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## Abstract

Theories suggesting a unilineal development toward secularization have been challenged by research showing diverse patterns of religious changes across contexts. In Europe, the relevant research has been limited, lacking representative data for minority groups, especially in highly secular and historically religiously homogeneous Nordic settings. We offer a pioneering study using national register data to study the religious changes in Finland over the past five decades. Finland has two native ethnolinguistic groups—Finnish and Swedish speakers—which share the same religious tradition and offer a unique study context. We use register data with longitudinal information on every individual's religious affiliation to investigate whether the two groups differ in this respect, exploring the possible mechanisms behind this. We find that the Swedish-speaking population is consistently more affiliated with the National Lutheran Church than the Finnish-speaking population. The Swedish-speaking group in Finland has a higher National Lutheran Church affiliation rate, despite being in some aspects socioeconomically advantaged in Finnish society, which is contrary to the expectation of modernization theory. The higher affiliation rate of Swedish speakers can be partly explained by lower levels of internal migration, possibly driven by stronger community attachment. We also find less socioeconomic differences in religious affiliation among Swedish speakers.

**Keywords:** register-based research on religion, divergence of secularization, modernization, community attachment, Swedish-speaking Finns



## 1. Introduction

Over the past three decades, research on secularization and postsecularization trends in the West has been comprehensive. On the one hand, it is generally believed that most European societies have reached or are approaching stable secularity, with the Nordic countries being the most secular with very low levels of religious beliefs and practices (Voas, 2009; Voas & Doebler, 2011). On the other hand, there has been criticism against the unilineal framework of existing secularization theories. Those theories tend to depict secularization as trend that will be expressed similarly across different contexts. The mechanisms that are argued to explain secularization such as modern education, economic security or individualization, are also seen as applicable across contexts (De Graaf, 2013; Stolz, 2020). Yet, research often shows deviation to such a generalized pattern between or within countries. In many contexts, there has been evidence of denominational, ethnic, and regional differences regarding religiosity within single countries, with some subgroups of the population remaining relatively more religious. Notable examples are Muslim immigrants in Europe and Catholics in Canada (Müller, 2020; Stolz et al., 2021; Wilkins-Laflamme, 2016).

It is often argued that ethnic or religious minorities have retained stronger religious traditions during growing secularization because religion can play a vital role in maintaining a community's identity, cultural symbols, and practices (Brown et al., 2013; Lechner, 1996; Taylor et al., 1996; Wilkins-Laflamme, 2016). However, it is also usually the case that the same groups are socioeconomically more marginalized groups in society, who may face discrimination, such as African and Hispanic Americans and Muslim immigrants in Europe (Cadge & Howard Ecklund, 2007; van Tubergen, 2007; Voas & Fleischmann, 2012). In this regard, the role of cultural identity in maintaining the religiosity of minority groups is often intertwined with socioeconomic status, early socialization in the country of origin, and discrimination. Beyond these interrelations, the literature has primarily focused on comparisons of natives and immigrants in Europe, or native-born populations from different religious traditions, such as White and African Americans in the US or Protestants and Catholics in European countries. From a European perspective, the research is scant when comparing the religiosity of native groups, especially minorities sharing similar religious traditions. Data limitations are a crucial factor that have undermined these studies. Most European countries are highly secular and, until recently, ethnically homogeneous. Thus, the religiosity of minority groups can hardly be covered with accuracy and representativeness by regular survey programs, which generally have limited sample sizes.

In the present paper, we take advantage of the particular context in Finland to investigate the religious affiliation of two ethnolinguistic groups: Swedish-speaking and Finnish-speaking Finns<sup>1</sup>. Finnish and Swedish are co-official languages in Finland. Around 5% of the population are registered as having Swedish as their unique mother tongue. In addition, Swedish speakers hold a strong ethnic minority identity that differs from the Finnish-speaking majority (McRae, 1999). For both groups, the Evangelical Lutheran Church of Finland is the predominant religious denomination. In terms of socioeconomic status, Swedish speakers in Finland have some educational and labor market advantages over Finnish speakers (Saarela, 2006; Saarela & Finnäs, 2003a), which could lead to the expectation that they would be more secular, at least according to the modernization argument (Inglehart 1997; Ruiter and van Tubergen 2009). However, it is also known that Swedish speakers have strong cohesion in and attachment to their ethnic community (Nygqvist et al., 2008; Reini & Saarela, 2017), which may predict that they could be more religious (Berger 2011; Wilkins-Laflamme 2016). Hence, this case is exceptional in that we can compare two ethnic groups that are both native and share the same religious tradition, and where the minority is not socially or economically deprived. Moreover, we deploy the unique religious affiliation register available in Finland, which documents the congregation of each citizen of the entire population from 1971 to 2020. These data can provide a comprehensive picture of the religious dynamics in highly secular Finland, accounting even for small minority groups. To the best of our knowledge, the present study is the first to use population-level administrative data to study trends in religious affiliation.

We present the trends of religious affiliation for Swedish and Finnish speakers in Finland, further examining the trends by denomination, cohort, region, and socioeconomic status. We show that, despite the socioeconomic advantage, the Swedish-speaking minority population has constantly had higher levels of religious affiliation compared with the Finnish-speaking majority over the past five decades, and the difference has increased over time. We find higher affiliation rates among Swedish speakers than Finnish speakers in all socioeconomic groups. These patterns are mainly attributed to a higher affiliation with the Evangelical Lutheran Church among Swedish speakers. Swedish speakers' stronger attachment to their home community explains part of their higher affiliation rate with the National Lutheran Church, but this mediating effect is modest.

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<sup>1</sup> English usage of the ethnolinguistic terms in Finland are generally inconsistently applied. In the current study, Finns refer to all nationals in Finland, Finnish speakers to the ethnolinguistic group registered with Finnish as their unique mother tongue, and Swedish speakers to the ethnolinguistic group registered with Swedish as their unique mother tongue.

## **2. Research context and literature review**

### **2.1. Ethnicity and religion in Finland**

The Swedish-speaking community in Finland has a long history, dating back to the Swedish rule over Finland that started in the thirteenth century. For a long period, Swedish was the administrative language spoken among the elites, but it was also the everyday language of a substantial part of the population living in the western half of contemporary Finland. Finland became part of Russia in 1809, and after the country's independence in 1917, both Swedish and Finnish have been designated as the official languages in Finland<sup>2</sup>. Although bilingualism is common, particularly among the registered Swedish speakers, a number of institutions have been established for preserving the Swedish language. From a comparative perspective, there are few political or other conflicts between the two ethnolinguistic groups (McRae 1999; Obućina and Saarela 2020). The Swedish-speaking population in Finland has always lived concentrated on the western and southern coasts—as well as on the semi-autonomous Åland Islands (Saarela, 2021). Ethnolinguistic identity has persisted over generations. Inter-marriage between the groups has been frequent, and during the past four decades, interethnic couples have been more likely to register their children as having a Swedish mother tongue rather than Finnish, especially when the mother is a Swedish speaker (Obućina & Saarela, 2020; Saarela et al., 2020).

Finland has had two co-official national churches since its independence: the Evangelical Lutheran Church of Finland and the Orthodox Church of Finland. They are equivalent to state churches in other Nordic countries, enjoying privileged status and holding important ceremonial and administrative roles, such as marriage and taxation. This is especially the case for the National Lutheran Church, to which the majority of the country's population still belongs. From the perspective of religious market theory (Stark & Finke, 2000), the National Lutheran Church can be regarded as a “religious monopoly,” which is the state-sponsored privilege and dominance of one religious denomination. According to the religious market theory, such monopoly would impose an oppressive negative image to the denomination, making it decline drastically once the privilege is weakened by individualization, deregulation and religious pluralization (Stark & Finke, 2000). The Orthodox Church, representing only about 1% of the population, does not have such monopoly status, despite being a co-national

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<sup>2</sup> The two languages are very different and even come from two unrelated language families.

church. The Swedish-speaking minority has its own diocese within the National Lutheran Church, which operates across Swedish-speaking regions (Holm, 1991).

