (0.02) | -0.06*** (0.02) |
| High elite | -0.06* (0.04) | 0.04 (0.02) | 0.06*** (0.02) | 0.08*** (0.02) |
| Convert | 0.03 (0.03) | 0.02 (0.02) | -0.01 (0.02) | -0.00 (0.02) |
| War year | 0.10*** (0.02) | -0.00 (0.02) | -0.00 (0.02) | -0.01 (0.02) |
| Revolt year | 0.02 (0.06) | -0.09** (0.04) | -0.00 (0.04) | 0.02 (0.00) |
| Ramadan founding | 0.01 (0.05) | -0.02 (0.03) | 0.00 (0.03) | 0.04 (0.05) |
| Price variability | 0.02 (0.02) | -0.02 (0.01) | 0.01 (0.01) | -0.00 (0.02) |
| Intercept | 0.53*** (0.07) | 0.19*** (0.05) | 0.12*** (0.04) | 0.21*** (0.05) |
| Observations | 1644 | 1644 | 1644 | 1644 |
| Adjusted R ² | 0.052 | 0.102 | 0.055 | 0.096 |
| Period fixed-effects | Yes | Yes | Yes | Yes |
| Court fixed-effects | Yes | Yes | Yes | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

If funding religious public goods was believed to be more pleasing to God than endowing secular public goods, the foregoing logic would carry over to public goods, too. But the female contrast with high elites observed for secular public goods (specification 3) is present also for religious public goods (specification 4). So the afterlife is not an equalizer as regards the provision of public goods across social groups. Wealthy and powerful people are more likely, and females are less likely, to endow any public service, secular or religious.

²⁵ Of the statistical controls, only one offers new information. Endowing Quran reading falls in revolt years.

9. Deed Contingencies

Up to this point, our focus has been on the primary functions of Istanbul's regular waqfs. Since waqfs were supposed to operate in perpetuity, the typical deed made provisions for contingencies that would invalidate primary stipulations. The death of a named beneficiary was the most common event requiring a contingency clause; another was the end of a family line, almost always that of the founder. By convention, the "poor of Medina" constituted the default beneficiary. That default covered deeds without contingent functions (5.7% of the sample). It also covered every other deed, for even a long sequence of contingent functions could become impossible to fulfil, for reasons unimaginable at the founding.

Yet, most contingencies were entirely imaginable, if not also inevitable. Founders knew that they would die, as would all their living relatives and unborn descendants. It was imaginable, too, that an endowed building for public use—a mosque, a school, a public kitchen—would become unusable and that the waqf's revenue would prove insufficient for restoring the stipulated service. As one might expect, founders routinely stipulated contingent functions for designated primary public services. Some contingent functions kept resources within the same functional category as the primary functions they replaced; for instance, they replaced one religious service with another. But contingent functions triggered by a death could well shift resources across categories. A founder's death made it impossible to use the waqf's revenue for his or her needs. Inevitably, it shifted resources from self-support to some other category of functions.

General patterns may be explored through OLS regressions of the form

$$\text{ContingentFunction}_{ijt} = \beta \text{PrimaryFunction}_{ijt} + \gamma_j + \theta_t + \epsilon_{ijt}, \quad (3)$$

where **PrimaryFunction**_{ijt} is the vector of primary functions discussed thus far, except that Quran reading is now split according to whether the beneficiary is the founder or a non-founder; **ContingentFunction**_{ijt}, the dependent variable, is a vector of seven function categories plus "no contingency," the absence of any explicit contingent function. The remaining variables are familiar. The motivation for disaggregating the Quran-reading function is to gauge the commonness of funds endowed for the founder's temporal support getting shifted, at his or her death, to the founder's salvation. The contingent function vector is missing self-support because it applies to only three cases in our data set (0.2%). When a founder included himself or herself

as a temporal beneficiary, very rarely was the support conditional on the realization of some event.²⁶

