

Secularity and Migration Aspirations in the Arab World

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Abstract

This study develops a new theoretical framework to explain how secularity influences migration aspirations in the Arab world. We argue that secular individuals incur significant psychological costs when living in highly religious societies. This value incongruence pushes them to seek out more secular environments, whereas strongly religious individuals face higher cultural costs of moving and thus prefer to stay. We derive testable hypotheses on how individual secularity and socio-political secularity act as push–pull factors for different communities and migration destinations. We then test these hypotheses using 2018–2019 Arab Barometer data from eleven MENA countries. We construct original indices for individual secularity and socio-political secularity via multiple correspondence analysis. Consistent with our theory, probit and instrumental-variable probit estimates show that secular individuals are significantly more likely to express intentions to emigrate – particularly to highly secular Western countries. Among Muslim majority populations, both individual and socio-political secularity increase the desire to migrate, whereas among Christian minorities only individual secularity has this effect. Moreover, secularity drives regular migration aspirations, with no measurable impact on irregular migration except in the case of religiously unaffiliated “nones,” who exhibit a heightened willingness to migrate by any means. These findings contribute to the migration literature by emphasizing the substantial, yet previously underexplored, influence of secular beliefs and practices on migratory behavior in the Arab context.

Keywords: Arab world, migration, religiosity, secularity

1 Introduction

Secularity refers to the historical condition in which religion is no longer perceived as the natural or necessary basis for organizing individual conduct in both public and private spheres (Taylor, 2007). Concurrently, political institutions emancipate themselves from religious norms through processes of cultural pluralization and functional differentiation (Casanova, 1994). Secularity thus encompasses two distinct but interrelated dimensions: the individual and the collective. At the individual level, it is characterized by the erosion of religious observance and belief, manifesting in reduced participation in ritual practices, declining adherence to doctrinal commitments, and increasing alignment with secular values and lifestyles (Voas and Chaves, 2016). At the societal level, it is reflected in the progressive retreat of religious symbols, discourses, and institutions from public spaces and political life (Bruce, 2011).

In contrast to Western societies, the Arab world continues to experience a strong religious influence. According to findings from the Arab Barometer survey conducted from October 2018 to July 2019 across twelve Arab countries, 77.32%^[1] of the Arab population declare praying at least once a day. Additionally, 78.46%^[2] of respondents believe that their country's legal framework should be, at least partially, based on religious tenets. In recent years, there has been a noticeable resurgence in religiosity among young Arabs (Azedi, 2025). Meanwhile, nearly a third of the Arab population aspires to leave their country, with approximately 10% willing to emigrate without the required papers.^[3] Therefore, when analyzing the determinants of migration within these predominantly non-secular societies, the role of religion emerges as a critical factor.

Historically, migration studies have mainly emphasized socio-economic factors like employment opportunities and wage disparities (Docquier et al., 2014), as well as political governance (Ariu et al., 2016), gender inequality (Ferrant and Tucio, 2015; Chort, 2014), the search for freedom (Ashby, 2010) and demographic trends such as youth and a higher edu-

1. Authors' calculations based on the Arab Barometer 2018-2019

2. Authors' calculations based on the Arab Barometer 2018-2019

3. Authors' calculations based on the Arab Barometer 2018-2019

cation level (Migali and Scipioni, 2019) as primary motivators for migration. Until recently, the religious dimension has been largely ignored in the literature.

Yet, since antiquity, religious concerns have been at the heart of human migration. Throughout history, individuals and communities have fled their homelands to escape oppression on the basis of their faith, from the expulsion of the Jews from Spain in 1492, following the Alhambra Decree that mandated conversion or exile, to the departure of French Huguenots after the revocation of the Edict of Nantes in 1685. More recently, the Rohingya, a Muslim minority in Myanmar, faced in 2017 targeted state violence and military operations that forced over 700,000 to seek refuge in Bangladesh (Faye, 2021). A comparable dynamic can be observed among Christian minorities in conflict-affected contexts such as Sudan, where ongoing persecution and insecurity have prompted many to migrate toward safer environments in search of the freedom to practice their religion openly (Picard, 2016).

Despite its historical centrality, the academic literature on the cultural determinants of migration remains remarkably scarce. A few empirical studies, however, have attempted to shed light on these dynamics. Belot and Ederveen (2012) notably demonstrate that cultural barriers between OECD countries - particularly those arising from differences in dominant Christian denominations - carry more explanatory power for migration flows than traditional socio-economic determinants. Other contributions focus on the role of individual religiosity and ideological orientation: for instance, Falco and Rotondi (2016) find that adherence to radical Islamic principles tends to reduce migration intentions, while Docquier et al. (2020) show that, among Muslims, identifying as religious significantly decreases the desire to migrate to OECD countries.

This paper proposes a new conceptual framework and empirical evidence to fill that gap in the literature. We posit that secularity can be a major driver of migration in contexts where the society at large is highly religious. Our core proposition is that individuals who hold secular beliefs and lifestyles incur a psychological cost when their social and political environment is dominated by religious values. This dissonance serves as a push factor encour-

aging emigration. Conversely, more religious individuals may be deterred from emigration by the cultural comfort they enjoy at home and by the anticipated difficulty of integrating into a more secular society abroad. In this way, secular orientations can fundamentally shape the cost–benefit calculus underlying migration decisions, above and beyond economic incentives.

Within this theoretical perspective, we further distinguish between individual secularity and socio-political secularity and argue that each may influence migration in different ways depending on the individual’s community context. In Muslim-majority societies, both forms of secularity set an individual apart from prevailing norms, potentially making daily life less comfortable and bolstering the appeal of more secular destinations. In contrast, for members of a Christian minority living in a Muslim-majority country, advocating secular politics is often a common, pragmatic stance (aimed at safeguarding minority rights) rather than a distinctive personal trait. Thus, among minorities, it may be primarily the individual aspect of secularity that differentiates who feels driven to leave.

We also extend our framework to consider the nature of migration (regular vs. irregular). We theorize that, usually, secular dissatisfaction with one’s home society primarily motivates the decision to migrate if a reasonably safe and legal opportunity is available. However, the case of religiously unaffiliated individuals may be different. In highly religious societies, they may face severe isolation or persecution (Al-Azmeh, 2020) and could experience such acute disutility at home that even irregular migration can become a rational consideration.

In summary, our study makes several contributions. Theoretically, we introduce a novel framework that links secularity to migration by highlighting the psychological costs of value incongruence between individuals and their societies. We formulate explicit hypotheses from this framework, delineating how individual vs. socio-political secularity should affect migration aspirations for majority and minority groups, and for different destination types. Empirically, we bring new evidence from the 2018-2019 Arab Barometer to test these hypotheses. We construct innovative composite indices of secularity using multiple correspondence analysis and address potential endogeneity of secular attitudes through an instrumental-variable

approach. Finally, we differentiate among migration destinations (secular Western countries vs. predominantly Muslim countries) and modes (regular vs. irregular migration), which provides a more detailed picture of how cultural factors shape not just the desire to migrate, but how and where individuals aspire to go.

Our main empirical findings confirm that secularity is a significant determinant of migration aspirations in the Arab world. Secular-minded Arabs – of both Muslim and Christian background – are more likely to express a desire to emigrate, after controlling for economic and demographic factors. This effect is destination-specific: secular individuals predominantly aspire to move to highly secular Western countries, rather than to other Arab or Muslim-majority countries. Moreover, in line with our theoretical expectations, we find notable differences between Muslims and Christians in which aspect of secularity matters. Among Muslims, both weak individual religiosity and support for secular politics are associated with higher emigration aspirations. Among Arab Christians, by contrast, only weak individual religiosity translates into a greater desire to emigrate, whereas holding secular political views has no significant effect. We also find that higher secularity (in either form) correlates with regular migration aspirations, but not with intentions for irregular migration. Finally, Arab atheists, agnostics, and, more broadly, Arab nones share with secular Muslims and Christians a preference for highly secular destinations. However, they diverge in their migration strategies, displaying a greater propensity for irregular migration channels.

The remainder of the paper is organized as follows. Section 2 reviews the literature on the role of cultural and religious factors on migration. Section 3 constructs a theoretical framework for analyzing the relationship between secularity and migration. Section 4 describes the data. Section 5 presents the empirical strategy. Section 6 reports the results. Section 7 concludes.

2 Literature

Existing research has extensively focused on the effects of migration on religiosity. In this strand of the literature, religion affiliation is often viewed as a means of social integration (Casanova, 2007; Spohn, 2009 ; Foner Alba, 2008; Connor Koenig, 2013). In their quest for stability and connection in unfamiliar settings, migrants frequently turn to religious institutions for moral, communal, and material support (Hirschman, 2004; Ambrosini et al., 2021). In addition, it has been shown that religious practices may undergo significant changes within host societies. Upon arrival, some migrants may scale back their religious engagement (Connor, 2008; Massey and Higgins, 2011; Diehl et al., 2013; Van Tubergen, 2013), while others, facing assimilation challenges, may deepen their connection to their original faith (Platt, 2014; Connor, 2010).