Like the other Nordic countries, Finland is highly secular, with only 30% of the population believing in God and less than 10% attending services regularly (Taira, 2017). The share of the population affiliated with the National Lutheran Church has decreased from over 90% in the 1980s to less than 70% by 2020. Most are nominal members without a strong religious commitment; so instead, it is likely that members find more meaning in the traditions that the church represent (Iversen 2006). The main reasons for people leaving the National Lutheran Church include not sharing values and beliefs, dissatisfaction with the church's position on morality issues, and avoidance of paying church taxes (Äystö et al. 2022; Niemelä 2015). At the same time, many minority religions, including the national Orthodox Church, have remained stable and have even somewhat grown in size. This development partly reflects increasing international migration to Finland but also that people with strong religious beliefs often find their identity within smaller denominations as being characterized by greater religiosity among their members when compared with those in the National Lutheran Church.

## **2.2. Socioeconomic differences and religious affiliation**

European societies have drastically secularized in the postwar era (Voas, 2009; Voas & Doebler, 2011). The most widely acknowledged explanation for secularization is found in the broad set of sociological theories that together can be referred to as modernization theory. In premodern societies, religion was often an omnipotent institution that not only provided moral and spiritual guidance, but that also dominated people's worldviews and social relations. With modernization, many of the functional needs that religion fulfilled in traditional societies have been gradually replaced by modern science, the market economy, and the welfare states (Ruiter & van Tubergen, 2009). People who grow up in economic security and prosperity are less likely to be shaped by traditional and religious norms that regulate interpersonal relations (Inglehart, 1997). Similarly, education transforms the way of thinking from a religious worldview to a rational scientific worldview, where explanations from the natural sciences often replace explanations from canonical books that describe how the world works (Stolz, 2020). Thus, unsurprisingly, across the globe, religiosity has been found to be negatively associated with socioeconomic status (Hungerman, 2014; Norris & Inglehart, 2004; Ruiter & de Graaf, 2006; Ruiter & van Tubergen, 2009). Hence, people who remain more religious are more likely to be disadvantaged people who do not take part fully in modern institutions and are more likely to

rely on the spiritual and social supports that religious beliefs and organizations provide. Together with other Nordic countries, Finland is, in nearly all aspects, a highly modernized society. The people in Finland largely embrace the values and institutions associated with modernization, living in a society with high levels of economic development, a strong universalistic welfare state that provides social benefits and free education, gender-egalitarian values, and a high level of trust in public institutions, experts, and the natural sciences, all of which correspond to a high extent of secularity (Furseth 2017; Norris and Inglehart 2004; Ruiter and van Tubergen 2009).

Previous research has documented that the Swedish-speaking population has a socioeconomic advantage over the Finnish-speaking population, particularly in terms of education, but to some extent also in the areas of employment, income, and wealth, although the regional variation is considerable (Härtull & Saarela, 2021; Saarela, 2006; Saarela & Finnäs, 2003a, 2003b, 2004). These ethnolinguistic differentials can be partly related to inheritance from previous generations as a legacy of historical Swedish-speaking elite. Because the Swedish speakers in Finland have a somewhat higher socioeconomic position than the Finnish speakers and broader access to higher education, modernization theory would predict that they are also more secular. This is particularly true, as higher education has been put forward as the dimension of modern life that is perhaps most strongly linked to secularization.

### **2.3. Community cohesion and religious affiliation**

Socioeconomic differentials are one side of the story regarding the religious affiliation of the two ethnolinguistic groups in Finland. A second relevant factor relates to community cohesion, which has been the focus of much research in the Swedish-speaking community in Finland. Many dimensions of the Swedish-speaking population in Finland have been related to expansive civil society and, thus, not to socioeconomic status. With a distinct identity, combined with well-functioning private, public, and third-sector infrastructures, Swedish speakers have maintained a strong and cohesive cultural community. It has also been argued that Swedish speakers have richer social capital than Finnish speakers in terms of civic participation, close contacts, and generalized trust (Hyyppä & Mäki, 2001; Nyqvist et al., 2008). They have lower divorce and separation rates (Finnäs 1997; Saarela and Finnäs 2014), lower internal migration rates (Saarela, 2006), and stronger intergenerational transmission of their ethnolinguistic identity (Obućina & Saarela, 2020; Saarela et al., 2020), which is also true

in mixed unions. The advantage of community cohesion has been argued to contribute to overall better health and lower mortality (Nyqvist et al., 2008; Saarela & Kolk, 2021).

The community cohesion perspective suggests a different prediction of the ethnolinguistic differential in religious membership in Finland. Mutual reinforcement between religious communities and group cohesion is a classic theme in the sociology of religion. Researchers such as Durkheim have suggested that religion contributes to a “moral community,” helping form within-group identification and maintain group cohesion and norms (Durkheim 1965 [1912]; 1979 [1897]). Thus, the maintenance of religious tradition is integrated as a part of the cultural preservation of a particular group, especially when it is in the minority (Brown et al., 2013; Wilkins-Laflamme, 2016). Furthermore, group homogeneity may strengthen religiosity in the community, suggesting that religion is an overarching “sacred canopy” that grounds itself on established authority (Berger (2011 [1967])). When a group or society becomes increasingly diverse, this authority will be damaged and may lead to its dissolution (Berger 2011 [1967]; Olson et al. 2020). In this sense, the more strongly self-identified and cohesive Swedish-speaking community in Finland may have higher church affiliation, especially in light of the fact that they maintain their own diocese within the umbrella of the National Lutheran Church (Holm, 1991). Religious identity can then be part of ethnolinguistic identity, which would resemble the case both in bilingual states such as Canada and many communities of international migrants in the West (Voas & Fleischmann, 2012; Wilkins-Laflamme, 2016). This argument is also consistent with the Swedish speakers’ health advantage because health is generally positively related to religiosity, and social capital may be an important underlying mechanism (Koenig et al., 2012). Arguments linking cultural cohesion with religion may be particularly salient in a Nordic context, where membership of the national church plays an important part in coming-of-age ceremonies such as confirmation and life course transitions such as weddings and funerals. These are all contexts that may be more strongly linked to social and cultural capital than church membership as a marker of a deep personal religiosity and faith. The fact that Swedish speakers maintain their own Swedish-language services through the National Lutheran Church may contribute to keeping their identity through church affiliation.

Community cohesion should consequently predict a higher level of religious affiliation among Swedish speakers when compared with Finnish speakers, while modernization would predict a lower level of religious affiliation. In light of these two contrasting theoretical expectations,



we propose two competing hypotheses on the ethnolinguistic difference of religious affiliation in Finland:

*Hypothesis 1: Swedish speakers are less religiously affiliated compared with Finnish speakers in Finland, which can be explained by their higher socioeconomic status and educational attainment.*

*Hypothesis 2: Swedish speakers are more religiously affiliated than Finnish speakers in Finland, which can be explained by the stronger community cohesion among Swedish speakers.*

### **3. Data and methodology**

#### **3.1. Finnish religious affiliation register data**

We use national administrative register data on religious affiliation collected by the government of Finland. The data are administrative records of each individual's congregation for the entire Finnish population, which has been provided by Statistics Finland. In Finland, all registered religious communities have the legal obligation to annually report a list of their members to the state authority. This is not limited to the two national churches, but also minor denominations, such as Islam, Catholicism, Jehovah's Witnesses, and so forth, that have ever registered under the Ministry of Education and Culture. Membership registration is crucial for the community to obtain state funding, which depends on the size of the community. The registration is also important for people who wish to be engaged in denomination-related activities, such as state-provided education on religious knowledge in public schools for the children. The registered information is longitudinal, measuring religious affiliation at the end of each calendar year. Our data cover the period from 1971 to 2018, and have been linked to other administrative data sources for information on mother tongue, socioeconomic status, mortality, municipality of residence, demographic variables, migration abroad, and so forth. To the best of our knowledge, these are the first and only comprehensive and national panel data with individual-level information on religious affiliation across a diverse set of religions over several decades. Finland is unique, also among other northern European countries, in that it maintain high-quality administrative registers on each individual's religious denomination beyond the State Church.