In Table 6, what jumps out is the huge coefficient at the top of specification 2: when family support appears as a contingent function, the primary function that it replaces is generally support for the founder. Put simply, when a waqf is established as a wealth shelter for the founder, usually it includes a provision for the sheltered wealth to pass onto the founder's heirs. The entire self-support row indicates that Quran reading for either the founder's soul or that of others were also common contingent destinations for resources assigned to the founder's benefit during his or her lifetime. By contrast, public services were uncommon destinations for sheltered resources. According to specifications 5-8, primary self-support is a weak predictor of contingent public services. In specification 2, the positive coefficient for primary family support is unsurprising. When a deed stipulates temporal benefits for a founder's relatives, those temporal benefits typically pass on to the relatives' heirs. Specifications 3-5 point to substantial numbers of temporal deeds where temporal benefits for relatives converted, upon their deaths to Quran recitations or other religious services.

The significant and sizeable negative coefficients merit comment. In specification 1, the negative self-support coefficient indicates that wealth shelters for the founder rarely lacked stipulations for how resources would be spent after the founder's passing. A negative coefficient does not necessarily imply the withdrawal of a service at the realization of some contingency. In many cases, it means simply that no explicit contingency was attached to the primary service. Consider the last row, for primary secular services. A water fountain was typically endowed forever, and the default condition was expected to take care of any situation that made it impossible to keep the fountain operational. The positive coefficients for primary secular public services in specifications 7 and 8 indicate that waqfs established for philanthropic purposes were likely to stipulate a new public service to the extent that the primary public service could no longer be delivered. Just as waqfs established as wealth shelters included provisions to make them keep that status indefinitely, so philanthropic waqfs were meant to remain philanthropic.

²⁶ In these rare cases, a relative or other close person is among the primary beneficiaries. If that person dies, the revenue goes instead to the founder.

Table 6
Roles of waqf contingencies, 1457-1923

| | CONTINGENT FUNCTIONS | | | | | | | |
|-------------------------------|----------------------|-------------------|---------------------------|-------------------------------|--------------------------|-------------------|-------------------|-------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PRIMARY FUNCTIONS | No contingency | Family support | Quran reading for founder | Quran reading for non-founder | Other religious services | Schooling | Poor support | Secular public services |
| Self support | -0.13*** (0.01) | 0.58*** (0.02) | 0.09*** (0.02) | 0.11*** (0.02) | 0.02 (0.01) | 0.02*** (0.01) | -0.03* (0.02) | 0.02*** (0.01) |
| Family support | -0.07*** (0.01) | 0.08*** (0.02) | 0.08*** (0.02) | 0.10*** (0.02) | 0.05*** (0.01) | 0.00 (0.01) | -0.01 (0.02) | 0.02* (0.01) |
| Quran reading for founder | 0.04** (0.02) | -0.03 (0.03) | -0.05** (0.02) | -0.03 (0.03) | -0.00 (0.02) | 0.01 (0.01) | 0.12** (0.03) | -0.00 (0.01) |
| Quran reading for non-founder | 0.03* (0.01) | -0.02 (0.02) | -0.07*** (0.02) | -0.09*** (0.02) | -0.02 (0.01) | -0.01 (0.01) | -0.04 (0.02) | -0.01 (0.01) |
| Other religious services | -0.01 (0.01) | -0.00 (0.03) | -0.04* (0.02) | -0.06*** (0.02) | -0.02 (0.02) | 0.02* (0.01) | 0.03 (0.02) | -0.01 (0.01) |
| Schooling | 0.02 (0.02) | 0.08** (0.03) | -0.07*** (0.03) | -0.08*** (0.03) | -0.03 (0.02) | 0.02 (0.01) | -0.08** (0.03) | -0.02 (0.01) |
| Poor support | 0.03 (0.02) | -0.00 (0.04) | -0.03 (0.03) | -0.03 (0.03) | -0.03 (0.02) | 0.00 (0.01) | -0.05 (0.03) | -0.00 (0.01) |
| Secular public services | -0.00 (0.02) | 0.00 (0.03) | -0.06** (0.03) | -0.06** (0.03) | -0.04** (0.02) | 0.01 (0.01) | 0.08*** (0.03) | 0.03*** (0.01) |
| Observations | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 | 1954 |
| Adjusted R ² | 0.093 | 0.346 | 0.064 | 0.114 | 0.017 | 0.014 | 0.139 | 0.006 |
| Period fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Court fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