The reverse relationship, namely the impact of religious and secular beliefs, practices, and values, has been far less explored. Yet, cultural aspects are crucial determinants of migration trends. Belot and Ederveen (2012) found that cultural barriers, particularly differences in language and religion, are more critical than traditional socio-economic factors in explaining migration flows across OECD countries. Their analysis, focusing on migration movements between 22 OECD countries from 1990 to 2003, suggests that cultural differences between countries with diverse dominant Christian denominations is a major barrier to migration. Nevertheless, their study, which is set within a macro framework, does not establish that differences in individual religious orientation are a brake on emigration. Furthermore, the widespread secularization in many OECD countries indicates that the majority religious identity of a destination country may have a minimal impact on migration motivation, as these countries are often defined more by their secular nature than their religious identity.

Among the limited studies addressing the role of religion in international migration dynamics is Myers' (2000) work. He examines the religious practices of married American citizens from 1980 to 1997 and their impact on migration decisions. He finds that individuals deeply involved in their church's social activities are less inclined to consider migration, as it

would mean losing established social connections without assurance of forming new ones in the destination country. Contrarily, church attendance seems not to influence the decision to migrate. Consequently, it is not so much religiosity that seems to be a barrier to emigration but the fear of losing social ties.

While earlier studies predominantly focused on external indicators of religiosity (such as attendance and participation in church activities), Hoffman et al. (2015) broaden the scope by including internal religiosity (spirituality) in their analysis of Mexican Catholic students' migration intentions under 18 years of age. They show that high levels of external religiosity are associated with a decreased desire to live and work in the United States, as it implies severing ties with one's religious community. Conversely, a higher level of internal religiosity, marked by a strong belief in God, correlates with an increased willingness to migrate, as faith helps to overcome the obstacles to emigration.

Nevertheless, it is rather tricky to draw conclusions about the role of religion in migration intentions from this study for three reasons. First, it focuses exclusively on a population of adolescents aged between 14 and 18. This is therefore a very limited population whose external religiosity behaviors are most certainly correlated with the religious behaviors of the parents. Second, the country of origin (Mexico) is more secularized than the country of destination (the USA). According to the Pew Research Center, 56% of the U.S. population considered religion to be very important in their lives, compared with 44% in Mexico (Pew Research Center, 2014, p. 40). It is therefore rather surprising that external religiosity is associated with less intention to migrate to a less secularized country. Third, many cofactors are missing, and the endogeneity of omitted variables is not controlled.

While earlier research primarily focused on Christian communities, more recent studies have expanded to encompass Muslim populations. Falco and Rotondi (2016) investigate the influence of radical Islam on the willingness to migrate from the Arab world. Their study is based on the second (2010-2011) and third (2012-2014) waves of the Arab Barometer, covering nine Arab countries. They define religious extremism as adherence to the ideas of

political Islam, with religion operating in all spheres of life, including social and political life. Using an additive scale index and Principal Component Analysis, the authors constructed an indicator measuring radical Islam based on respondents' opinions regarding the use of Islamic law in formulating criminal law, personal status laws, and inheritance laws within their country. They show that individuals with radical views of Islam are the least willing to migrate and assert that these individuals face a higher psychological cost associated with migration. However, Falco and Rotondi (2016) restrict their analysis to the most radical fringe of the Islamic spectrum, thereby overlooking how mainstream beliefs, everyday devotional practices and ethical values held by the vast majority of Muslims may also shape migration aspirations.

Similarly, Docquier et al. (2020) suggest that strong religious practice acts as a barrier to mobility. Presenting religiosity as a cultural trait, they show that Muslims self-select based on this criterion, with less religious individuals being more likely to consider migrating from a MENA country to an OECD state. To construct their religiosity indicator using Principal Component Analysis, the authors use two questions from the Gallup World Poll surveys: "Is religion an important part of your daily life?" and "Have you attended a place of worship or religious service within the past seven days?". Compared with previous studies, the work of Docquier et al. (2020) represents a step forward, examining the religiosity of individuals in 17 MENA countries over the period 2007 to 2016. Although it could be argued that the first question only captures individuals' subjective perception of religiosity, and that the second question may only reflect the search for social ties (Ellison and Georges, 1994), the results of Docquier et al. (2020) lay the foundations for a more thorough analysis of the role of secularity in migration dynamics.

More recently, Kırkıç (2024) explored the influence of religious identity on migration intentions in nine MENA countries, using data from the Arab Opinion Index covering the period 2012-2020. Two distinct dimensions are examined. First, the author considers the level of religiosity as perceived by individuals themselves, distinguishing between two groups:

“the very religious and religious” versus “the non-religious.” Second, the analysis incorporates the social dimension, assessing whether individuals express a preference for social circles composed of religious people. Using a logistic regression model applied separately to each national context, the author finds that individuals who self-identify as religious exhibit a lower propensity to migrate. Similarly, those who prefer predominantly religious social environments also demonstrate reduced migration intentions.

In the same vein, Sortheix et al. (2023) examine the role of religiosity in shaping migration intentions among Arab Mediterranean youth. Using the Sahwa Youth Survey 2016, religiosity is measured indirectly through the value of tradition, as defined within Schwartz’s value framework. Specifically, participants’ endorsement of the statement "Tradition is important to this person; following the rules established by religion or society" was used as a proxy for religious commitment. They show that youth who feel out of sync with the dominant traditional and religious values of their country are more likely to aspire to migrate.

The recent literature has expanded our understanding of the religiosity/secularity-migration nexus but still suffers from several limitations that the present article seeks to overcome. *First*, no study has yet constructed a theoretical framework that would allow a holistic examination of the interplay between religiosity—or secularity—and migration. Some contributions merely note in passing the probable psychological cost of migration for religious individuals living in religious environments, without further elaboration (Falco and Rotondi, 2016; Sortheix et al., 2023), whereas the majority pursue purely empirical analyses.

Second, from a methodological standpoint, most studies rely on measures of religiosity that capture only a single dimension, or on subjective self-assessments in which respondents simply declare whether or not they consider themselves religious (Myers, 2000; Hoffman, 2015; Sortheix et al., 2023; Kırkıç, 2024). Such indicators fail to capture the multidimensional nature of religiosity and to distinguish between its private expression and its manifestations in the social, economic, and political spheres. Even in the rare studies that combine several variables to build an indicator of religiosity, the authors rely on additive scale indexes or

principal component analysis (Falco and Rotondi, 2016; Docquier et al., 2020)—methods that, as we show below, are not fully appropriate for indicators based on categorical variables, because the distances between categories are not equivalent. Moreover, issues of causality and the treatment of endogeneity have received very little attention.

Third, existing empirical work remains limited in focus and coverage along three dimensions. To begin with, all cited studies concentrate on a single religious community—Christians in Belot and Ederveen (2012), Myers (2000), and Hoffman et al. (2015), or Muslims in Falco and Rotondi (2016), Docquier et al. (2020), Sortheix et al. (2023), and Kırkıç (2024). Such approaches do not allow us to identify the effects of religiosity or secularity according to whether individuals belong to the majority or a minority. In addition, the case of people with no religious affiliation has never been addressed. Furthermore, the impact of religiosity on the choice of destination country has been examined only by Falco and Rotondi (2016), and solely in the context of radical Islam. Finally, the existing literature tends to treat migration as a homogeneous phenomenon, without distinguishing between regular and irregular migration. This lack of differentiation obscures the specific effects of secularity on minority populations, particularly those vulnerable to persecution based on their (non-)religious identity.

3 Theory

3.1 The psychological cost of secularity in a religious environment

Why would one expect secularity to be a determinant of migration aspirations? Theoretically, we can assume that an individual will decide to migrate if the differential between expected gains and the cost associated with migration is positive (Todaro, 1969). In classical economic models, wage differentials and the monetary costs of migration have traditionally been considered as the primary factors shaping the cost-benefit analysis underlying migration decisions (Borjas, 1987; Todaro, 1969). Nevertheless, the migration decision also encompasses psy-

chological costs and benefits. Sjaastad (1962) notably emphasized that the act of migrating entails non-monetary costs arising from the disruption of familiar social environments and the challenges associated with adapting to new cultural and social contexts. Accordingly, migration decisions can be seen as the result of a cost-benefit analysis that integrates both economic and psychological dimensions.

From this perspective, we assume that secularity constitutes a determinant likely to shape individuals' cost-benefit calculus with regard to migration. Contrary to Sjaastad (1962), who considers the existence of a psychological cost if and only if individuals decide to move to another region or country, we assert that it depends fundamentally on the religious, social and political values of individuals. In a highly religious environment such as the Arab world, where social and sometimes political norms are dictated by the religious reference, secular individuals can incur a significant psychological cost to stay. This can push them to migrate to cultural environments that would be more in line with their personal values in order to reduce this cost. Conversely, religious individuals living in highly religious societies would face a significant psychological cost in migrating, due to the acculturation involved.

