

Fertility patterns of native and migrant Muslims in Europe

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This paper presents (as part of a large global project on demography and religion) unique findings on fertility differentials between Muslims and non-Muslims in Europe, separating between native and immigrant European Muslim populations. For instance, in Romania, Bulgaria, Georgia and Ukraine the greater fertility of Muslims (who tends to be natives) ranges from 0 to 0.4 children per woman; and the Muslim populations have below replacement fertility (ranging from 1.4 to 1.9 children per woman). In Germany and Italy Muslims have 0.5 to 0.6 children more (with a TFR of 1.8 to 1.9 children) than non-Muslims; while in Norway, Austria, Finland, Ireland, the UK and the Netherlands, the fertility discrepancies are higher (from 1 to 1.3 children) and while non-Muslim fertility levels are below replacement, Muslim TFR is relatively high (ranging from 2.4 to 3.3 children).

Extended draft

Several studies have documented that Muslims in many European countries tend to have greater fertility than individuals belonging to other denominations (Westoff and Frejka 2007, Goujon et al. 2007, PEW 2011). A number of different factors may possibly explain these childbearing differences. Potential explanations include pro-natal statements in Islamic religious scriptures and a greater degree of religiosity of Muslims. Poor socio-economic status (low economic participation rates and educational levels) – particularly among women, generally low socio-economic development and low opportunity costs, and markedly different traditions in terms of marriage timing and marital outcomes also play a role (Iannaccone 1992, Peach and Glebe 1995, McQuillan 2004, Lehrer 2004, Schmid and Kohls. 2009).

It is recognized that many Muslims are first generation migrants from high fertility countries of origin and that a greater duration of stay is likely to lead to gradual convergence in childbearing levels (Milewski 2010, Sobotka 2007). However, it is unclear whether fertility differentials between Muslims and non-Muslims will fully converge in the future. A way to shed some light on this issue is to compare the fertility of migrant and native Muslims in Europe. Many European Muslims are natives to their countries (such as the majority of Muslims in Kosovo, Macedonia or Bulgaria) and have resided in Europe since centuries. Others are natives to Europe but have migrated within Europe (for instance Albanians who moved to Germany or Italy). The current study will make an attempt to describe fertility dynamics of both native and migrant Muslims in Europe.

Europe has for a long period been dominated by Catholic, Protestant and Orthodox Christians, and from the 20th century also large shares of Unaffiliated. Europe is also home to large Muslim native populations and has received high levels of immigration in recent decades (many of which are Muslims from the Middle East, South Asia or North Africa). Europe is of particular interest as it is one of the world's richest regions, which to the extent that economic wellbeing with relatively high degrees of equality is affecting demographic change, may be indicative in terms of the fertility differentials observed also in other world regions.

The rapidly changing religious landscape in Europe is sometimes coinciding with social tension frequently with opposition to immigration, higher fertility and population growth among Muslims– also in Europe (even ahead of the 2008 financial crisis, Pew's global attitude survey (2007) showed that 68% of Europeans agreed that "We should further restrict and control immigration", which implies that Europe now has about as strict attitudes to migration as observed in other regions of the world (e.g., North America 70%, Middle East 67%, Asia 71%, Africa 74% and Latin America 71%).

A better understanding of religious variation in fertility dynamics is of interest per se, and is of relevance for improving understanding of population dynamics. Understanding group differences in age-specific fertility trends and the causes of this variation can allow us to better understand and foresee changes in overall fertility. Estimates of historic and present fertility differentials can improve the accuracy of demographic projection exercises and can allow us to improve scenarios for future fertility dynamics. We therefore describe differences in European populations of Muslims (migrant and native) and non-Muslims and focus on some reasons for variation in fertility between these groups.

Data

We estimated proportion of Muslim populations and TFR of Muslims in European countries using census, various survey and register data. In the next step we focus on three different cases we analyse in depth: Bulgaria (a country with a significant native Muslim minority), Greece (both native and immigrant Muslim populations) and Spain (a country experiencing significant immigration flows from Muslim countries during the past decade).