10. Conclusions and Further Implications

In pulling together the threads of a long argument, it is worth remembering that the Islamic waqf, the subject of this study, differs fundamentally from its modern namesake, which is a charitable corporation governed by a board of trustees. Where they exist, modern waqfs supply a plethora of public goods, including schools, hospitals, research institutes, environmental protection, historical preservation, disaster relief, and social welfare. In Ottoman Istanbul, most of the Islamic waqfs supplying major public goods were endowed by the empire's highest elites, often the sultan, members of his family, and his highest officials. Services that in pre-modern Western Europe fell substantially to local governments and churches organized as a corporation were supplied through massive charitable complexes financed by state-sponsored Islamic waqfs, or simply state waqfs. Very few regular Islamic waqfs—small waqfs established mostly by people outside the sultan's close circle—provided public goods analogous in significance. Lesser high-

elites in Ottoman Istanbul, males more readily than females, contributed to the financing of small-scale public goods. Most commonly, they financed schools, mosque supplies, and water fountains.

No systematic research exists on how state waqfs affected material inequalities. Some of their services, such as mosques and urban water lines, benefited people from all walks of life. But other services, including hospitals and even public kitchens, served primarily elites and the well-connected; in favoring the privileged, they perpetuated existing inequalities. Among this paper's findings is that regular Islamic waqfs also perpetuated existing inequalities. The evidence from Ottoman Istanbul indicates that their main functions excluded improving the material conditions of the poor. Even endowments targeted at afterlives benefited the privileged very disproportionately. The main beneficiaries of endowed prayers were founders and their relatives. If any waqf financed prayers for the salvation of the poor, it would be a rare exception; not one such waqf exists in our sample of 1986 deeds spanning the period 1457-1923. Waqf-financed prayers for the dead were designed to extend worldly inequalities into the hereafter.

Help for the poor was far more common as a contingent service than as a primary service. The deed of a regular waqf typically mentions the poor generally, or the members of a specific impoverished constituency, as contingent beneficiaries, usually recipients if and when the founder's family line expired. Besides, "the poor of Medina" were considered ultimate beneficiaries in the event the waqf's stipulated functions could no longer be met. But such contingencies were understood to be unlikely. Less than one out of 300 regular waqfs in Ottoman Istanbul was exclusively for the poor; and less than 6 percent included the poor as one of multiple primary beneficiaries. Such magnitudes should lay to rest the common belief that the Islamic waqf was an instrument of charity. As with state waqfs, the charitable functions of regular waqfs have been exaggerated.

In Ottoman Istanbul, the main motive for founding a regular waqf was wealth sheltering. More than three-quarters of all waqf deeds name the founder's self and/or family among the primary beneficiaries. Wealth shelters provided further benefits to the founder's relatives over time. Revenue reserved for the founder was generally meant to pass on, across centuries, to his or her descendants. By no means did these deed-recorded benefits for the founder's extended family exhaust the returns to founding a waqf. All waqf founders earned prestige and respect, which produced material returns themselves. Those that financed one or more public goods also

earned the right to be left alone by the Sultan insofar as the services contributed to his strategic objectives. Philanthropic founders benefited disproportionately from certain public goods, most often by locating them in places convenient to themselves. On all these grounds, the regular Islamic waqf is best viewed as an institution whose main role was to preserve the distributional status quo by facilitating the preservation of prevailing material inequalities. that enabled wealth holders to meet several of their own needs than as one for facilitating charity.

Drawing mostly on scripture, influential scholars have held that Islam stands out among religions in its emphasis on charity. The waqf is central to historical narratives focused on redistribution. There do not yet exist any cross-religious historical comparisons of charity and philanthropy that draw on analogous data sets. What this paper suggests is that, contrary to popular narratives, societies governed under Islamic law were not particularly charitable. Though being generous has always been part of Islamic teachings, and though they counsel the wealthy to be responsive toward social needs, as a matter of practice Islam's main pre-modern instrument of private charity does not appear to have been particularly beneficial to the poor. Given that archives contain records from tens of thousands of regular waqfs, counter-examples to the general pattern are easy to find. But generalizing on the basis of cherry-picked examples can lead to profoundly misleading interpretations.