Our data contain the full population on the individual level and include sensitive information, especially on religious and ethnolinguistic affiliation, meaning that high-standard ethical practices in the field of registered-based research need to be respectfully followed<sup>3</sup>.

### 3.3. Measurements

**Religious affiliation.** The outcome variable in focus is individual-level religious affiliation (or nonaffiliation). The raw data document affiliation with detailed denominational information. For parsimony, we categorize them into the following: 1) National Lutheran Church, 2) nonaffiliated, and 3) other denominations. The National Lutheran Church is the main focus of the present paper because it is the predominant denomination for both Swedish and Finnish speakers. Religious attendance, beliefs, and values (Saroglou, 2011) cannot be captured, which is problematic from the perspective that the vast majority of the members of the National Lutheran Church are nominal and few attend church weekly or monthly. However, we argue that affiliation in the state church can be an indication of cultural belonging to the national/ethnic community and is a valuable outcome to inquire about, if distinct from religiosity. First, affiliation with the National Lutheran Church means that a person pays more taxes, which will accumulate to quite large sums over life, particularly for high-income earners. In fact, dissatisfaction with the church tax is one of the main reasons Finnish people withdraw from the church (Niemelä, 2015). Second, recent research shows that, in the Nordic countries, nominal affiliation to the national church is associated with stronger national identity and even radical ethnonationalism (Storm, 2011; Xia, 2021). The choice to exit the State Church is also a minority choice (most individuals remain members), and individuals who make this choice are likely to be genuinely more secular and less religious than individuals who remain in the State Church. For other denominations, affiliation likely reflects deeper personal religiosity more often because membership is more often a conscious choice.

*Ethnolinguistic affiliation.* Another unique administrative source that we utilize is ethnolinguistic, or language, registration in Finland. To provide all citizens with services, each person must be registered with one unique mother tongue (the term used in Finnish statistics), which is usually decided by parents recently after birth. Thus, mother tongue is a strong

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<sup>3</sup> The data are fully anonymized and deidentified, stored by Statistics Finland, and only accessible for researchers via a remote-access platform protected by secure VPN and multilevel password system. Analyses and presentation of the results are regulated, and researchers are not allowed to investigate or reveal information about single or small groups of individuals. Our study is covered by ethical approval from Statistics Finland (TK/1444/07.03.00/2021/U1054\_al3).

indicator of ethnicity, especially for the Swedish-speaking community with its high levels of intergenerational transmission of the ethnolinguistic identity (Obućina & Saarela, 2020). In line with previous research (Reini & Saarela, 2017; Saarela & Kolk, 2021), we code individuals into Swedish speakers if they have ever been registered as a Swedish speaker and into Finnish speakers if they have ever been registered as a Finnish speaker and never as a Swedish speaker. Others, who predominantly are foreign-born or children of foreign-born immigrants, are coded as having any other mother tongue, and they are not the focus of the current paper. Because few people change the registered mother tongue over their life course, alternative coding schemes would end up in almost similar results.

*Socioeconomic status.* The socioeconomic indicators include educational level (primary, secondary, and tertiary) and individual income (adjusted with the consumer price index and divided into four quantiles with no income as a separate category), both of which have been derived from administrative registers<sup>4</sup>.

*Home region connection.* We proxy community attachment to your home region with a variable that measures whether a person currently lives in their region of birth<sup>5</sup>.

*Other variables.* Birth cohort, urban/rural residence, sex, and age groups are included as basic demographic control variables in the multivariate models.

### 3.4. Analytical process

We begin by displaying the trends of religious affiliation over the past five decades by comparing Finnish and Swedish speakers at the national level. This analysis is further broken down by age and cohort, educational level, and income.

Further, we use linear probability models, which are ordinary least squares (OLS) regressions with robust standard errors, to test how different individual-level characteristics contribute to the difference in religious affiliation between the two ethnolinguistic groups. We do this across time for three different periods, and can thus see if the socioeconomic determinants of affiliation have been stable over time. We first estimate the bivariate models for the ethnolinguistic difference in religious affiliation rate and then include the control variables for

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<sup>4</sup> These variables are available quinquennially from 1970 to 1985, and annually from 1987. Information for religious affiliation is available annually from 1971 to 2020. So 1975 is the first time point where they can be analyzed together.

<sup>5</sup> Region refers to the first-level administrative division in Finland, which is *maakunta* in Finnish and *landskap* in Swedish.

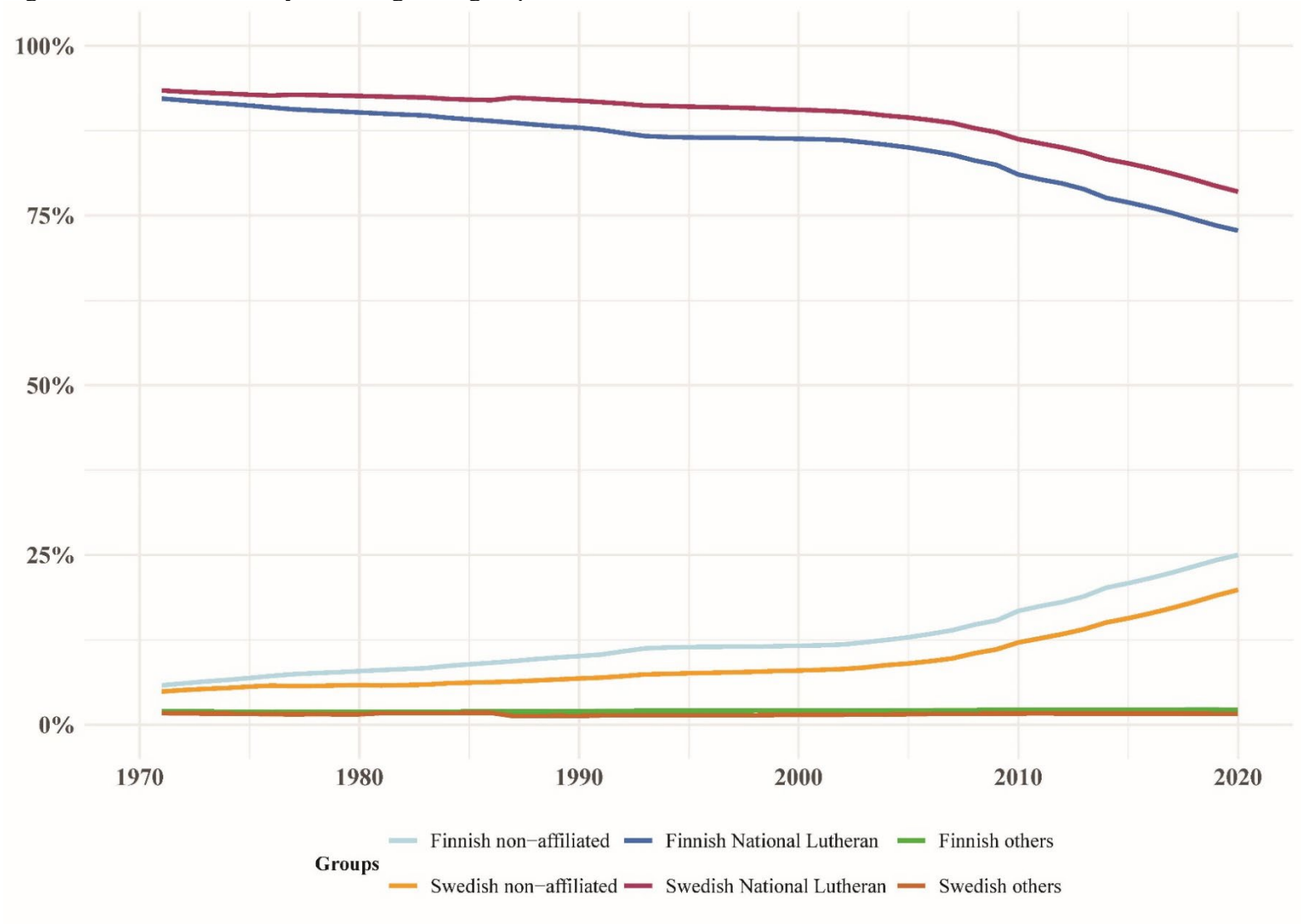
socioeconomic and community attachment characteristics to examine how they may explain the main effect of ethnolinguistic groups. Analysis is carried out by comparing affiliation in three different years: 1975, 1997, and 2018. We also estimate binary logistic regression models to assess the robustness of the findings (Table A3 for results for 2018; results for years 1975 and 1997 available upon request).