Thus, secularity – and, symmetrically, religiosity – acts simultaneously as both a push and pull factor in migration decisions. On the one hand, it constitutes a push factor by reducing the psychological dissonance secular individuals would face by staying. On the other hand, it is a pull factor by enhancing the expected psychological benefits from relocating to secular environments more consistent with their values. We thus hypothesize a significant positive effect of secularity on migration aspirations directed towards secularized nations. In contrast, the impact on migration aspirations to religiously similar countries is unlikely to be significant, as migrating to such destinations would not reduce the psychological cost induced by the mismatch between individual and societal values.

3.2 Distinguishing the effects of different forms of secularity on migration aspirations

In this article, we build upon Taylor’s (2007) theory to analyze two dimensions of secularity. First, at the individual level, secularity refers to the relative withdrawal of religious belief and belief and practice – the personal distancing from prayer, worship and doctrinal commitment. Second, at the socio-political level, secularity designates the evacuation of divine reference from public spaces. Here, the norms that govern economic exchange, legal order and civic deliberation claim to stand on immanent rationales – utility, rights, or general interest – rather than on transcendence. Thus, while individuals may remain believers, the political community operates as if belief were strictly optional. We expect the effect of these two forms of secularity on migration aspirations to differ according to individuals’ majority or minority status within a given society.

For Muslim individuals living in Muslim majority countries (majority status), being secular in either sense tends to create friction with their surrounding environment, which in turn pushes them toward emigration. A Muslim who is privately not very religious may feel out of place in a society where social life is structured around religious customs and expectations. They incur a daily psychological cost of conforming or self-censoring. Additionally, if they hold secular political views – for example opposing sharia-based laws – they may feel politically alienated or even repressed under regimes where Islam is deeply embedded in governance. Both types of secularity thus subtract from the “benefits of staying” and add to the appeal of leaving.

For Christian minorities in the Arab world (minority status), the calculus is somewhat different. Political secularism has historically been valued by Christian communities as it guarantees tolerance and autonomy under Muslim-majority rule (McCallum, 2018). Because this position serves as a protective framework, it is shared by both devout and secular Christians alike. In this context, supporting secular views regarding the role of religion in public life is not necessarily a marker of personal secularity, but rather a strategic stance aimed

at ensuring freedom and rights. As such, socio-political secularity is unlikely to significantly shape migration aspirations of Arab Christians, since it reflects a near-consensual orientation.

Therefore, among Arab Christians, it is primarily individual secularity, and not socio-political secularity, that is likely to shape migration aspirations toward secularized countries.

Table 1: Expected effect of secularity on migration aspirations among Arab Muslims

	To a Western country	To a Muslim majority country
Individual secularity	↑	0 or ↓
Socio-political secularity	↑	0 or ↓

Legend: ↑ = positive effect; 0 = no effect; ↓ = negative effect.

Table 2: Expected effect of secularity on migration aspirations among Arab Christians

	To a Western country	To a Muslim majority country
Individual secularity	↑	0 or ↓
Socio-political secularity	0	0 or ↓

Legend: ↑ = positive effect; 0 = no effect; ↓ = negative effect.

Tables 1 and 2 summarize the empirical implications of the theory. Table 1 reports the expected effects of each secularity dimension for Muslims, while Table 2 does so for Christians.

3.3 Secularity, regular and irregular migration

When an individual decides to migrate, he or she has two options. Either they decide to migrate legally (by obtaining a valid visa, for example), or they decide to migrate irregularly in particular by crossing borders illegally, without the required papers.

Actually, the arguments we developed earlier regarding the role of secularity in migration aspirations apply essentially to regular migration. Irregular migration often represents an option of last resort, undertaken by those facing extreme push factors such as conflict, persecution, or economic ruin (Dennison, 2022). In such situations, fundamental survival calculations dominate: even highly religious individuals may flee war zones, and even secular

individuals will attempt dangerous routes if trapped. Although Arab societies are deeply religious, secular individuals—whether Muslim or Christian—can usually live safely as long as they do not express their secular beliefs publicly (Al-Azameh, 2020). Therefore, for a secular Muslim or Christian, the psychological benefits of being in a secular environment that promotes secular values are largely offset by the risks and instability associated with irregular migration.

However, the case of apostates, individuals leaving Islam or even individuals with no religion may be different. These individuals can face a strong non-monetary cost of remaining in a predominantly Muslim country. Moreover, they can face systemic marginalization (Al-Azameh, 2020), legal restrictions (e.g., blasphemy laws), and social stigmatization (Azedi, 2025) and they may even suffer a form of social and economic ostracization (Schielerke, 2012). For these individuals, disutility is therefore both psychological and monetary. In such a context, when individuals no longer have any economic or psychological incentive to remain in their country of origin, we can expect them to have a greater propensity to consider irregular migration as a migration option, compared to the rest of the population.

4 Data

4.1 The Arab Barometer survey

Our study relies on survey data from the Arab Barometer, a research network established in 2005 through a collaboration between Arab academics and the University of Princeton and the University of Michigan. As part of the Global Barometer project, which includes surveys from various regions worldwide, the Arab Barometer provides detailed insights into public opinion across political, economic, and social issues in the Middle East and North Africa. The dataset now spans 16 countries with over 125,000 respondents since 2006.

Our analysis specifically leverages data from the fifth survey wave (2018-2019)^[4], comprising 28,271 face-to-face interviews across 12 countries. Among the twelve countries, we have excluded Kuwait from the analysis because questions relating to religious practices and opinions were not asked. The participants in this study are adults over 18^[5], carefully selected to ensure the sample represents the broader society. The survey adopts stratified sampling to achieve this representativeness. This method divides the population into homogeneous groups, usually by region, and further by urban or rural status. A random sample is then drawn from each group, ensuring that each segment of the population is proportionally represented in the sample, which accurately reflects societal views. It should be noted that some questions in the questionnaire were asked of only one respondent out of two. Nevertheless, the random nature of the choice of individuals questioned ensures that the sample remains representative.

4.2 Migration data

To study the impact of secularity on migration dynamics, we use migration aspirations rather than actual migration flows for data availability purposes. In this regard, Docquier et al. (2014) and Tjaden et al. (2019) have shown that migration intentions are very strongly correlated with actual migration flows. Indeed, while not everyone who aspires to migrate will do so, all those who do migrate necessarily had a prior intention to migrate. Migration aspirations are therefore an excellent proxy for studying the determinants of migration dynamics.

To capture migration aspirations, we rely on two questions from the Arab Barometer survey : "Have you ever thought about emigrating from your country?" and "Would you

4. We restrict the analysis to the fifth wave of the survey because it is the only wave that contains the full set of practice-based religion items needed to build a holistic secularity indices; all other waves omit several of these questions, leaving important dimensions unmeasured. However, in order to check the robustness of our results, secularity indicators were constructed for waves 7 and 8. The results are presented in Appendix E.

5. The initial inclusion criterion required participants to be at least 18 years old. However, 2 individuals aged 17 were included in the interviews due to oversight.

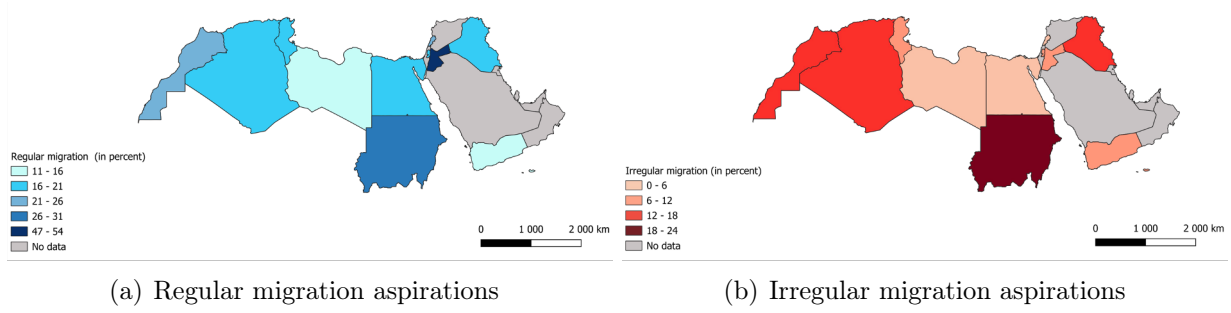


Figure 1: Migration aspirations (at the country level)

consider leaving your country even if you didn't have the required papers that officially allowed you to leave?". The first question refers to total emigration, while the second relates to irregular emigration. We recode these variables so that they take two modalities: no and yes. From these two variables, it is possible to create a third, namely aspirations to regular emigration, whose yes modality is constructed by considering the yes modality in the first question (total emigration) and the no modality in the second question (irregular emigration). Finally, individuals indicate the destination country to which they wish to migrate. We group respondents' answers into two variables: migration aspirations to Western, highly secular countries⁶, and migration aspirations to Muslim-majority nations⁷.