Ramadan is a time of the year when religiosity rises among practising Muslims. Individuals become more generous during Ramadan, as do legitimacy-seeking rulers. Yet, in Ottoman Istanbul, the frequency of waqf foundings did not change in Ramadan. This finding undermines the view that establishing a waqf was an act of charity. But it accords with overwhelming evidence that regular waqfs were formed mainly to shelter wealth for founders and their descendants. If the major motive for founding a regular waqf was material security for oneself rather than sharing with others, a founding date in Ramadan would not have held any special significance.

Nothing here implies that waqf founders were irreligious. On the contrary, our data contain substantial evidence of religiosity. About one-third of all regular waqf deeds had one or more explicitly religious primary functions, and an additional 8% financed schooling, which was always infused with religion. Also telling is that founders set aside resources to expiate their own sins and those of their relatives through periodic prayer recitations. In addition to providing material security, regular waqfs thus provided (or were thought to provide) security in the

hereafter. Because waqf founders were people of means, the practice of endowing prayer recitations effectively extended worldly inequalities into the afterlife.

That women founded a substantial share of waqfs has been a major theme in waqf studies. But the emphasis has been on huge charitable complexes founded by female relatives of rulers. As with state waqfs, women founded a substantial share of regular waqfs. Except for top-ranked women, though, women were under-represented among the founders of waqfs supplying public goods. They were disproportionately likely to found wealth shelters. The reason, we propose here, is that they were socially, legally, and economically handicapped relative to men. Revealingly, the waqf-founding choices of another vulnerable group, converts to Islam, matched those of women. They were relatively likely to shelter wealth and relatively unlikely to finance public services.

The regular waqf that has been the focus of the paper's empirical analysis had two variants: the classic waqf, whose endowment consisted exclusively of real estate, and the cash waqf. The founding of classic waqfs peaked around the 1650s and steadily declined thereafter. Cash waqfs rose in popularity to about 1800 and then went into decline. Since classic waqfs were more conducive to wealth sheltering, their trajectory suggests that, at least people outside the Sultan's high administration, property rights strengthened after the mid-seventeenth century. We offer this as a hypothesis to be tested in further work through a broader array of historical data. As for the trajectory of cash waqfs, it shows a slow rise up to about 1800, after which new foundings fell. The trajectory was undoubtedly driven by a severe credit shortage, which was reflected in high real interest rates. Unlike classic waqfs, cash waqfs were founded as instruments of lending for profit. The decline in their popularity reflected the emergence of new financial instruments, both through the evolution of local institutions and through the transplant of modern financial institutions, most importantly, banks.

Istanbul's status as the largest Muslim-governed city of its time and its economic interactions with Europe must have affected the timing of the trends reported. Comparable research on other cities is needed to show where Istanbul was ahead of the broader region and where it moved in unison. On other findings of the paper, those concerning the roles of gender and social status on the propensity to shelter wealth, finance public goods, and invest in the hereafter, there is no obvious reason to believe that Ottoman Istanbul's residents were unusual or unique. The patterns reported for Istanbul are probably representative of Ottoman Turkey, the

Ottoman Empire, the broader Eastern Mediterranean, and even the Muslim world. If Istanbul's waqf founders were more somehow more selfish or less charitable than the waqf founders of other places governed under Islamic law, that remains to be demonstrated empirically, using comparably representative archival samples.

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Appendix A

Table 1A
Effects of social vulnerability on making self-support a primary function of classic waqfs
and cash waqfs, 1457-1923