Bulgarian census 2001 is a rich source of information on socio-economic characteristics and fertility of Muslim and non-Muslim population in the country. In this country a question on religious affiliation was placed in the core questionnaire of the census.

Our estimates of native and immigrant Muslim populations in Greece are based on the latest available census undertaken in 2001. To identify immigrant Muslims we look at foreign-born population that has immigrated from predominantly Muslim countries. Unfortunately, question on religious affiliation was not asked in the census questionnaire and therefore we had to identify native Muslims in Greece using information from the previously published studies. Majority of Greek native Muslim population is resident in the region of Western Thrace (Anagnostou and Triandafyllidou 2007, Borou 2009) and we were able to identify predominantly Muslim counties (Kotzamanis, Agorastakis 2008). This group mostly consists of Turkish ethnic population. Whereas, migrant Muslims come from Albania, Turkey and Middle East, which makes to some extent similar to native Muslims in Greece.

In case of Spain, estimations of share of Muslims and fertility were based on data from Statistics Spain (INE): Municipality Registers 1996-2008 and National Immigrant Survey 2007, and from The Centro de Investigaciones Sociológicas (CIS): Barometro Autonomico 2005 and 2010. Because of lack of direct question on religious affiliation we use indirect technique based on information on country of birth.

Findings

Figure 1 shows the estimated Muslim shares in all European nations in 2010. Out of Europe's 49 countries, two are Muslim majority: Kosovo and Albania, while most European countries have relatively small population shares. Countries with more than 10% share of Muslims are home to historically settled Muslim minority (native), but the share of Muslim is between 5-7% in some western European countries that have been experiencing strong immigration from predominantly Muslim countries since the 1960s (for example France and the Netherlands).

Figure 2 shows the Muslim population share in European countries. As can be seen, the share of Muslims is greatest in the Balkans, South-Eastern European countries and Russia, but is also relatively high in parts of western European countries.

Figure 3 shows TFR for the Muslim and the non-Muslim population. As can be seen the Muslims tend to have greater fertility than the non-Muslims in most countries. However, in countries where Muslims are mainly natives, the fertility differences between Muslims and non-Muslims are much lower (on average native Muslim TFR is about 15% above the average TFR of the countries with native Muslim minority).

On average Muslims have about 40% higher fertility than the overall national levels (data for 24 countries). Average TFR of migrant Muslims in Europe (2.54 children per woman) is 52% higher than fertility of the countries they reside in and 54% higher than average TFR of native Muslims (1.66 children per woman).

Muslims (whether immigrant or native) tend to be employment-wise and educationally disadvantaged as we show further. Fertility differentials in Muslim and non-Muslim could be reduced by improving education of the Muslim population. More education means increased human capital and better chances at the labour market. An example for Bulgaria shows that the gap in Muslim and Non-Muslim fertility would decline from about 37% to about 22% if Muslim had the same educational attainment as the general population. Although we show this example only for one country at this point, in the next steps of our work we intend to include this information for more countries in with a sufficiently detailed data to perform this exercise.

Figure 1. Proportion of Muslims in European countries. Source: Census and survey data.