## **4. Findings**

### **4.1 Descriptive results**

Figure 1 presents the trends in affiliation rates over the past five decades in Finland for Finnish speakers and Swedish speakers. Overall, Finland underwent strong secularization during the period, with a strong increase in the proportion of the population not affiliated with the church. Both Swedish-speaking and Finnish-speaking Finns have consistently been affiliated predominantly with the National Lutheran Church. When examining ethnolinguistic differences, Swedish speakers have constantly been more affiliated with the National Lutheran Church and less nonaffiliated than Finnish speakers. The pattern is striking because it suggests that the higher-educated and advantaged Swedish-speaking minority is more religiously affiliated, which runs counter to *Hypothesis 1*. Thus, this is in stark contrast to mainstream modernization theories linking education to secularization (Inglehart, 1997; Ruiter & de Graaf, 2006).

Figure 1: Affiliation rate by ethnolinguistic groups 1971-2020



The National Lutheran affiliation rate for Finnish speakers has dropped from 92% in 1971 to 73% in 2020, and for Swedish speakers, it has dropped from 93% to 79%. For both groups, the decline corresponds with a growth in the share of nonaffiliated people. Affiliation rates with other minor denominations have slightly increased for the Finnish speakers and decreased for the Swedish speakers but remain at very moderate levels. A large share of people with other mother tongues are nonaffiliated because they are immigrants, and a couple of thousand belong to the Sami minority. Figure A1 in the Appendix presents how the affiliation rate in 2020 of the two main ethnolinguistic groups differ across geographic areas that have both Swedish-speaking and Finnish-speaking settlements, here following a standard classification scheme (cf. Saarela 2021). In all municipality groups in the “Swedish/bilingual” area, Swedish speakers have a higher affiliation rate than Finnish speakers. In the municipality group with all other municipalities, which contains only about 5% of all Swedish speakers in Finland, the pattern is reversed, albeit smaller. This might indicate that people are assimilated into the norms of the other ethnolinguistic group if they do not reside in their “own” community, particularly for Swedish speakers.

In the following figures, we further explore the Finnish–Swedish difference of religious affiliation (for any denomination). In Figure 2, nonaffiliation of both groups is presented across birth cohort and age groups; it reveals considerable secularization, both between cohorts and within cohorts (cf. Inglehart 1997; Stolz 2020). For both groups, the affiliation rates have declined over cohorts and with age within cohorts (apart from people born before 1945). This development is most likely attributed to life course influence. The life course effect of disaffiliation also tends to have grown stronger in later birth cohorts. Although Swedish speakers are more affiliated than Finnish speakers in all cohorts, the difference is fairly modest in the first years of life, even among the latest cohorts. This suggests that the Swedish speakers, to a lesser extent than the Finnish speakers, have been influenced by the life course effects of secularization.

Figure 3 demonstrates how the religious affiliation rate is associated with ethnolinguistic affiliation and income quantile for the working age population (aged 25 to 60 years) in 1975, 1997, and 2018. Across all three periods, there was, for both the Finnish and Swedish speakers, no clear income gradient in the religious affiliation rate, which does not match modernization theories. Instead, both groups showed reversed U-shaped distributions of religious affiliation across income, and the differences have enlarged over time. Within each income group, the ethnolinguistic difference in religious affiliation was also higher in 2018 than in earlier years.

For both ethnolinguistic groups, the middle-income categories are the most religiously affiliated. For Finnish speakers, the highest income group is the least affiliated, but for Swedish speakers, the least affiliated group turns out to be those without income. The differences among all those groups are substantially small within the ethnolinguistic category.

Figure 4 shows how, starting in 1975, educational level is associated with nonaffiliation. For Swedish speakers, the tertiary-level educated are notably less religiously affiliated than the lower educated. For Finnish speakers, differences in religious affiliation by education are smaller but have grown during the past two decades. Swedish speakers with tertiary-level education are constantly more affiliated than Finnish speakers with or without tertiary-level education. Thus, the Swedish-speaking community seems to be less impacted by secularization under the modernization process.

Figure 2: Affiliation rate by ethnolinguistic group, age and birth cohort 1971-2020