| VARIABLES | CLASSIC WAQF | | | | CASH WAQF | | | |
|-------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Female | 0.13*** (0.03) | 0.13*** (0.03) | 0.11*** (0.03) | 0.10*** (0.03) | -0.04 (0.04) | -0.02 (0.04) | -0.08 (0.05) | -0.08 (0.06) |
| Convert | 0.09*** (0.03) | 0.09*** (0.03) | 0.07** (0.03) | 0.06* (0.03) | 0.03 (0.05) | 0.02 (0.05) | 0.01 (0.05) | -0.01 (0.05) |
| High elite | | | -0.04 (0.04) | -0.03 (0.04) | | | -0.08 (0.05) | -0.08 (0.05) |
| War year | | | 0.13*** (0.03) | 0.13*** (0.03) | | | 0.09** (0.04) | 0.05 (0.04) |
| Revolt year | | | -0.00 (0.07) | -0.01 (0.08) | | | -0.12 (0.11) | -0.03 (0.11) |
| Ramadan founding | | | -0.01 (0.05) | -0.01 (0.05) | | | 0.13 (0.09) | 0.06 (0.09) |
| Price variability | | | 0.01 (0.03) | 0.01 (0.03) | | | 0.01 (0.03) | 0.01 (0.03) |
| Intercept | 0.51*** (0.02) | 0.73*** (0.09) | 0.53*** (0.03) | 0.66*** (0.10) | 0.43*** (0.03) | 0.43*** (0.09) | 0.43*** (0.04) | 0.44*** (0.10) |
| Observations | 1374 | 1353 | 1101 | 1101 | 612 | 601 | 543 | 543 |
| Adjusted R ² | 0.027 | 0.036 | 0.039 | 0.044 | 0.001 | 0.038 | 0.010 | 0.050 |
| Period fixed-effects | No | Yes | No | Yes | No | Yes | No | Yes |
| Court fixed-effects | No | Yes | No | Yes | No | Yes | Nos | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Appendix B

Table 2A
Effects of social vulnerability on making social public services a primary function of classic waqfs and cash waqfs, 1457-1923

| VARIABLES | CLASSIC WAQF | | | | CASH WAQF | | | |
|--------------------------|--------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|-----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Female | -0.05*** (0.02) | | -0.02* (0.01) | -0.03* (0.02) | -0.10** (0.04) | | -0.09** (0.04) | -0.01 (0.08) |
| Convert | | -0.03** (0.01) | -0.01 (0.01) | -0.00 (0.02) | | -0.06 (0.04) | -0.03 (0.04) | -0.03 (0.07) |
| High elite | | | 0.04** (0.02) | 0.03 (0.02) | | | 0.06 (0.05) | 0.08 (0.08) |
| War year | | | 0.01 (0.01) | 0.01 (0.02) | | | -0.03 (0.04) | -0.03 (0.06) |
| Revolt year | | | 0.04 (0.04) | 0.07 (0.05) | | | -0.01 (0.10) | 0.46 (0.48) |
| Ramadan founding | | | 0.03 (0.02) | 0.05* (0.03) | | | -0.08 (0.08) | -0.00 (0.10) |
| Price variability | | | 0.01 (0.02) | 0.01 (0.04) | | | 0.02 (0.02) | -0.15 (0.21) |
| Social fractionalization | | | | 0.05 (0.12) | | | | 0.59 (0.46) |
| Intercept | 0.06*** (0.01) | 0.06*** (0.01) | 0.00 (0.04) | -0.16 (0.18) | 0.25*** (0.02) | 0.24*** (0.02) | 0.26*** (0.08) | 0.05 (0.72) |
| Observations | 1374 | 1374 | 1101 | 753 | 612 | 612 | 543 | 180 |
| Adjusted R ² | 0.009 | 0.002 | 0.054 | 0.038 | 0.011 | 0.003 | 0.011 | 0.032 |
| Period fixed-effects | No | No | Yes | Yes | No | No | Yes | Yes |
| Court fixed-effects | No | No | Yes | Yes | No | No | Yes | Yes |
| Geographic controls | No | No | No | Yes | No | No | No | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Appendix C