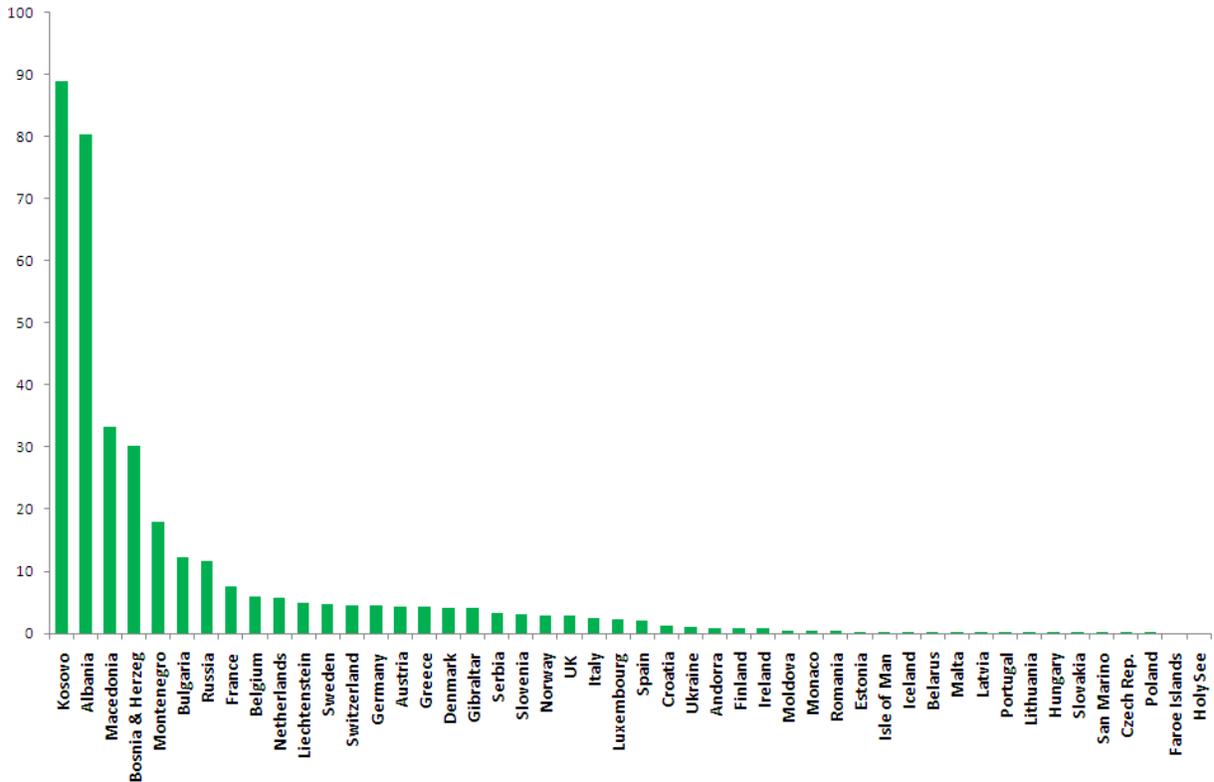


Figure 2. Muslim shares in Europe. Source: Pew (2011)