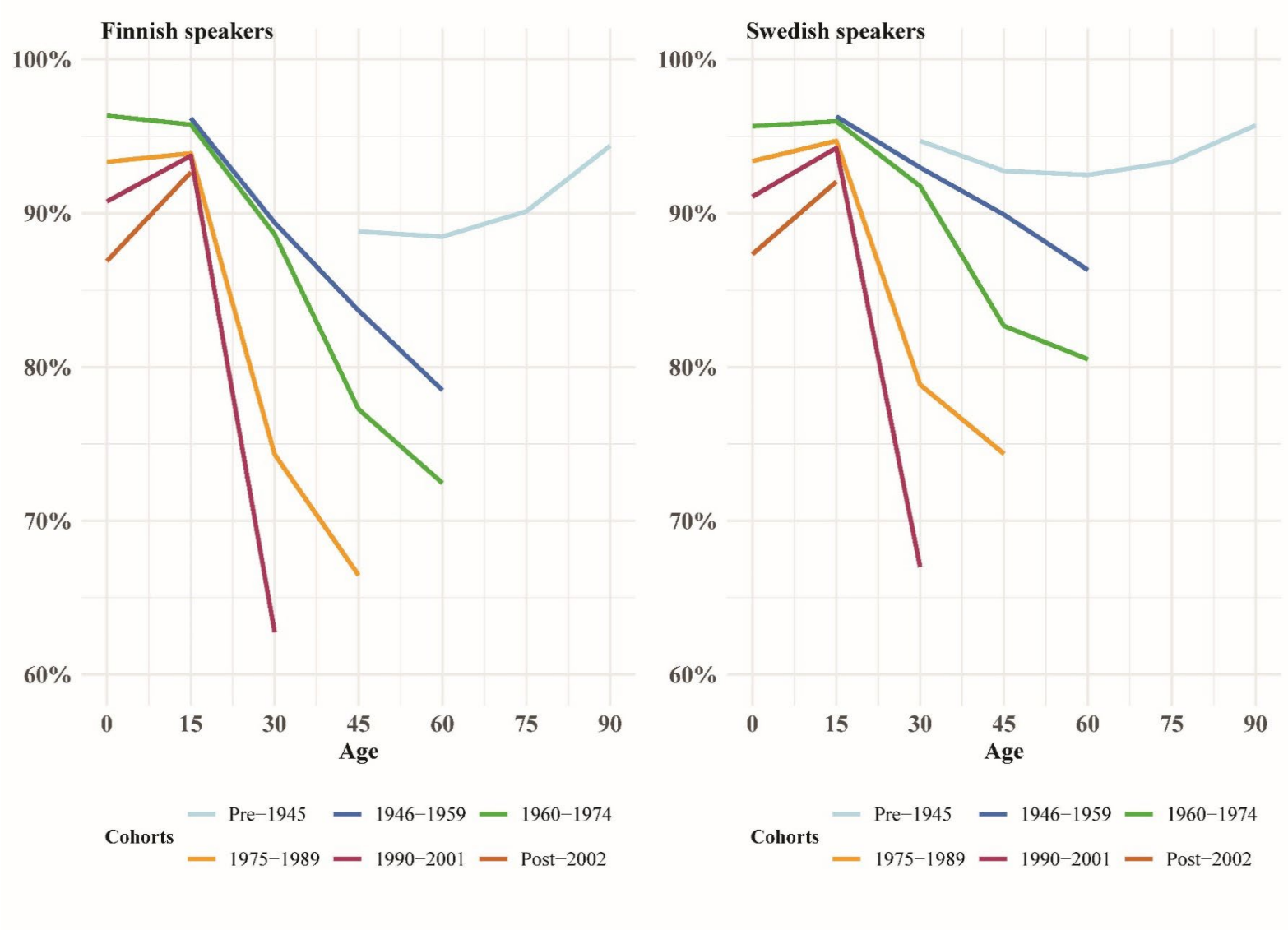




Figure 3: Affiliation rate by income group: 1975, 1997, 2018 (age 25-60)

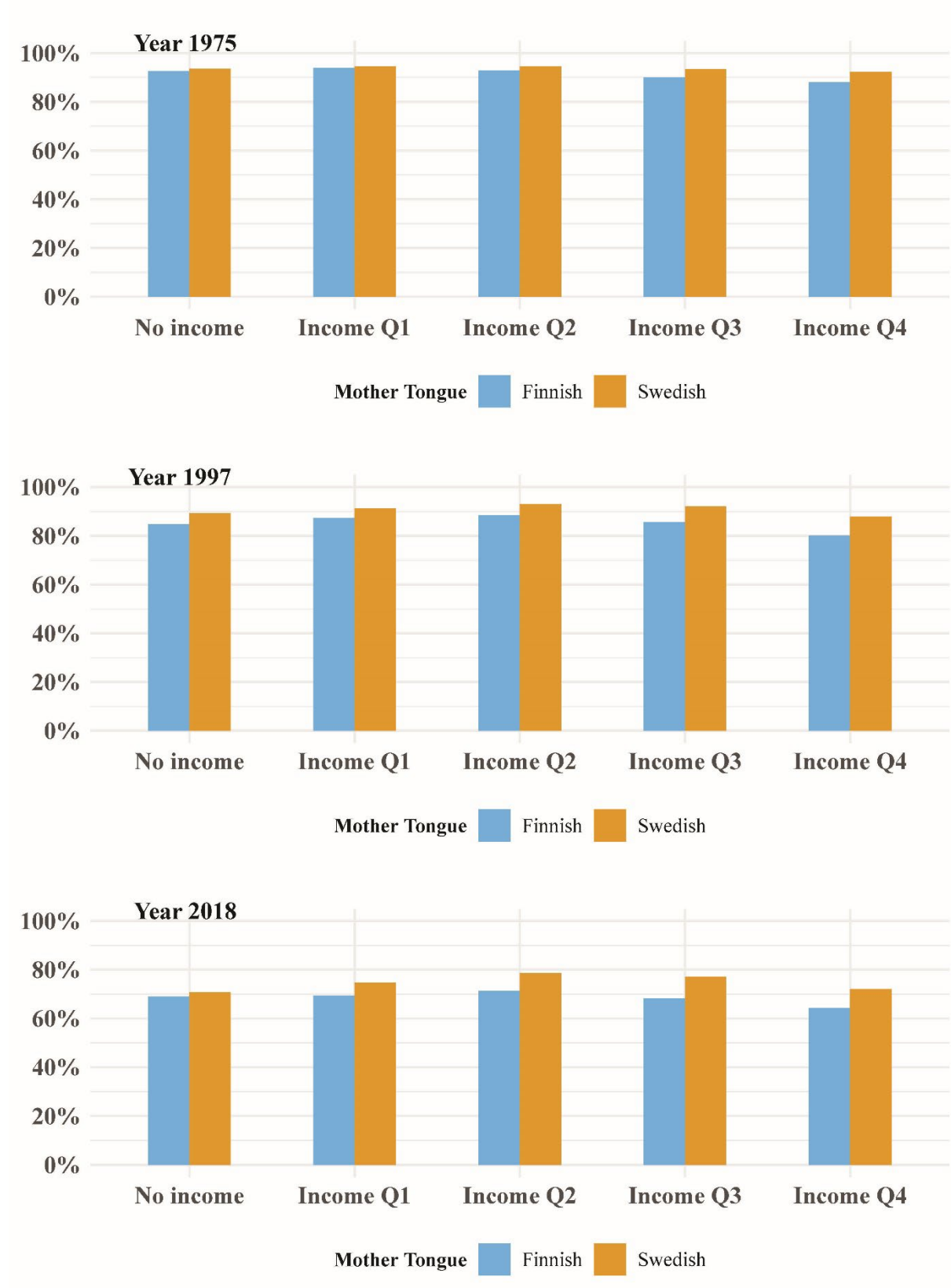
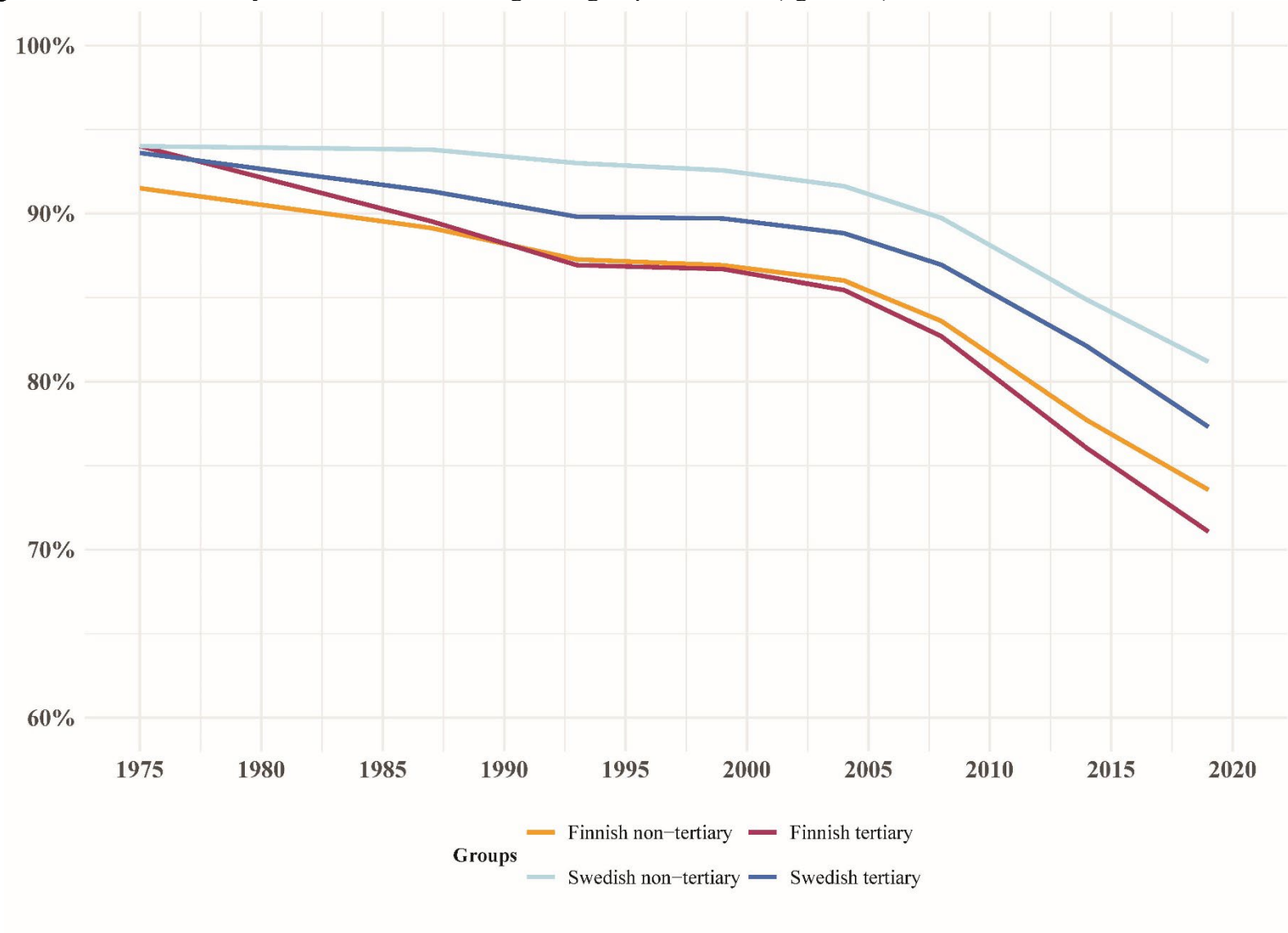