Table 3A
Effects of social status on making self-support a primary function of classic waqfs and cash waqfs, 1457-1923

| VARIABLES | CLASSIC WAQF | | | | CASH WAQF | | | |
|-------------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| High elite | -0.12** (0.05) | -0.11** (0.05) | -0.11** (0.05) | -0.08 (0.06) | -0.02 (0.11) | -0.02 (0.11) | -0.01 (0.11) | 0.01 (0.11) |
| Male low-elite | -0.10* (0.05) | -0.08 (0.05) | -0.08 (0.05) | -0.03 (0.05) | 0.04 (0.11) | 0.06 (0.11) | 0.07 (0.11) | 0.11 (0.11) |
| Female low-elite | 0.04 (0.05) | 0.05 (0.05) | 0.04 (0.05) | 0.06 (0.05) | -0.01 (0.11) | 0.03 (0.11) | 0.02 (0.11) | 0.02 (0.11) |
| Male commoner | -0.16*** (0.05) | -0.15*** (0.05) | -0.15*** (0.05) | -0.10* (0.05) | 0.13 (0.11) | 0.06 (0.11) | 0.07 (0.11) | 0.06 (0.12) |
| War year | | | | 0.13*** (0.03) | | | | 0.05 (0.04) |
| Revolt year | | | | -0.02 (0.08) | | | | -0.03 (0.11) |
| Ramadan founding | | | | -0.01 (0.05) | | | | 0.06 (0.09) |
| Price variability | | | | 0.01 (0.03) | | | | 0.01 (0.03) |
| Intercept | 0.66*** (0.04) | 0.73*** (0.05) | 0.85*** (0.10) | 0.72*** (0.10) | 0.40*** (0.10) | 0.28*** (0.11) | 0.40*** (0.13) | 0.34** (0.14) |
| Observations | 1374 | 1353 | 1353 | 1101 | 612 | 601 | 601 | 543 |
| Adjusted R ² | 0.024 | 0.031 | 0.032 | 0.044 | 0.003 | 0.034 | 0.039 | 0.050 |
| Period fixed-effects | No | Yes | Yes | Yes | No | Yes | Yes | Yes |
| Court fixed-effects | No | No | Yes | Yes | No | No | Yes | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Appendix D

Table 4A

Effects of social status on making secular social services a primary function of classic waqfs and cash waqfs, 1500-1900

| VARIABLES | CLASSIC WAQF | | | | CASH WAQF | | | |
|-------------------------|-------------------|-------------------|-------------------|------------------|-----------------|-----------------|------------------|-----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| High elite | 0.10*** (0.02) | 0.08*** (0.02) | 0.09*** (0.03) | 0.06** (0.03) | 0.13 (0.09) | 0.11 (0.09) | 0.11 (0.10) | 0.11 (0.10) |
| Male low-elite | 0.06** (0.02) | 0.03 (0.02) | 0.05** (0.02) | 0.02 (0.03) | 0.11 (0.09) | 0.10 (0.09) | 0.10 (0.10) | 0.09 (0.10) |
| Female low-elite | 0.01 (0.02) | -0.00 (0.02) | 0.01 (0.02) | -0.01 (0.02) | -0.01 (0.09) | -0.03 (0.09) | -0.04 (0.10) | -0.04 (0.10) |
| Male commoner | 0.03 (0.02) | 0.03 (0.02) | 0.03 (0.03) | 0.02 (0.03) | -0.02 (0.09) | -0.03 (0.10) | -0.04 (0.10) | -0.04 (0.10) |
| War year | | | -0.00 (0.01) | 0.01 (0.01) | | | -0.02 (0.04) | -0.02 (0.04) |
| Revolt year | | | 0.04 (0.04) | 0.04 (0.04) | | | -0.02 (0.10) | -0.00 (0.10) |
| Ramadan founding | | | 0.02 (0.03) | 0.03 (0.02) | | | -0.05 (0.08) | -0.06 (0.08) |
| Price variability | | | 0.01 (0.02) | 0.01 (0.02) | | | 0.01 (0.02) | 0.01 (0.02) |
| Intercept | 0.01 (0.02) | -0.01 (0.05) | 0.02 (0.02) | -0.02 (0.05) | 0.16* (0.08) | 0.18 (0.11) | 0.20** (0.09) | 0.20 (0.12) |
| Observations | 1374 | 1353 | 1101 | 1101 | 612 | 601 | 543 | 543 |
| Adjusted R ² | 0.018 | 0.047 | 0.014 | 0.054 | 0.020 | 0.018 | 0.018 | 0.018 |
| Period fixed-effects | No | Yes | No | Yes | No | Yes | No | Yes |
| Court fixed-effects | No | Yes | No | Yes | No | Yes | No | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Appendix E