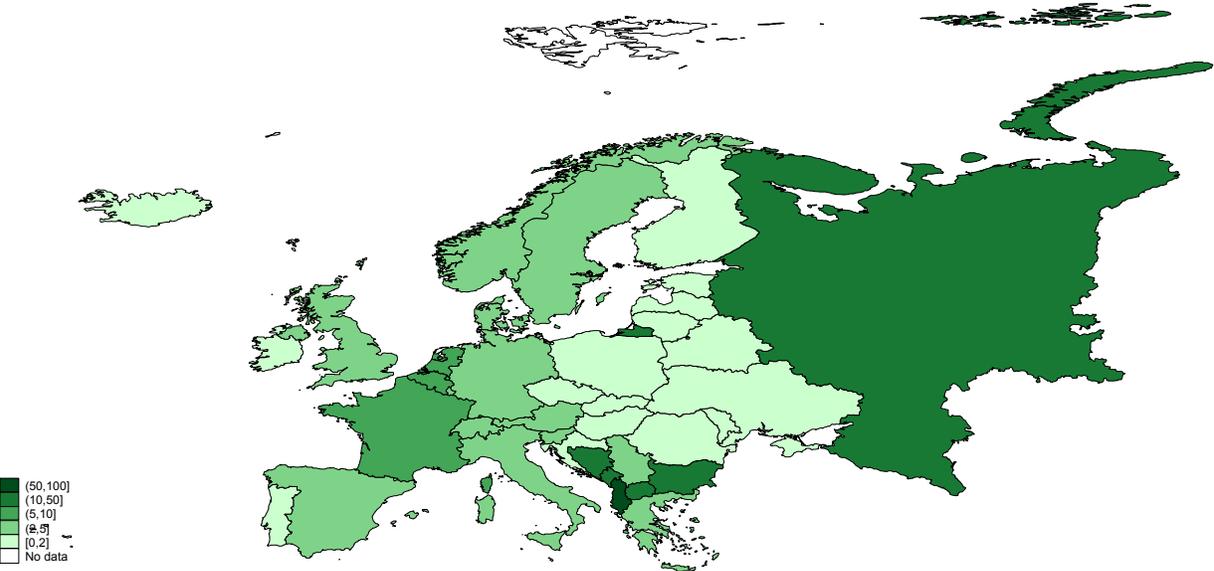
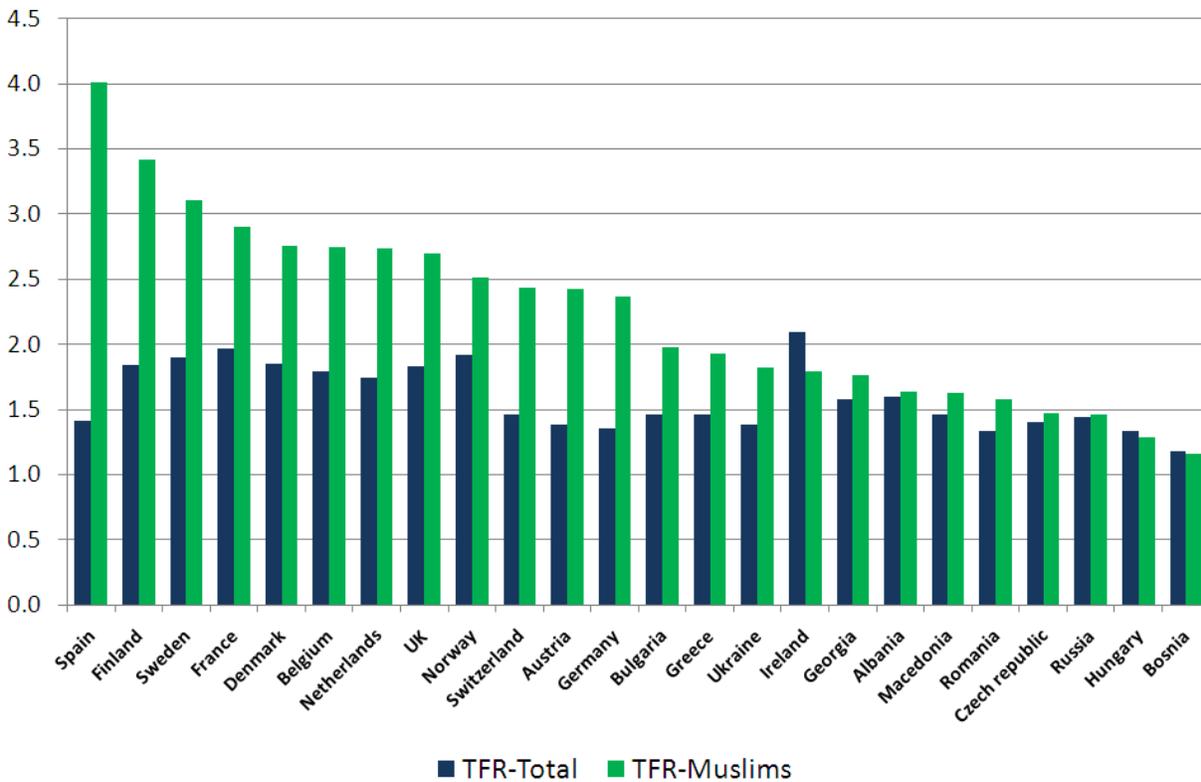


Figure 3. TFR for Muslims and non-Muslims in 24 countries. Source: Own estimates based on census and survey data.



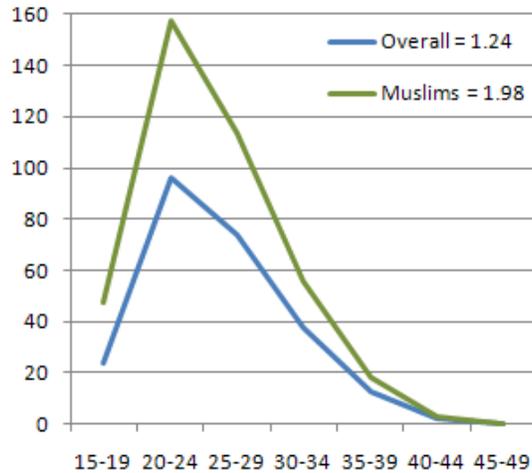
In our study we give special consideration to three countries; Bulgaria, Spain and Greece. In Bulgaria Muslims tend to be natives, in Spain Muslims tend to be recent immigrants and in Greece both native and immigrant Muslims reside. These “case-studies” may shed some light on whether the Muslim to non-Muslim fertility differentials are linked to duration-of-stay and migrant status or whether it is influence by other factors.