Figure 4: Affiliation rate by education and ethnolinguistic group 1975-2019 (age >=25)



## 4.2 Regression results

Finally, we use regressions to examine how the ethnolinguistic differences in the are associated with different factors. Because the previous descriptive findings have shown that the major difference is because Swedish speakers are more affiliated with the National Lutheran Church as compared to being secular, we have restricted the analysis to members of the National Lutheran Church versus non-members. First, we estimate OLS models using data from 2018. In Model 1 in Table 1, we have tested the bivariate relationship, which confirms that the Swedish speakers are more affiliated with the National Lutheran Church. In our bivariate regressions, the effect size is a little over 7 percentage points. In Model 2, we control for demographic characteristics, including gender, age group, and urban/rural division. Women, rural, and older people tend to be more affiliated with the National Lutheran Church, which is in line with our descriptive results. The coefficient for being a Swedish speaker decreases from 0.072 to 0.052, meaning that a quarter of the ethnolinguistic difference in the affiliation rate can be explained by these characteristics. Swedish speakers are more rural and older than Finnish speakers (descriptive statistics presented in Table A2).

In Model 3, we include socioeconomic variables. As expected, the affiliation rate decreases with income, which is in line with modernization theories. People with secondary-level education turn out to be the least affiliated, which is followed by tertiary-level and primary-level educated, in a pattern that is not consistent with a clear link between higher education and secularization. The coefficient for Swedish speakers is now 0.053, which is almost the same as in Model 2. This suggests that socioeconomic differences, where Swedish speakers have relatively higher income and education than Finnish speakers, is not the explanation for higher affiliation among Swedish speakers. This is related to that both income and education themselves only have a very modest effect on religious affiliation. In Model 4, we enter the variable that reflects community attachment, that is, whether a person lives in or has moved back to their region of birth. The introduction of this variable brings down the estimate for being a Swedish speaker to 0.047, or nearly 5 percentage points. People who live in their birth region are more likely to be affiliated with the National Lutheran Church than those who do not. Therefore, what plays a mediating role in the ethnolinguistic difference in religious affiliation is that Swedish speakers are more likely to stay in the region of birth, thus refraining from migrating to Finnish regions. Therefore, Swedish speakers' attachment to the community of origin seems to retain their higher affiliation rate with the National Lutheran Church, though the part explained by living in the region of birth has only a modest effect. In sum, our findings

partly support *Hypothesis 2*, which states that the Swedish speakers are more religiously affiliated than the Finnish speakers, which is because of their stronger attachment to their own communities, but the region on residing in the birth region can only explain a small part of the higher affiliation among Swedish speakers.

We have also estimated the same models for 1975 and 1997 to compare the results (Table A4-A5). Similarly, we find that, over time, Swedish speakers have been more affiliated with the National Lutheran Church than Finnish speakers. However, the bivariate effect was 0.023 in 1975 and 0.051 in 1997, indicating that the ethnolinguistic gap of National Lutheran church affiliation has been growing. There are divergent patterns across socioeconomic groups over time. In 1975, the affiliation rate to the National Lutheran Church actually increased with educational level, whereas in 1997, it was U-shaped. The differences across income groups were reversed U-shaped in 1975 and 1997. Community attachment also had a mediating role in 1975 and 1997, though the effect sizes were substantially smaller compared with 2018. Broadly, it seems as that the socioeconomic determinants of religiosity in Finland have been quite consistent over time. We thus, find little evidence that any kind of compositional change in the Finnish population have been important for explaining the broad and general secularization we observe over time. It rather seems to have been influences that have affected most groups in society broadly.

In sum, in all our specifications, we find that Swedish speakers show a higher religious affiliation than Finnish speakers. This is to a minor extent explained by sociodemographic characteristics, particularly age and region. We find socioeconomic patterns that are consistent with modernization for income but not for education, but the differences are modest. The higher religious affiliation of Swedish speakers persists in all our regression models, and higher socioeconomic attainment is not the explanatory mechanism. Thus, it seems as that it is traits directly related to the Swedish speaking identity as such, that explains their higher affiliation. The higher connection to their home regions among Swedish speakers explains a small part of this gap. In other words, our results are more consistent with our second hypothesis, emphasizing cultural factors, such as community cohesion as an explanation for higher affiliation among Swedish speakers.

We have also conducted robustness analyses with logistic regression models, which produce similar results (Table A3 in the Appendices for results for year 2018; results for years 1975 and 1997 available upon request).