Table 3 reports the proportion of the population wishing to migrate by country, as well as the type of migration planned and the proportion of the population wishing to migrate to a Western country or another predominantly Muslim country. A wide disparity seems to be emerging. While 30.78% of those questioned are ready to emigrate, the figures soar in Sudan, where over 56.30% of people want to leave their homeland. On the other hand, there are fewer would-be migrants in countries such as Libya (17.43%) and Egypt (21.25%). Furthermore, while regular migration seems to be the most popular option considered by individuals (21.54% vs. 9.24% for irregular migration), it should be noted that in Sudan, clandestine migration is a much-considered strategy. Economic and political instability could

6. Highly secular destinations refer to the United States, Canada, the United Kingdom, France, Germany, Spain, Italy, and a residual group labelled "other Western countries".

7. Arab destination countries refer to Saudi Arabia, Qatar, Bahrain, Kuwait, Oman, Egypt, Jordan, Lebanon, Morocco, Algeria, and Tunisia.

Table 3: Migration aspirations by country (in percent of total respondents)

Country	Willingness to migrate	Regular migration	Irregular Migration	Western Destination	Muslim Destination
Egypt	21.25	15.41	5.84	8.82	13.07
Iraq	34.69	21.52	13.18	14.60	14.31
Jordan	39.24	33.25	6.00	18.96	19.22
Lebanon	25.51	22.71	2.80	17.48	3.46
Libya	17.43	11.90	5.54	10.25	4.71
Morocco	38.85	23.97	14.87	31.15	4.36
Palestine	27.19	19.65	7.53	12.81	12.21
Sudan	56.30	32.47	23.82	22.15	35.20
Tunisia	30.28	19.67	10.61	17.92	3.09
Yemen	24.33	15.73	8.59	5.90	17.60
Total	30.78	21.54	9.24	15.59	12.28

explain this phenomenon. The country is going through a serious economic crisis, and protests have led to the fall of President Omar el Bechir in recent years. In the Maghreb, this is also a popular option. By virtue of its geography, Morocco is a veritable migration corridor between the European and African continents. Moreover, would-be emigrants are overall more likely to consider migrating to Western countries. In Sudan and Yemen, however, Muslim countries are widely preferred.

4.3 Construction of secularity indicators

Secularity indicators are constructed through multiple correspondence analysis (MCA), using data from several questions in the Arab Barometer survey relating to religious beliefs, practices and opinions. The methodology used to construct the indicators is described in the next section.

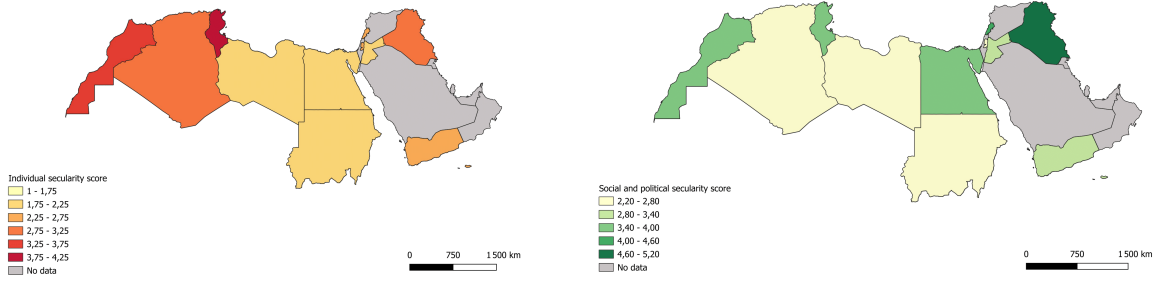
We construct two distinct indicators to capture the different facets of secularity. The first, which we call "individual secularity", reflects distancing from ritual practices and religious behavior. The second, which we call "socio-political secularity", measures secular views on the role religion should play in economic, social and political life.

We construct the individual secularity indicator using the frequency of prayer (five times

a day, once a day, several times a week, once a week, once a month or never), the frequency of reading the Quran for Muslims or the Bible for Christians, and the frequency of attendance at weekly Friday services for Muslims and Sunday services for Christians (always, most of the time, sometimes, rarely as modalities of the last two variables). For Muslims, we also include the frequency of Fajr and Istikhara prayers. Fajr is the first of the five prayers of the day and must be performed before sunrise, which often requires waking from sleep, reflecting the intensity of faith. Istikhara is a prayer in which the Muslim asks God to help him make the best decision before making important choices. This last variable reflects the importance of God in the management of the individual’s daily affairs.

The socio-political secularity indicator is constructed based on individuals’ opinions about the role religion should play in the economic, social, and political spheres. These opinions reflect the secularity of individuals when they believe that this role should be limited or nonexistent, as it can reasonably be hypothesized that they will translate into political choices (such as voting for secular parties), economic practices (such as not adhering to the principle of prohibition of interest for Muslims, for example), or social behaviors (such as certain clothing practices). Three statements submitted to Christians and Muslims are used to construct the indicator: “Religious practice is a private matter and should be separated from socioeconomic life”, “Religious clerics should have influence over the decisions of government” and “Your country is better off if religious people hold public positions in the state”. Respondents are asked whether they strongly agree, agree, disagree or strongly disagree with these assertions. A fourth variable is also included in the construction of the secularity indicator for Muslims, and relates to the extent to which religious laws (sharia) should play a role in shaping legal norms (entirely based on the sharia, mostly based on the sharia, equally be based on sharia and the will of the people, mostly be based on the will of the people; or entirely be based on the will of the people).

The secularity scores are reported in Table [4](#). Analyzing the data, we observe significant variations in secularity scores both within and across countries. For instance, Egypt exhibits



(a) Individual secularity scores

(b) Socio-secularity secularity scores

Figure 2: Secularity scores (at the country level)

a low individual secularity score (1.840) but a much higher socio-political secularity score (3.806). This suggests a dichotomy where personal religious beliefs and practices might be deeply held, yet people’s views regarding the role religion should play in the economic, social, and political spheres are more secular. In contrast, Tunisia shows the highest individual secularity score (4.129) amongst the listed countries, which aligns with its higher socio-political secularity score (3.939), indicating a more uniformly secular environment across both personal and broader societal aspects. On the whole, Arab countries are not very secularized, with average secularity scores generally below 5 on a scale from 0 to 10. Surprisingly, however, Christians seem to be less secular than Muslims on average in terms of religious practice (1.392 for Christians and 2.625 for Muslims), but much more secular in social and political matters (5.363 for Christians and 3.350 for Muslims), with scores exceeding 6 in Jordan and Palestine.

4.4 Other determinants of migration

In addition to our secularity indicators, we incorporate a range of economic, demographic, and institutional control variables.

As highlighted by Docquier et al. (2014), individuals often seek migration to improve job

Table 4: Secularity scores by country (on a 0-10 scale)

Country	Individual secularity			Socio-political secularity		
	Total	Muslims	Christians	Total	Muslims	Christians
Egypt	1.840	1.921	1.160	3.806	3.611	5.457
Iraq	2.937	2.937	2.884	4.832	4.839	2.878
Jordan	2.178	2.175	2.387	2.967	2.914	6.260
Lebanon	2.644	3.754	1.144	4.530	4.084	5.132
Libya	1.985	1.985	-	2.600	2.600	-
Morocco	3.037	3.037	-	3.793	3.793	-
Palestine	2.330	2.319	2.446	2.653	2.311	6.260
Sudan	1.930	1.928	2.154	2.269	2.231	5.348
Tunisia	4.129	4.129	-	3.939	3.939	-
Yemen	2.224	2.224	-	3.141	3.141	-
Total	2.537	2.625	1.392	3.494	3.350	5.363

and salary prospects. To capture this, we include a dummy variable indicating if earnings exceed the median wage, based on survey data. Employment status also influences migration intent; hence, we introduce a variable assigned a value of 1 if the respondent is employed

According to Chort (2014), men are predominantly inclined to migrate for economic reasons, as supported by Vandenbrande et al. (2006). Conversely, women might migrate following family movements (Cerrutti and Massey, 2001) or to escape gender-based discrimination or violence (Ryussen and Salomone, 2018), necessitating the inclusion of a gender variable in our analysis.

Furthermore, age is generally inversely correlated with migration intentions (Migali and Scipioni, 2019); therefore, we incorporate participants' ages into our model. The level of education significantly predicts migration intentions, with highly qualified individuals more likely to migrate for appropriate job opportunities (Van Mol, 2016; Dao et al., 2018; Migali and Scipioni, 2019; Milasi, 2020). This is represented by a variable reflecting the highest educational level achieved.

Additionally, internet usage significantly lowers the barriers to migration by facilitating information access and communication with existing expatriates, and the frequency of internet use is included to proxy these network effects (Vilhelmson and Thulin, 2013).