Bulgaria

In Bulgaria 12.2% of the entire population are Muslim. Bulgarian Muslims originate from various ethnicities – although majority of them are of Turkish origin (74%), they are also of Roma, Bulgarian or other ethnicity.

Although both groups have below replacement fertility, the TFR of Muslims is considerably higher, see figure 4.

Figure 4. Fertility differentials in Bulgaria by age. Source: GGS 2004.



Taking into account education, we find that low-educated Muslim women have similar fertility outcomes as low-educated Non-Muslims (Figure 5). About 2/3 of Muslims in Bulgaria (aged 20-59 years) have primary or lower education. Only 1/3 attained at least lower secondary education, compared to 82% of non-Muslims (Figure 7). According to census 2001, TFR of better-educated Muslim women (1.28 children per woman) was 25% lower than those with low education (1.61 children per woman) (Figure 6). Under the condition Muslims in Bulgaria were as educated as the non-Muslim population, their TFR would decline to 1.34 children per woman and the differential to non-Muslim population would decrease from the current 37% to 22%. This exercise quantifies the importance education and shows that better social inclusion can reduce the gap in Muslim and non-Muslim fertility. It also shows that disadvantaged situation on Muslims is one of the explanations of their higher fertility.

Figure 5. Average children ever born of women aged 40-44 by religion and education. Source: Bulgarian census 2001.

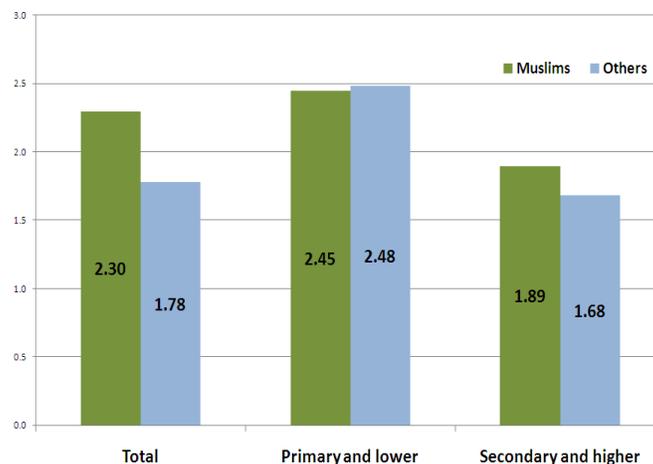
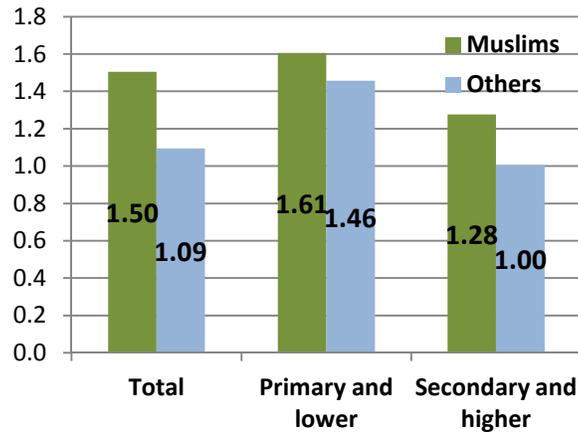
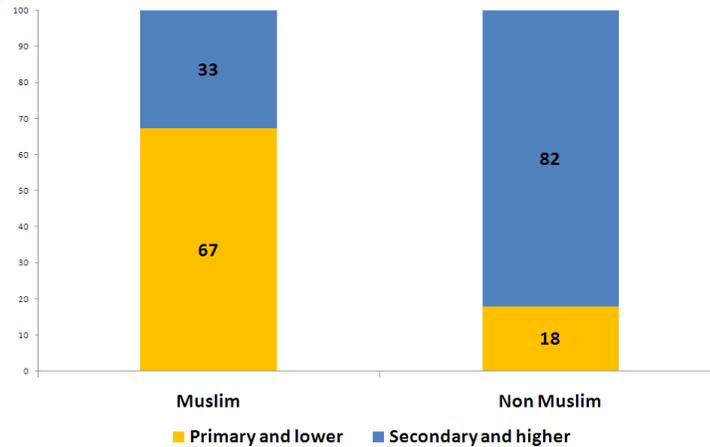