Table 1: Estimates of OLS regression models on National Lutheran affiliation 2018

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<b>Swedish speaker</b>	0.072*** (0.001)	0.052*** (0.001)	0.053*** (0.001)	0.047*** (0.001)
<b>Finnish speaker</b>	Reference	Reference	Reference	Reference
<b>Woman</b>		0.098*** (0.000)	0.092*** (0.000)	0.095*** (0.000)
<b>Man</b>		Reference	Reference	Reference
<b>Primary-level education</b>			0.023*** (0.001)	0.022*** (0.001)
<b>Secondary-level education</b>			Reference	Reference
<b>Tertiary-level education</b>			0.013*** (0.001)	0.020*** (0.001)
<b>No income</b>			0.011*** (0.001)	0.011*** (0.001)
<b>Income quantile 1</b>			-0.006*** (0.001)	-0.005*** (0.001)
<b>Income quantile 2</b>			Reference	Reference
<b>Income quantile 3</b>			-0.007*** (0.001)	-0.007*** (0.001)
<b>Income quantile 4</b>			-0.024*** (0.001)	-0.021*** (0.001)
<b>Rural/suburban</b>		Reference	Reference	Reference
<b>Urban</b>		-0.094*** (0.000)	-0.092*** (0.000)	-0.085*** (0.000)
<b>Age 25-34</b>		Reference	Reference	Reference
<b>Age 35-44</b>		0.001 (0.001)	0.007*** (0.001)	0.008** (0.001)
<b>Age 45-54</b>		0.037*** (0.001)	0.044*** (0.001)	0.045*** (0.001)
<b>Age 55-64</b>		0.063*** (0.001)	0.066*** (0.001)	0.067*** (0.001)
<b>Age 65+</b>		0.148*** (0.001)	0.146*** (0.001)	0.150*** (0.001)
<b>Lives in region of birth</b>				0.057*** (0.000)
<b>Not in region of birth</b>				Reference
<b>Constant</b>	0.730*** (0.000) 3677517	0.681*** (0.001) 3677517	0.690*** (0.001) 3677517	0.645*** (0.001) 3677517

\*\*\*:  $p < 0.001$ ; \*\*:  $p < 0.01$ ; \*:  $p < 0.05$ ; standard errors in parentheses.

## 5. Concluding discussion

In the current study, we have investigated the ethnolinguistic differences of religious affiliation of the Finnish population by comparing Finnish and Swedish speakers. The Swedish-speaking Finns have higher access to education and a large civil society; in addition, they have been described as having a more tightly knit community in Finland (Hyypä and Mäki 2001; Nyqvist et al. 2008; Saarela and Finnäs 2014, 2003a). This would derive contradictory expectations regarding their religious affiliation levels, according to mainstream sociological theories (Berger, 2011; Durkheim, 1965; Inglehart, 1997). Our results show that the traditional modernization theories in the sociology of religion on socioeconomic status and religion poorly explain both ethnolinguistic group-level differences and within-society socioeconomic differences in Finland, though these theories are consistent with the general trend of increasing secularization over time. We further add doubts against the grand modernization framework, as it explains the within-society variation of religiosity by socioeconomic status rather poorly (in contrast to between-society variations), which has also been noted in previous studies (Molteni, 2020; Stolz, 2020)

In sum, our findings demonstrate that the Swedish-speaking population in Finland is consistently more affiliated with religious denominations, primarily to the National Lutheran Church, when compared with the Finnish speakers. This is at odds with their somewhat higher socioeconomic position, which is generally related to secularity in other contexts. Mediation analysis shows that a main mechanism is that Swedish speakers are more strongly attached to their own community in terms of lower internal mobility rates. This is in line with previous arguments that Swedish-speaking Finns have a stronger community identity and social capital (Holm 1991; Hyypä and Mäki 2001; McRae 1999; Nyqvist et al. 2008). The findings are consistent over a long period, from 1975 to 2018. The ethnolinguistic differences in the religious affiliation rate and contribution of community attachment have even increased over time. Although both groups have undergone secularization in the past five decades, it is weaker among Swedish-speaking Finns. This is possibly because that religious identity serve as one aspect of the ethnolinguistic community, and help main the stability and cohesion of the identity. The conclusion can also be supported by the fact that Finnish speakers are more affected by secularization based on life course dynamics and across socioeconomic status, while Swedish speakers are more likely to be nonaffiliated if they are not residing in regions where Swedish is widely used. Interestingly, we find the socioeconomic differences in religious affiliation are also inconsistent with the modernization argument, especially in the early

periods, in which people with lower socioeconomic status were less affiliated or the relationship was U-shaped.

A speculative explanation that may partly contribute to pattern of socioeconomic differences is the distinct 20th history of Finland where class divisions were very stark, eventually leading to the Finnish Civil War. During the war the White Guards, supported by the elite, had the support of the National Lutheran Church against the more secular Red Guards supported by the communist working class (Huhta, 2019; Tepora & Roselius, 2014). This may have contributed to why non-affiliation was relatively high among the working class in Finland, in contrast to modernization theories suggesting a reverse relationship. Swedish speakers also to a larger extent supported the White Guards during the civil war.

The present study offers insights into the current debate on the universality of secularization trends (Müller, 2020; Stolz, 2020; Voas, 2009). When discussing groups that adopt secularization at a relatively slow rate, at least among Western societies, most of the focus has been on ethnic minority or immigrant populations, for instance, Catholics in English-speaking countries (Wilkins-Laflamme, 2016) and Muslims in Europe (Kaufmann et al., 2012; Voas & Fleischmann, 2012). Although it has been argued that the minority group is more likely to retain religion as an integral part of the identity, other particular factors, including early socialization in the country of origin, discrimination in the host society, and deprived socioeconomic status, also play important roles at the lower levels of secularization of those minority groups. Moreover, because majority and minority groups often have separate religious traditions, the groups need not be directly comparable.

We have compared two ethnolinguistic groups that are both natives, sharing close historical experience and the same religious traditions, with the minority being somewhat more socioeconomically advantaged. Most Swedish speakers and Finnish speakers in Finland are members of the National Lutheran Church, which means that their religious traditions are largely shared. The Swedish speakers have their own diocese, but it is administratively at the same level as the other, region-based, Finnish-speaking dioceses, and it only weakly holds the characteristics of an “ethnic church.” However, our analysis shows that it potentially plays a role in the community and identity building of the Swedish-speaking group in Finland. Our results are consistent to previous studies on the religiosity of minority groups, such as Muslim immigrants in Europe or African Americans (Brown et al., 2013; Voas & Fleischmann, 2012), that identity and community attachment is crucial in maintaining the minority group’s relatively higher level of religiosity compared to the majority population in the same society.

Moreover, our case is special since the Swedish speakers in Finland is not only well-integrated and have deep historical roots, but also educationally better-off in Finnish society. Still, they have maintained substantially higher levels of religious affiliation than the Finnish-speaking majority, under this highly secular context. Our results should be interpreted in light of membership of the National Lutheran Church in Finland being related to a general sense of belonging with the nation, tradition, local community and, perhaps, civic engagement more broadly, on top of being linked to religious beliefs that are only a salient part of membership for some individuals. This may partly explain higher affiliation among Swedish speakers and may be relatively more important than differences in personal religiosity.

We have introduced the use of longitudinal register data in the research on religion, which has been very uncommon in social science research on religion. Previous research on the religion of native minorities has been largely hampered by the unavailability of representative data for small groups. By capitalizing on the unique religious affiliation registry in Finland, we have provided novel contributions to advancing the field. Further research could focus on how religious affiliation is determined by individual and contextual socioeconomic and sociocultural factors, the outcomes of religious affiliation on domains of mortality, labor market outcomes, family behavior, and so forth, which are facilitated by these detailed and high-quality register data. It will also enable analysis for the causal inference on the determinants and consequences of religious affiliation. That being said, it is also worth noting that the data bear the limitation of including only administrative religious affiliation, which often do not reflect strongly felt religious beliefs and practices, especially for the National Lutheran Church. This would require other types of studies and research collaborations from other methodological approaches by utilizing surveys and ethnography.

Finally, our study is limited to the particular case of the ethnolinguistic situation in Finland, so it may not be generalizable. Nevertheless, there are cases in other countries that resemble the ethnolinguistic division within a shared religious belonging among the native population in Finland. For instance, Catholicism is the majority religion for both Flemish-speaking and French-speaking Belgians, where the Flemish population has a larger population and higher socioeconomic status but has historically lacked political power. Switzerland is another example where ethnolinguistic identity and religious tradition both differ and overlap. Studies on these countries have often been descriptive and concerned with regional variation (Lesthaeghe, 1977; Liefbroer & Rijken, 2019; Stolz & Chaves, 2018). Our findings could tentatively be related to these in a greater explorative manner as a way to provide a more



comprehensive picture of divergent global secularization (Müller, 2020; Stolz, 2020). Thus, we encourage more studies comparing religiosity across ethnic groups in other contexts and the underlying mechanisms, along with more research on religion that make use of national register data.