Moreover, the costs associated with migration vary between urban and rural areas, with urban residents typically facing lower barriers due to better access to information and financial resources (Epstein and Gang, 2006)

Lastly, institutional trust plays a key role in the decision to emigrate. This is captured through a variable assessing respondents' satisfaction with governmental performance. A variable is then created to reflect their level of satisfaction (from very bad to very good). We expect the willingness to migrate to increase when individuals have a poorer perception of the political institutions in their home country.

Table [C1](#) reports descriptive statistics for all control variables used in the empirical analysis.

5 Methods

5.1 Construction of the secularity indicators

To construct our secularity indicators, we resort to Multiple Correspondence Analysis (MCA). MCA is designed to analyze and interpret the relationships between multiple categorical variables, enabling us to extract qualitative information and transform it into quantitative indicators of secularity.

Unlike other factorial methods such as Principal Component Analysis (PCA) or Factor Analysis (FA), MCA is specifically tailored to handle qualitative variables expressed categorically, without assuming linearity or numeric distributions. PCA and FA, for instance, assume linear relationships and require continuous data or at least ordinal scales with numeric interpretations. Importantly, PCA and FA implicitly presume equal distances between categories, a problematic assumption for purely categorical variables, as there is no inherent numerical distance between modalities. MCA, in contrast, efficiently captures the multidimensional nature and non-linear associations inherent in categorical data without imposing arbitrary numeric scales.

Following Asselin (2002), the construction of the secularity indicator unfolds in four stages: transforming categorical variables into a binary matrix, computing a profile matrix, applying Multiple Correspondence Analysis (MCA) to extract significant patterns, and finally computing the secularity indicators and normalizing them for the sake of interpretability.

First, the process begins by transforming the chosen categorical variables X into a binary indicator matrix B . For each respondent i and modality j , the matrix entry b_{ij} is set to 1 if the individual's response falls into modality j , and 0 otherwise.

$$b_{ij} = \begin{cases} 1 & \text{if observation } i \text{ belongs to modality } j, \\ 0 & \text{otherwise.} \end{cases} \quad (1)$$

Second, we compute the profile matrix P from B , where each row p_i represents the normalized frequency of modality occurrences for each observation i . This normalization ensures that the sum of frequencies in each row equals one, allowing for the relative comparison of categories across observations.

$$p_{ij} = \frac{b_{ij}}{\sum_j b_{ij}} \quad (2)$$

Third, MCA is then applied to the profile matrix P , identifying underlying dimensions that encapsulate the variance in secularity patterns. We then extract the weights W from the first axis, representing the most significant secularity trend captured by the MCA.

Fourth, the secularity indicators S_i for each respondent are computed by applying the weights W from the first principal axis of the MCA to their profile p_i , aggregating these weighted responses to quantify each individual's secularity level.

$$S_i = \sum_j p_{ij} \times w_j \quad (3)$$

Finally, the scores are normalized to a 0 to 10 scale, where 0 indicates the lowest degree

of secularity and 10 the highest.

$$S_i^{norm} = 10 \times \left(\frac{S_i - \min(S)}{\max(S) - \min(S)} \right) \quad (4)$$

5.2 Empirical strategy

The dichotomous nature of our dependent variable, which takes the value 1 when the individual aspires to migrate and 0 otherwise, requires the use of a binary choice model. Accordingly, we could, as a first step, resort to a standard probit model to estimate the effect of secularity on migration aspirations in the Arab world:

$$Emigration_i = \beta_0 + \beta_1 S_i + \Psi X_i + \mu_c + u_i \quad (5)$$

where S_i the dependent variable indicating consideration of emigration for individual i , S_i corresponds to the value of the secularity index, X_i represents control variables, Z_i are fixed country effects, and u_i is the error term.

However, we must be cautious about the potential endogeneity of secularity indicators. In our context, endogeneity can essentially arise from simultaneity and omitted variables, such as unobserved socio-economic factors that could simultaneously impact both secularity and migrations aspirations.

To circumvent these issues, our empirical strategy is based on an instrumental variable probit model in two stages. The first stage involves regressing the secularity variable on selected instruments

$$S_i = \alpha_0 + \alpha_1 instrument_i + \Gamma X_i + \delta_c + \varepsilon_i \quad (6)$$

where S_i corresponds to the level of secularity for individual i , $instrument_i$ represents our instrumental variables, X_i is a vector of control variables, δ_c represents country fixed effects, and ε_i is the error term.

The second stage entails regressing the migration aspirations variable on the predicted values of secularity obtained from the first stage, alongside the same set of controls and fixed effects:

$$Emigration_i = \beta_0 + \beta_1 \hat{S}_i + \Psi X_i + \mu_c + u_i \quad (7)$$

where $\hat{S}_i$ denotes to the predicted values of secularity from the first stage.

The empirical literature on the impact of cultural traits on migration has largely neglected the question of endogeneity, with a few exceptions. Docquier et al (2020) used the propensity score matching method to control for endogeneity. To control for the endogeneity of radical Islam, Falco and Rotondi (2016) used two instruments: individuals' agreement on the fact that banks charging interest contradict the teachings of Islam, and that difference and variation between Islamic scholars with regard to their interpretation of religious topics is not acceptable. We could have used the first of the two variables, which in our view reflects adherence to religious principles - or conversely secularity - much more than radical Islam. However, we cannot use these variables, as our analysis covers secularity among Muslims as well as Christians and people without religion.

Instead, we use two instrumental variables. The first corresponds to individuals' agreement that the best redistribution system to help the poor is based on a secular system of taxation rather than one based on charity (or *sadaqât*). The most secular individuals are expected to be the most inclined to a secular system of redistribution through taxation, while those most attached to religious values are likely to prefer a system based on religious charity. On the other hand, there is no theoretical argument to believe that considering that helping the poor via one redistribution model or another is linked to a willingness to migrate (in contrast to the view that it is important to set up redistribution systems to help the most needy). Our second instrument relates to people's trust in religious leaders. Trust in religious leaders is expected to be strongly correlated with religiosity. Indeed, religious practice involves following—and therefore trusting—religious leaders. The decision to adhere to and practice a religion is shaped by confidence in those who safeguard its beliefs and norms, as practice

and conviction flow from their teachings. Moreover, the religious leaders in whom individuals place their trust in the Arab world are often politically independent figures (Brown, 2017; Grewal and Monroe, 2021) and are primarily concerned with spiritual and ritual matters, thereby supporting the exclusion restriction. Accordingly, trust in religious leaders would not be expected to correlate with migration intentions, thereby supporting the validity of the exclusion restriction.

6 Results

6.1 Secularity as a determinant of migration

Table 5 provides a preliminary analysis on the role of secularity in migration aspirations. Columns (1)-(2) report the effects of individual secularity, while columns (3)-(4) show the effects of socio-political secularity. All specifications include country fixed effects. In line with the theoretical expectations, these initial results suggest that both high individual secularity scores and high socio-political secularity scores are significantly associated with an increased likelihood of migration, irrespective of the religion of the individuals, the type of migration considered or the destination of interest. The regression coefficients indicate a robust effect, even when controlling for additional control variables. Note that these variables are globally significant, and have the expected sign. The Arab population is no exception to the rule, individuals wishing to leave their country tend to be younger and more likely to be male. In addition, as literature suggests, people who want to migrate come from cities and have a more educated profile. Moreover, the connection to the Internet helps to increase their willingness to migrate, by facilitating their access to information. Finally, the more satisfied individuals are with their government the less they aspire to migrate.

Table 5: Preliminary regressions: a probit model

	(1)	(2)	(3)	(4)
Individual secularity	0.085*** (0.004)	0.027*** (0.005)		
Socio-political secularity			0.024*** (0.003)	0.012*** (0.004)
Age		-0.019*** (0.001)		-0.020*** (0.001)
Gender				
Female		-0.377*** (0.022)		-0.388*** (0.022)
Location				
Rural		-0.168*** (0.025)		-0.170*** (0.025)
Refugee camp		0.080 (0.092)		0.082 (0.092)
Employment Status				
Employed		0.032 (0.023)		0.029 (0.023)
Education				
Secondary		0.135*** (0.027)		0.123*** (0.027)
University		0.249*** (0.030)		0.231*** (0.030)
Income				
Above median		-0.044* (0.023)		-0.046** (0.023)
Government satisfaction		-0.084*** (0.003)		-0.084*** (0.003)
Internet use		0.076*** (0.006)		0.076*** (0.006)
Observations	9,580	9,580	9,580	9,580

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. All specifications include country fixed effects.