Table 5A
Self-serving classic and cash endowments for this world and the afterlife, 1457-1923

| INDEPENDENT VARIABLES | DEPENDENT VARIABLES | | | | | | | |
|--------------------------|--------------------------|-------------------|-------------------------------|---------------------------------|--------------------------|-------------------|-------------------------------|---------------------------------|
| | CLASSIC WAQF | | | | CASH WAQF | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Temporal self-support | Quran reading | Secular public services | Religious public services | Temporal self-support | Quran reading | Secular public services | Religious public services |
| Female | 0.10*** (0.03) | -0.02 (0.01) | -0.02* (0.01) | -0.05*** (0.02) | -0.07 (0.05) | 0.13*** (0.05) | -0.09** (0.04) | -0.01 (0.05) |
| High elite | -0.03 (0.04) | 0.05*** (0.02) | 0.04** (0.02) | 0.04* (0.02) | -0.08 (0.05) | 0.01 (0.05) | 0.06 (0.05) | 0.08 (0.05) |
| Convert | 0.06* (0.03) | -0.00 (0.01) | -0.01 (0.01) | -0.02 (0.02) | -0.01 (0.05) | 0.02 (0.04) | -0.03 (0.04) | 0.04 (0.05) |
| Ramadan founding | -0.01 (0.05) | -0.02 (0.03) | 0.03 (0.02) | 0.01 (0.03) | 0.06 (0.09) | -0.01 (0.08) | -0.08 (0.08) | -0.05 (0.09) |
| War year | 0.13*** (0.03) | 0.01 (0.01) | 0.01 (0.01) | -0.01 (0.02) | 0.05 (0.04) | -0.03 (0.04) | -0.03 (0.04) | -0.03 (0.04) |
| Revolt year | -0.01 (0.08) | -0.01 (0.04) | 0.04 (0.04) | 0.03 (0.04) | -0.03 (0.11) | -0.10 (0.10) | -0.01 (0.10) | 0.09 (0.11) |
| Price variability | 0.01 (0.03) | -0.01 (0.02) | 0.01 (0.02) | -0.04** (0.02) | 0.01 (0.03) | -0.02 (0.02) | 0.02 (0.02) | 0.02 (0.03) |
| Intercept | 0.66*** (0.10) | 0.06 (0.05) | 0.00 (0.04) | 0.14** (0.05) | 0.44*** (0.10) | 0.29*** (0.09) | 0.26*** (0.08) | 0.28*** (0.09) |
| Observations | 1101 | 1101 | 1101 | 1101 | 543 | 543 | 543 | 543 |
| Adjusted R ² | 0.044 | 0.061 | 0.054 | 0.096 | 0.050 | 0.075 | 0.011 | 0.017 |
| Period fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Court fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Appendix F