Figure 6. Total Fertility Rates by religion in Bulgaria in 2001



Source: Own estimates based on census 2001

Figure 7: Education by religion (population 20-59). Source: Bulgarian census 2001.

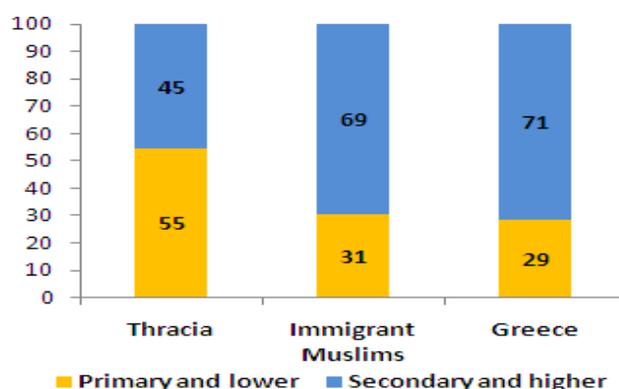


Greece

Greece is home to both native and immigrant Muslim populations. Majority of Muslim immigrants in Greece arrived from Albania and Turkey which means they are more similar to native Muslims in Greece than to immigrant Muslim populations resident in western European countries. Native Muslims in Greece are mostly Turks, Pomaks (Slavic Muslims) and Roma and most of them reside in Western Thrace (a region close to Bulgarian and Turkish borders located in North-East of the country) (Anagnostou and Triandafyllidou 2007, Borou 2009). Most Greek Muslims left for Turkey after 1920 with the exception of those in Western Trace. Muslim minority in Greece faced marginalization and barriers to education, property ownership etc. until the 1990s (Anagnostou 2007, Bousiakou 2007). As a result, about 80% of native Muslims resident in predominantly Muslim counties in Rodope and

Xanthi region have primary or lower education and only 15-20 % attained at least lower secondary level. Population in Thrace is in general lower educated than overall population of Greece, as shown in Figure 8. However, it is striking that even immigrant Muslims in Greece are better educated than the native minority.

Figure 8. Educational attainment by religion (population 20-59) Source: Greek census 2001.



Note: Estimate for native Muslims is based on calculations for Rodope and Xanthi region, labelled Thrace in this graphic.

Educational differentials are reflected in fertility outcomes of Muslims in Greece. Estimated TFR of immigrant Muslims in Greece is somewhat lower (1.75 children per woman) than the rate for native Muslims from Rodope and Xanthi region (1.78 and 2.1 children per woman) (Figure XX). Muslim fertility was on average about 40% higher than the overall TFR in Greece in 2001. Figure 9 shows that Muslim, be it native or immigrant, form families and have children at much lower age compared to the overall population. Teen-age fertility rates of Muslim women are 4-times higher than the Greek average. Longer educational enrolment, better education and equal chances at the labour market can help reducing this difference. Data from the Greek census support this hypothesis. Looking at fertility outcomes of women aged 40-44 (Figure 10) we can see that those women in Rodope and Xanthi region who had at least secondary education had on average 28% lower fertility than their low educated counterparts. For immigrant Muslims the difference was somewhat lower, but we can observe that higher education had effect on their fertility outcomes as well. Our results show that higher fertility of Muslims are associated with their socio-economic status and emphasise the importance of better integration.

Figure 9. Estimated fertility differentials by religion and age. Source: Greek census 2001.