6.2 Secularity, regular and irregular migration

Table 6: Secularity and regular and irregular migration

	Regular migration (probit model)		Irregular migration (probit model)	
	(1)	(2)	(3)	(4)
Individual secularity	0.016*** (0.006)		0.001 (0.005)	
Socio-political secularity		0.013*** (0.005)		0.029 (0.023)
Age	-0.013*** (0.001)	-0.010* (0.006)	-0.019*** (0.001)	-0.010* (0.006)
Gender				
Female	-0.073*** (0.024)	-0.316 (0.176)	-0.652*** (0.032)	-0.370** (0.173)
Income				
Above median	0.051** (0.025)	-0.154 (0.237)	-0.225*** (0.032)	-0.223 (0.233)
Employment Status				
Employed	0.106*** (0.026)	-0.098 (0.174)	-0.097*** (0.032)	-0.071 (0.173)
Education				
Secondary	0.149*** (0.030)	0.135 (0.244)	0.055 (0.038)	0.050 (0.243)
University	0.302*** (0.033)	0.230 (0.268)	-0.008 (0.043)	0.153 (0.263)
Government satisfaction	-0.047*** (0.004)	-0.023 (0.031)	-0.091*** (0.005)	-0.039 (0.032)
Location				
Rural	-0.120*** (0.027)	0.010 (0.230)	-0.117*** (0.034)	-0.011 (0.228)
Refugee camp	0.082 (0.100)	0.077 (0.105)	0.081 (0.118)	0.079 (0.099)
Internet use	0.065*** (0.007)	0.027 (0.057)	0.036*** (0.009)	0.009 (0.058)
Observations	9,580	9,580	9,580	9,580

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All specifications include country fixed effects.

In Table 6, we investigate whether the effect of secularity on the likelihood of migration is similar when considering regular and irregular migration. We show that secularity affects only

the intention to migrate regularly, the coefficients associated with the intentions to migrate in columns (4) and (5) being non-significant. This indicates that, for both Muslims and Christians, the effect of secularity on migration aspirations manifests exclusively in intentions to migrate through regular channels, thereby corroborating our theoretical intuition. Table 6 also highlights the fact that the determinants of irregular emigration are different from those of regular emigration, particularly regarding the role of economic variables in migration intentions. In this respect, our results are in line with those of Restelli (2023).

6.3 Heterogeneous effects by religious affiliation

Tables 7 and 8 show the effect of secularity on migration aspirations, considering Christians and Muslims separately to investigate if there are differences in effects within these two sub-segments of the population.

Three main results emerge. First, both individual secularity and socio-political secularity affect the migration intentions of Muslims. However, it is only secularity vis-à-vis religious practices that motivates emigration among Christians. Second, both Muslims and Christians, when more secular, tend to seek migration to the West. This is certainly because the West is perceived by secular individuals as a secularized environment where they could live in harmony with their secular values. Third, the effect of secularity on migration aspirations to another predominantly Muslim country is not significant for Muslims. By contrast, for Christians, secularity is significantly associated with a reduction in the intention to migrate to another Muslim country. The ideological distance (being secularized in a country where the majority is not) along with the cultural distance (being Christian in a country where the majority is Muslim) likely explains this result. All these results are in line with the theoretical predictions summarized in Tables 1 and 2.

Table 7: Secularity and migration aspirations of Arab Muslims

	Overall migration		To Western countries		To Muslim majority countries	
	(1)	(2)	(3)	(4)	(5)	(6)
Individual secularity	0.034*** (0.006)		0.038*** (0.006)		-0.012* (0.007)	
Socio-political secularity		0.011** (0.004)		0.014** (0.005)		0.001 (0.005)
Age	-0.019*** (0.001)	-0.020*** (0.001)	-0.015*** (0.001)	-0.017*** (0.001)	-0.014*** (0.001)	-0.013*** (0.001)
Gender						
Female	-0.391*** (0.023)	-0.404*** (0.023)	-0.371*** (0.027)	-0.389*** (0.027)	-0.153*** (0.028)	-0.149*** (0.028)
Location						
Rural	-0.171*** (0.026)	-0.175*** (0.025)	-0.129*** (0.030)	-0.133*** (0.030)	-0.100*** (0.031)	-0.099*** (0.031)
Refugee camp	0.117 (0.093)	0.116 (0.093)	0.017 (0.112)	0.017 (0.112)	0.150 (0.104)	0.151 (0.104)
Employment Status						
Employed	0.018 (0.025)	0.015 (0.025)	0.010 (0.028)	0.007 (0.028)	0.074** (0.030)	0.075** (0.030)
Education						
Secondary	0.155*** (0.028)	0.144*** (0.028)	0.189*** (0.034)	0.176*** (0.034)	0.094*** (0.034)	0.098*** (0.034)
University	0.270*** (0.032)	0.250*** (0.032)	0.278*** (0.038)	0.255*** (0.037)	0.158*** (0.039)	0.164*** (0.038)
Income						
Above median	-0.064*** (0.024)	-0.062*** (0.024)	-0.048* (0.028)	-0.050* (0.028)	-0.110*** (0.028)	-0.111*** (0.028)
Government satisfaction	-0.084*** (0.004)	-0.084*** (0.004)	-0.067*** (0.005)	-0.067*** (0.005)	-0.055*** (0.005)	-0.055*** (0.005)
Internet use	0.072*** (0.007)	0.073*** (0.007)	0.085*** (0.008)	0.086*** (0.008)	0.044*** (0.008)	0.043*** (0.008)
Observations	8,895	8,895	8,895	8,895	8,895	8,895

Note: Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All specifications include country fixed effects.

Table 8: Secularity and migration aspirations of Arab Christians

	Overall migration		To Western countries		To Muslim majority countries	
	(1)	(2)	(3)	(4)	(5)	(6)
Individual secularity	0.091** (0.035)		0.112*** (0.039)		-0.079 (0.073)	
Socio-political secularity		-0.017 (0.013)		0.024 (0.014)		0.067 (0.041)
Age	-0.020*** (0.004)	-0.018*** (0.004)	-0.021*** (0.004)	-0.018*** (0.004)	-0.030*** (0.011)	-0.034*** (0.011)
Gender						
Female	-0.109 (0.102)	-0.072 (0.101)	-0.103 (0.109)	-0.058 (0.108)	-0.035 (0.265)	-0.094 (0.265)
Income						
Above median	0.260 (0.197)	0.312 (0.195)	0.306 (0.227)	0.351 (0.225)	-0.078 (0.437)	-0.214 (0.436)
Employment status						
Employed	0.320*** (0.108)	0.311*** (0.107)	0.353*** (0.118)	0.337*** (0.117)	0.037 (0.270)	0.053 (0.271)
Education						
Secondary	-0.592*** (0.144)	-0.556*** (0.144)	-0.585*** (0.160)	-0.513*** (0.159)	-0.264 (0.322)	-0.391 (0.335)
University	-0.356** (0.157)	-0.315** (0.155)	-0.282* (0.169)	-0.215 (0.167)	-0.460 (0.387)	-0.616 (0.406)
Government satisfaction	-0.064*** (0.022)	-0.045** (0.022)	-0.038 (0.024)	-0.012 (0.024)	0.068 (0.054)	0.034 (0.056)
Location						
Rural	0.086 (0.322)	0.100 (0.317)	0.152 (0.347)	0.167 (0.339)	0.761 (0.482)	0.734 (0.496)
Internet use	0.122*** (0.038)	0.120*** (0.038)	0.196*** (0.051)	0.188*** (0.051)	0.151* (0.084)	0.149* (0.085)
Observations	685	685	685	685	685	685

Note: Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All specifications include country fixed effects.

6.4 The special case of the Arab nones

Finally, we examine the specific case of religiously unaffiliated individuals in Table 9. This category, often referred to as *the nones* (Baker and Smith, 2009), encompasses individuals who self-identify as atheists, agnostics, or as not adhering to any particular religion, without

necessarily labeling themselves as atheists or agnostics. In our sample, individuals who explicitly state that they have no religion are extremely rare, with only 3 to 4 out of every 1,000 people in the Arab world identifying as such⁸.

To examine the migratory intentions of the nones, we do not rely on a composite indicator but instead use a binary variable: adhering to a religion (reference modality) or being religiously unaffiliated. Table 9 shows that being religiously unaffiliated is significantly associated with a higher likelihood of migrating to Western countries. These results are broadly comparable to those observed among secular Muslim and Christian populations in Arab countries. However, unlike secular Muslims and Christians, religiously unaffiliated individuals in the Arab world display a significantly greater propensity to consider irregular migration. Although no data are available on this specific issue, one may hypothesize that these individuals experience—or perceive themselves to be subject to—discrimination or even persecution in sociocultural environments where religion continues to structure much of the public and private spheres. However, these findings are preliminary and should be interpreted with caution, as the number of respondents identifying as non-religious in our sample is very small (32 individuals corresponding to approximately 0.35% of the sample). This can be attributed both to the limited penetration of secularism in the Arab world, compared to other parts of the globe (Taylor, 2008), and to a likely social desirability bias⁹. In this regard, future research would do well to explore these preliminary findings in greater depth, in order to better understand the migration dynamics of the nones in Arab-Muslim societies.

8. These figures are corroborated by other surveys indicating that the proportion of religiously unaffiliated individuals in the MENA region ranges between 0% and 1%. According to the Pew Research Center (2015), it stood at 0.6% in 2010 and is not expected to increase by 2050.