Table 6A
Roles of classic waqf contingencies, 1457-1923

| | CONTINGENT FUNCTIONS | | | | | | | |
|-------------------------------|----------------------|-------------------|---------------------------|-------------------------------|--------------------------|------------------|--------------------|-------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PRIMARY FUNCTIONS | contingency No | Family support | Quran reading for founder | Quran reading for non-founder | Other religious services | Schooling | Poor support | Secular public services |
| Self-support | -0.14*** (0.01) | 0.57*** (0.02) | 0.07*** (0.02) | 0.13*** (0.02) | -0.01 (0.01) | 0.02** (0.01) | 0.02 (0.02) | 0.02** (0.01) |
| Family support | -0.10*** (0.02) | 0.09*** (0.03) | 0.11*** (0.03) | 0.14*** (0.03) | 0.05** (0.02) | 0.00 (0.01) | 0.05* (0.03) | 0.03** (0.01) |
| Quran reading for founder | 0.02 (0.03) | 0.01 (0.05) | -0.02 (0.05) | -0.03 (0.05) | 0.00 (0.03) | 0.00 (0.01) | 0.04 (0.04) | -0.02 (0.02) |
| Quran reading for non-founder | 0.03* (0.02) | -0.03 (0.04) | -0.10*** (0.03) | -0.14*** (0.03) | -0.06*** (0.02) | -0.01 (0.01) | 0.00 (0.03) | 0.00 (0.01) |
| Other religious services | 0.00 (0.02) | 0.03 (0.04) | -0.03 (0.03) | -0.07** (0.04) | -0.02 (0.02) | 0.01 (0.01) | 0.06* (0.03) | -0.01 (0.01) |
| Schooling | 0.03 (0.03) | 0.09* (0.05) | -0.09** (0.04) | -0.09* (0.05) | -0.04 (0.03) | 0.00 (0.01) | -0.16*** (0.04) | -0.02 (0.02) |
| Poor support | 0.07** (0.03) | -0.09 (0.06) | -0.07 (0.05) | -0.07 (0.05) | -0.00 (0.04) | 0.02 (0.02) | -0.03 (0.05) | 0.00 (0.02) |
| Secular public services | -0.00 (0.03) | 0.03 (0.05) | -0.05 (0.04) | -0.06 (0.05) | -0.04 (0.03) | -0.00 (0.01) | 0.08** (0.04) | 0.02 (0.02) |
| Observations | 1353 | 1353 | 1353 | 1353 | 1353 | 1353 | 1353 | 1353 |
| Adjusted R ² | 0.111 | 0.305 | 0.041 | 0.113 | 0.018 | 0.012 | 0.073 | 0.002 |
| Period fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Court fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.

Table 6B
Roles of cash waqf contingencies, 1457-1923

| | CONTINGENT FUNCTIONS | | | | | | | |
|-------------------------------|----------------------|-------------------|---------------------------|-------------------------------|--------------------------|-----------------|-------------------|-------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| PRIMARY FUNCTIONS | No contingency | Family support | Quran reading for founder | Quran reading for non-founder | Other religious services | Schooling | Poor support | Secular public services |
| Self-support | -0.10*** (0.02) | 0.59*** (0.03) | 0.13*** (0.02) | 0.09*** (0.02) | 0.07*** (0.02) | 0.03* (0.01) | -0.09** (0.03) | 0.03** (0.01) |
| Family support | -0.00 (0.03) | 0.05 (0.04) | 0.01 (0.03) | 0.03 (0.03) | 0.02 (0.02) | 0.01 (0.02) | -0.07 (0.04) | -0.00 (0.02) |
| Quran reading for founder | 0.04 (0.02) | -0.02 (0.03) | -0.06** (0.03) | -0.06** (0.03) | -0.01 (0.02) | 0.00 (0.02) | 0.15*** (0.04) | 0.01 (0.01) |
| Quran reading for non-founder | -0.01 (0.02) | 0.02 (0.03) | -0.04 (0.03) | -0.03 (0.03) | 0.02 (0.02) | -0.02 (0.02) | -0.06 (0.04) | -0.02 (0.01) |
| Other religious services | -0.03 (0.02) | -0.02 (0.03) | -0.05** (0.02) | -0.07*** (0.02) | -0.02 (0.02) | 0.01 (0.02) | 0.01 (0.04) | -0.01 (0.01) |
| Schooling | 0.00 (0.03) | 0.08* (0.04) | -0.07** (0.03) | -0.08** (0.03) | -0.02 (0.02) | 0.03 (0.02) | 0.01 (0.05) | -0.01 (0.02) |
| Poor support | -0.01 (0.03) | 0.08 (0.05) | 0.01 (0.04) | 0.00 (0.04) | -0.05* (0.03) | -0.02 (0.02) | -0.05 (0.05) | -0.01 (0.02) |
| Secular public services | -0.00 (0.02) | -0.00 (0.03) | -0.07*** (0.03) | -0.08*** (0.03) | -0.04** (0.02) | 0.02 (0.02) | 0.07* (0.04) | 0.04*** (0.01) |
| Observations | 601 | 601 | 601 | 601 | 601 | 601 | 601 | 601 |
| Adjusted R ² | 0.106 | 0.420 | 0.142 | 0.105 | 0.033 | 0.009 | 0.190 | 0.010 |
| Period fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Court fixed-effects | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Standard errors in parentheses.

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

Data: Aydın et al. (2015), Canatar (2004), and court registers listed in note 15.