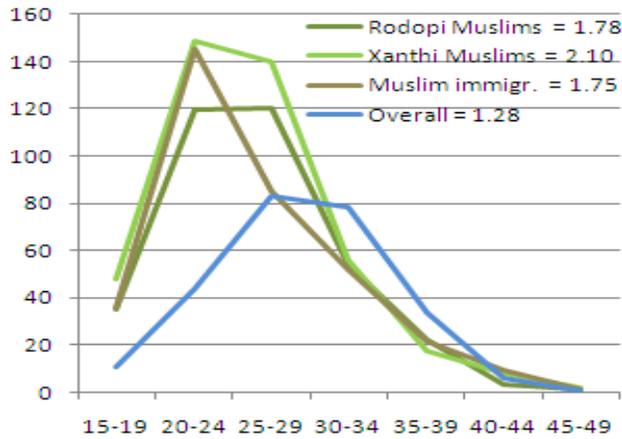
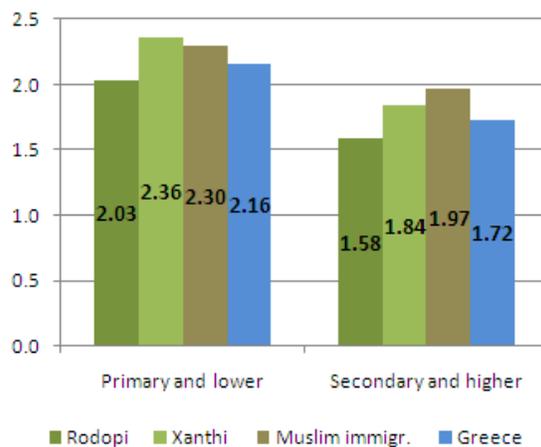


Figure 10. Estimated Average children ever born by religion and education (women 40-44). Source: Greek census 2001.



Spain

According to the Spanish migrant register, Muslims comprised 2.12% of the Spanish population in 2010. Nearly 90% arrived from Morocco (according to the National Immigrant Survey 2007 and INE data on resident population by country of birth) and among others Algerians and Pakistanis were more represented. High fertility if immigrants in Spain provoked a number of studies (see for instance Bledsoe et al. 2005, Roig Vila and Castro Martin 2007). One of the consistent findings is evidence of very high fertility of Moroccans women in Spain (about 4 children per woman). Using data from Municipality registers we find similarly high TFR among immigrant Muslims in Spain (ranging between about 3.53 and 4.03 children per women in 1996-2008 and without a clear trend towards lower levels). One of the common explanations is the fact that immigration to Spain is very recent and, therefore, TFR is distorted because of high fertility rates in the first years after immigration (Toulemon 2004).

However, education and cultural norms may play a role as well. Using data from the National Immigrant Survey 2007 we can compare Muslim migrants to other migrants (originating mostly from other European as well as Latin American countries). We find that Muslim immigrants are poorly educated (only 35% have at least lower secondary education compared to 79% of other

immigrants (aged 20-59 years)), they are more likely to be unemployed (14.3% compared to 8.3% for other migrants, men aged 20-59 years) and women tend to be economically inactive and stay in household (77,3% compared to 51,3% other migrant women aged 20-59). It is likely that most Muslim women come to Spain through family reunification and their role is the one of a homemaker. Traditional gender roles and high fertility desires these migrants bring from their home countries are likely to play a role in their fertility behaviour. This can be particularly true for low educated Muslim women. Figure 12 shows that low educated Muslim women are those with high fertility outcomes, while those with more education are similar to other migrants with comparable educational attainment. The fact that most Muslim immigrants in Spain are poorly education is one of the factors influencing their extremely high fertility even in comparison to other immigrants.

Figure 11. Education by religion (population 20-59). Source: National Immigrant Survey 2007, INE.