9. In predominantly religious societies, individuals may be inclined to report a religious affiliation even if they do not actually hold one.

Table 9: The special case of the Arab nones

	Overall migration	Irregular migration	To Western countries	To Muslim majority countries
	(1)	(2)	(3)	(4)
Religiously unaffiliated	1.510*** (0.744)	0.882*** (0.327)	1.158** (0.513)	0.547 (0.505)
Age	-0.020*** (0.001)	-0.017*** (0.001)	-0.016*** (0.001)	-0.014*** (0.002)
Gender				
Female	-0.422*** (0.031)	-0.643*** (0.031)	-0.376*** (0.036)	-0.175*** (0.039)
Income				
Above median	-0.048 (0.033)	-0.215*** (0.031)	0.114*** (0.038)	0.172*** (0.039)
Employment status				
Employed	0.008 (0.033)	-0.089 (0.031)	0.005 (0.038)	0.067* (0.041)
Education				
Secondary education	0.054 (0.038)	0.147*** (0.036)	0.186*** (0.045)	0.069 (0.048)
University education	-0.010 (0.044)	0.235*** (0.041)	0.224*** (0.051)	0.138** (0.054)
Government satisfaction	-0.091*** (0.005)	-0.088*** (0.005)	-0.065*** (0.006)	-0.061*** (0.007)
Location				
Rural	-0.176*** (0.036)	-0.012*** (0.033)	-0.136*** (0.042)	-0.126*** (0.043)
Refugee camp	-0.024 (0.137)	0.078 (0.117)	-0.213 (0.171)	0.101 (0.156)
Internet use	0.083*** (0.009)	0.038*** (0.008)	0.105*** (0.011)	0.039*** (0.011)
Observations	9,597	9,597	9,597	9,597

Note: Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. All specifications include country fixed effects.

6.5 Addressing causality

To address potential endogeneity, Table 10 reports the results of the instrumental variables probit model. These findings are consistent with those of the probit models. The effect of secularity—whether individual or socio-political—is significantly positive in both the bivariate model and the model that includes control variables. Notably, the magnitude of the coefficients associated with the secularity indicators has changed substantially. This variation suggests that the instrumental variables employed are relevant to address potential endogeneity.

Moreover, Table D1 in Appendix D presents the results of the first stage of the IV probit model estimation. As expected, our instruments show a significant correlation with the secularity variables. Additionally, the p-values from the Anderson and Cragg-Donald tests allow us to reject the null hypothesis of under-identification or weak identification. Furthermore, we cannot reject the over-identification hypothesis of the Sargan test, confirming that our chosen instruments are valid.

Table 10: Addressing causality: the instrumental-variable probit model

	(1)	(2)	(3)	(4)
Individual secularity	0.402*** (0.020)	0.259*** (0.044)		
Socio-political secularity			0.275*** (0.016)	0.168*** (0.030)
Age		-0.008*** (0.003)		-0.020*** (0.001)
Gender				
Female		-0.226*** (0.043)		-0.306*** (0.034)
Location				
Rural		-0.140*** (0.034)		-0.179*** (0.034)
Refugee camp		0.144 (0.121)		0.217 (0.121)
Employment status				
Employed		0.069** (0.032)		0.036 (0.033)
Education				
Secondary		0.180*** (0.038)		0.049 (0.038)
University		0.347*** (0.043)		0.171*** (0.044)
Income				
Above median		-0.020 (0.031)		-0.051 (0.031)
Government satisfaction		-0.061*** (0.007)		-0.062*** (0.007)
Internet use		0.053*** (0.010)		0.050*** (0.010)
Observations	9,580	9,580	9,580	9,580

Note: Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1. All specifications include country fixed effects.

7 Concluding remarks

The contribution of this paper to the literature is threefold. First, we developed a comprehensive theoretical framework to shed light on why secular individuals are more inclined to migrate to secular countries than their religious counterparts. This framework also differentiates between various individual and socio-political forms of secularity and examined their effects based on individuals' positions within majority or minority faith communities. It also explored the mechanisms linking secularity to different modes of migration.

Second, at the methodological level, we constructed multidimensional indicators of secularity that capture both behavioral distancing from religious practices and normative perceptions of religion's role in the economic, political, and social spheres. By leveraging Multiple Correspondence Analysis (MCA), we overcome the limitations of prior approaches that relied on unidimensional religiosity measures or methods not properly tailored to handle categorical variables.

Third, our empirical analysis reveals that among Muslims, all forms of secularity are positively associated with a higher likelihood of migration. In contrast, among Christians, only individual secularity significantly correlates with increased migration intentions. This can be explained by the fact that, in minority contexts, individuals, regardless of their degree of religiosity, may perceive secular governance as a structure that more effectively ensures the protection of their rights and freedoms. In addition, we showed that secular migrants predominantly target secularized Western destinations, and in most cases, secularity influences regular rather than irregular migration pathways. Our findings also open new avenues for research on religiously unaffiliated individuals, highlighting that this small yet understudied segment of the Arab population exhibits a markedly higher propensity to migrate, including through irregular means.

Despite the robustness of our results, three constraints warrant caution. First, self-reported measures of secularity are prone to social-desirability bias, which can obscure true

levels of religiosity. In addition, these indicators do not measure religious beliefs. Second, the exclusive reliance on the cross-sectional fifth wave of the Arab Barometer restricts longitudinal inference. Third, the survey's broad religious categories do not capture the region's rich ethno-religious diversity—such as Shia sub-traditions, Alawites, Druze and Yezidis—thereby limiting the generalisability of our findings. Addressing these issues would substantially refine future analyses of religion and migration in the Arab world.

In summary, our results suggest that secularity is a key determinant of migration dynamics. Contrary to the increasingly widespread "great replacement" theory, which posits that European culture is being supplanted by the culture of migrants from outside Europe (Ekman, 2022), our findings indicate that the integration of populations from Arab countries is likely to be relatively smooth, largely due to an ideological convergence between secular individuals from the Arab world and the predominantly secular cultures of the destination countries.

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8 Appendices

Appendix A : Migrants' favorite destinations by country

Table A1: Top 5 most popular destinations

Origin	Ranking				
	1 st	2 nd	3 rd	4 th	5 th
Algeria	France	Canada	Germany	Spain	Italy
Egypt	United Arab Emirates (UAE)	Kuwait	Saudi Arabia	United States (US)	Italy
Iraq	Turkey	Germany	US	UAE	Other Western European countries
Jordan	US	Canada	Turkey	UAE	Qatar
Lebanon	Canada	US	France	Germany	Eastern Europe
Libya	Italy	Canada	Germany	Egypt	US
Morocco	France	Italy	Spain	Canada	Germany
Palestine	Turkey	US	Canada	Germany	Eastern Europe
Sudan	Qatar	Saudi Arabia	US	France	UAE
Tunisia	France	Italy	Canada	Germany	Eastern Europe
Yemen	Saudi Arabia	Turkey	US	Qatar	Egypt

Figure B1: Willingness to migrate to a Western destination

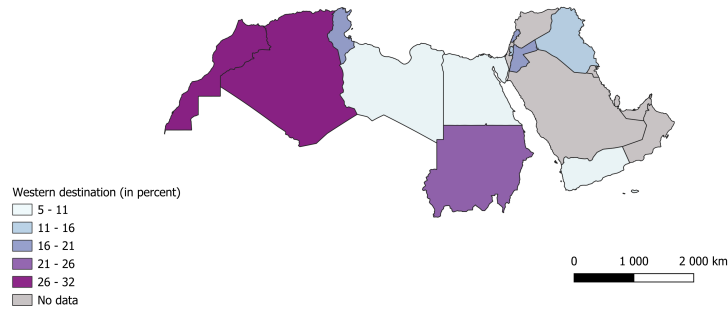
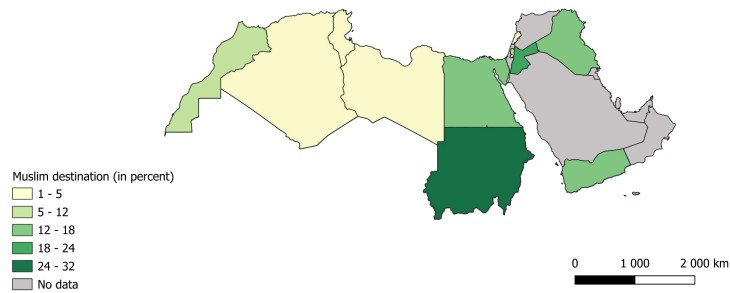


Figure A2: Willingness to migrate to a Muslim destination



Appendix B : Components of the secularity scores and their distribution

Figure B1: Variables included in individual secularity indicator

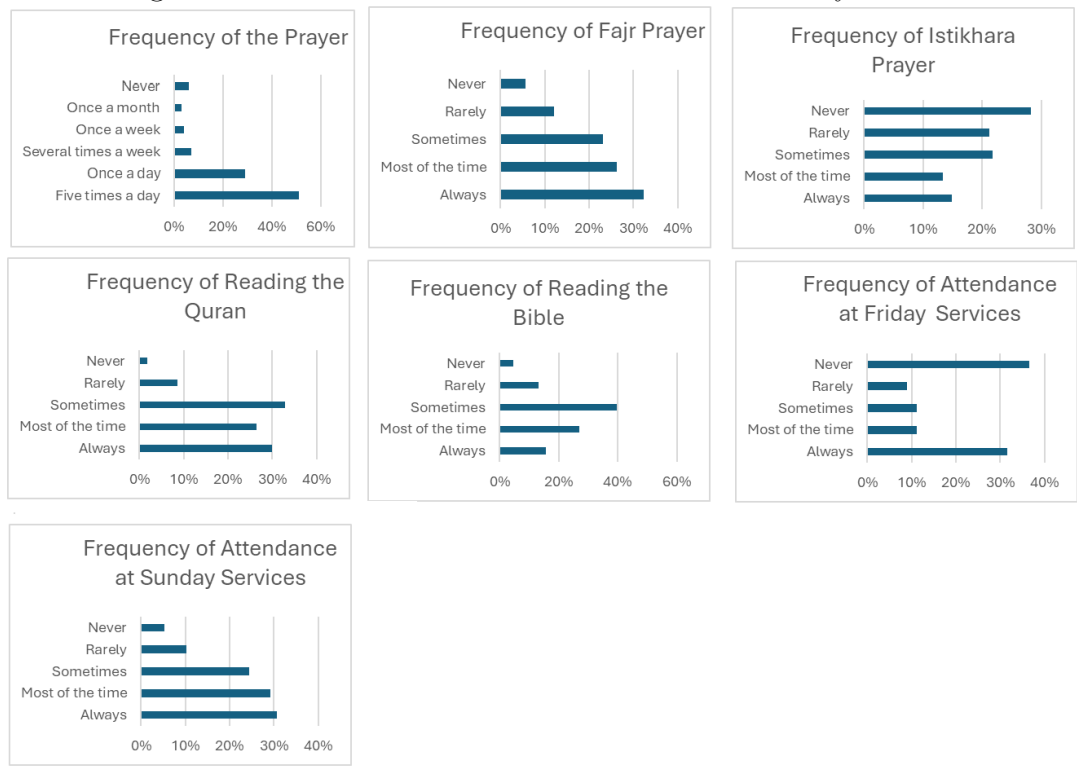
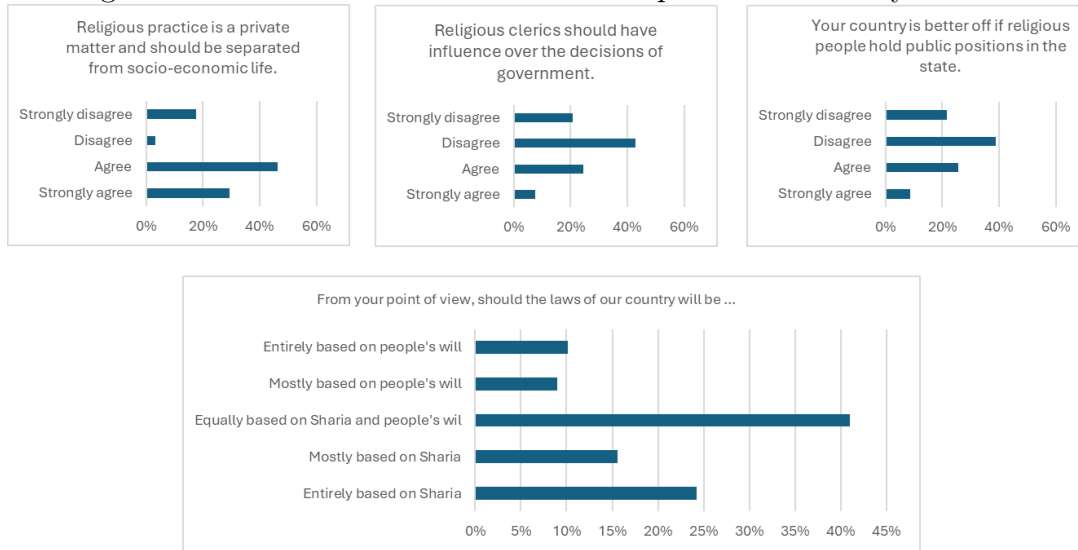


Figure B2: Variables included in the socio-political secularity indicator



Appendix C : Descriptive statistics

Table C1: Descriptive statistics

Variable	N	Mean	Std. Dev.	Min.	Max.
Age	9,597	38.365	14.680	17	110
Gender	9,597	1.510	0.500	1	2
Income Median	9,597	1.537	0.499	1	2
Employment	9,597	1.374	0.484	1	2
Education	9,597	1.912	0.785	1	3
Government Satisfaction	9,597	3.797	2.840	0	10
Rural-Urban	9,597	1.345	0.503	1	3
Internet Use	9,597	4.223	2.098	1	6

Appendix D : First step of the instrumental variable estimation and endogeneity tests

Table D1: First step of the instrumental variable estimation and endogeneity tests

	(1)	(2)	(3)	(4)
Charity vs taxation as the best redistribution system	0.601*** (0.017)	0.486*** (0.012)	0.308*** (0.016)	0.276*** (0.015)
Trust in religious leaders	0.348*** (0.029)	0.242*** (0.021)	0.191*** (0.028)	0.153*** (0.027)
Control variables	Yes	Yes	Yes	Yes
Anderson test (p-value)	0.000	0.000	0.000	0.000
Cragg-Donald (p-value)	0.000	0.000	0.000	0.000
Sargan test (p-value)	0.865	0.803	0.769	0.670
Observations	9,580	9,580	9,580	9,580

Appendix E : Robustness checks based on Wave 7 and Wave 8 of the Arab Barometer survey

Religious practices and the role of religion in Arab societies have been the focus of extensive analysis in the Arab Barometer surveys. However, data on these dimensions have not been collected systematically across all waves. Wave 5 currently offers the most comprehensive and usable dataset for this purpose. In contrast, Wave 6—conducted during the Covid-19 pandemic—shifted its focus to how individuals sought religious comfort during a time of crisis. This thematic reorientation makes it unsuitable for computing our secularity indicators. Wave 4, being older, does not enable the construction of an individual secularity index, as it only addresses the reading of sacred texts and the practice of prayer. Waves 7 and 8 include also variables related to the Fajr prayer, but still omit attendance at religious services. Similarly, the practice of the Al Istikhara prayer is not mentioned in these two waves. Nonetheless, a politico-social secularity index remains estimable, as the key relevant variables are broadly available. However, in wave 7, these questions are not addressed to

all countries. And in wave 8, only sub-samples of the population answered these specific points. In addition, we cannot perform a subgroup analysis by religious affiliation for these two waves, because the number of non-Muslim respondents is far too small to yield reliable estimates. The results are presented in the table below.

Table E1: Regression results across Wave VII and Wave VIII

	Wave VII				Wave VIII			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Individual secularity	0.083*** (0.004)	0.039*** (0.005)			0.097*** (0.006)	0.053*** (0.006)		
Socio-political secularity			0.030*** (0.005)	0.022*** (0.006)			0.022*** (0.004)	0.011** (0.005)
Age		-0.020*** (0.001)		-0.021*** (0.001)		-0.022*** (0.001)		-0.024*** (0.001)
Gender								
Female		-0.269*** (0.023)		-0.282*** (0.033)		-0.241*** (0.028)		-0.289*** (0.027)
Location								
Rural		-0.126*** (0.024)		-0.109*** (0.035)		-0.172*** (0.031)		-0.154*** (0.031)
Refugee camp		0.006 (0.085)		0.001 (0.124)		0.202* (0.117)		0.182 (0.120)
Employment status								
Employed		-0.024 (0.024)		-0.005 (0.034)		0.063** (0.029)		0.069** (0.028)
Education								
Secondary		0.041 (0.027)		0.041 (0.038)		0.066 (0.030)		0.052* (0.030)
University		0.193*** (0.031)		0.211*** (0.044)		0.160 (0.035)		0.130*** (0.035)
Income								
Above median		-0.135*** (0.025)		-0.151*** (0.037)		-0.098** (0.035)		-0.127*** (0.034)
Internet use		0.106*** (0.007)		0.097*** (0.009)		0.088*** (0.009)		0.086*** (0.009)
Observations	19,475	18,049	9,289	8,614	12,812	12,217	12,804	12,213

Note: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Columns (1)-(4) report the estimates for Wave 7, whereas columns (5)-(8) display the corresponding results for Wave 8. Every specification includes country fixed effects. Across both waves, the findings are consistent with the main results of the paper: higher levels of individual and socio-political secularity are robustly and significantly associated with a greater propensity to migrate.