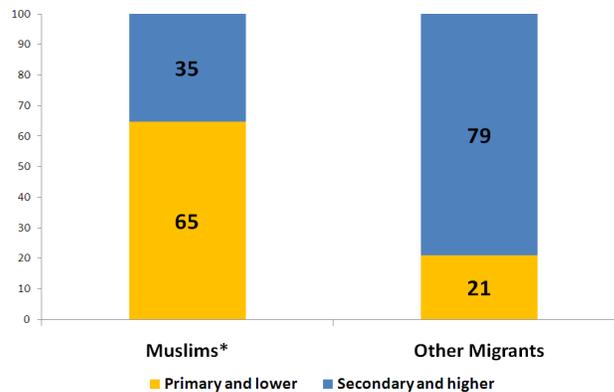
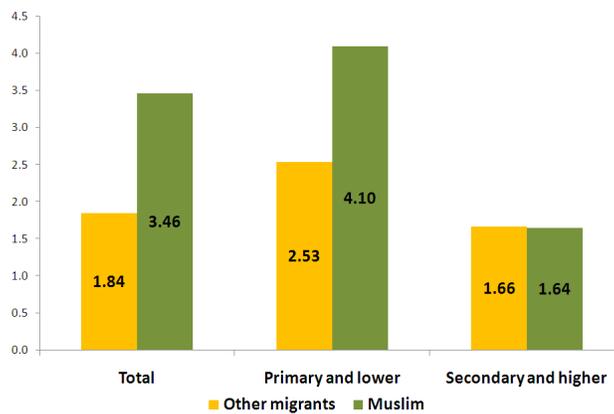


Figure 12. Average children ever born to immigrants in Spain by educational attainment (women aged 40-44). Source: National Immigrant Survey 2007, INE.



Conclusions

Religion can matter for fertility in Europe. Religious groups have been shown to vary greatly even in similar contexts even in egalitarian parts of Europe such as in Finland, where Finnas (1991) find that fertility of one large Christian denomination had a TFR more than three times greater than that of other groups in the same region. As income and occupational differences in fertility may have decreased in recent decades (e.g., Skirbekk 2008) differences along religious lines may have become more important. Nevertheless, the most important reason for why religion matters for average fertility including in Europe is likely to be certain aspects of societal development, such as female schooling and employment level differences between religious groups.

We compare fertility of Muslims (Native & Immigrant) and Non-Muslims in Europe. Our estimates of TFR (from censuses and surveys) find that although European Muslims have significantly greater fertility in most countries, the differentials are larger in countries where most Muslims are migrants themselves or descendants from migrants arriving since the 1960s. For instance, in Romania, Bulgaria, Georgia and Ukraine the greater fertility of Muslims ranges from 0 to 0.4 children; and also all the Muslim populations have below replacement fertility (ranging from 1.4 to 1.9 children). In Germany and Italy Muslims have 0.5 to 0.6 children more (with a TFR of 1.8 to 1.9 children) than non-Muslims; while in Norway, Austria, Finland, Ireland, the UK and the Netherlands, the fertility discrepancies are higher (from 1 to 1.3 children) and while non-Muslim fertility levels are below replacement, Muslim TFR is relatively high (ranging from 2.4 to 3.3 children).

We find significant differences both in level and timing of fertility between Muslims and Non-Muslims; also between Muslim's subpopulations. Average TFR of migrant Muslims in Europe (2.54 children per woman) is 52% higher than fertility of the countries they reside in and 54% higher than average TFR of native Muslims (1.66 children per woman). Fertility patterns and timing of fertility vary greatly as well.

Many factors can play a role in explaining the fertility differences between migrants. Country of origin is important - many migrants come from high fertility settings with traditional gender roles. Cultural factors, differentials in the degree of religiosity and parallel societies can be important.

Duration of stay is very important (Toulemon 2004), with more recent migrants having higher fertility. In countries with historically settled Muslim minority populations, fertility differences are lower, but there is still a fertility gap.

If we control by economic activity status and education, the fertility differences are much lower. For instance, Muslim women with at least secondary education have similarly high fertility outcomes of about 1.6 children per women as other non-Muslim migrants resident in Spain, while fertility of low educated Muslim women is 50% higher compared to other low educated migrants. Similarly, native and immigrant Muslim women in Greece have

lower fertility than their low educated counterparts and the fertility differential to native women is smaller. Hence, by improving the social status of different groups, most of the differences in growth rates are likely diminish or reduce at least. Greater social, economic and educational integration among Muslims in Europe is likely to reduce differences in childbearing dynamics.

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