### **Acknowledgement:**

We want to thank Statistics Finland for facilitating the data access, and colleagues from Stockholm University, Åbo Akademi University and Södertörn University for helpful comments. The project is partly funded by Åbo Akademi University under the "Demographic change and ethnolinguistic identity in an intergenerational perspective: The Swedish-speaking population in Finland (DemSwed)" Centre of Excellence, and by Svenska kulturfonden under the project "RelFin: Forskning vid Åbo Akademi om trender i religiöst medlemskap i Svenskfinland".

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## Appendices

Figure A1: Affiliation rate by municipality category<sup>6</sup> and ethnolinguistic group

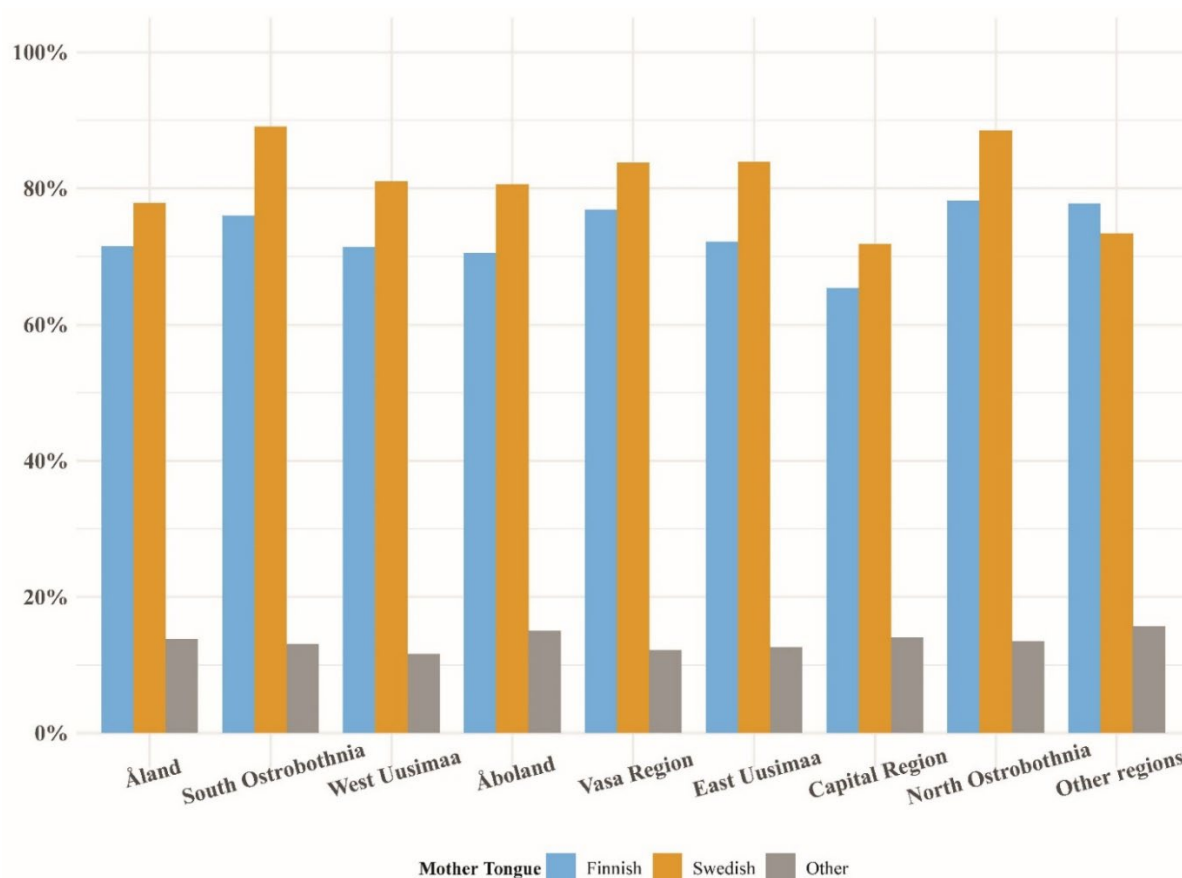


Table A1: Municipalities in the categories referred to in Figure A1

<b>Swedish/bilingual</b>	
<b>Capital Region</b>	Helsinki, Espoo, Vantaa, Kauniainen
<b>East Uusimaa</b>	Sipoo, Porvoo, Loviisa, Myrskylä, Lapinjärvi, Pyhtää
<b>West Uusimaa</b>	Kirkkonummi, Siuntio, Ingå, Lohja, Raseborg, Hanko
<b>Åboland</b>	Turku (Åbo), Pargas, Kimitoön
<b>South Ostrobothnia</b>	Korsnäs, Närpes, Kaskinen, Kristinestad
<b>North Ostrobothnia</b>	Nykarleby, Pedersöre, Jakobstad, Larsmo, Kronoby, Kokkola
<b>Vasa Region</b>	Vaasa (Vasa), Malax, Korsholm, Vörå
<b>Åland</b>	All municipalities on Åland Islands
<b>Finnish-unilingual</b>	
<b>Other region</b>	All other municipalities in Finland

<sup>6</sup> List of municipality groups listed in Table A1

Table A2: Descriptive statistics of variables in the multivariate models (2019)

		<b>Finnish</b>	<b>Swedish</b>	<b>Total</b>
<b>National Lutheran member</b>	Yes	2521844	169647	2691491
	%	72.97	80.20	73.39
	No	934147	41879	976026
	%	27.03	19.80	26.61
<b>Gender</b>	Man	1675328	105838	1781166
	%	48.48	50.04	48.57
	Woman	1780663	105688	1886351
	%	51.52	49.96	51.43
<b>Educational level</b>	Primary	742168	48221	790398
	%	21.47	22.80	21.55
	Secondary	1458109	75349	1533458
	%	42.19	35.62	41.81
	Tertiary	1255714	87956	1343670
	%	36.33	41.58	36.64
<b>Income group</b>	No income	1311929	76854	1388883
	%	37.96	36.38	37.87
	Quantile 1	535262	35197	570459
	%	15.49	16.64	15.55
	Quantile 2	537338	31557	568895
	%	15.55	14.92	15.51
	Quantile 3	538424	32882	571306
	%	15.58	15.55	15.58
	Quantile 4	533038	34936	567974
	%	15.42	16.52	15.49
<b>Urban/rural</b>	Rural/suburban	1020411	97276	1117687
	%	29.53	45.99	30.48
	Urban	2435580	114250	2549830
	%	70.47	54.01	69.52
<b>Age group</b>	Age 25-34	560832	33373	603205
	%	16.49	15.78	16.45
	Age 35-44	574092	32340	6064332
	%	16.61	15.29	16.54
	Age 45-54	579591	36071	615662
	%	16.77	17.05	16.79
	Age 55-64	648258	35412	683670
	%	18.76	16.74	18.64
	Age 65+	1084218	74330	1158548
	%	31.37	35.14	31.59
<b>Lives in birth region</b>	Yes	2019226	150975	1497316
	%	58.43	71.37	40.83
	No	1436765	60511	2170201
	%	41.57	28.63	59.17

Table A3: Estimates of logistic regression models on National Lutheran affiliation 2018

	<b>Model A1</b>	<b>Model A2</b>	<b>Model A3</b>	<b>Model A4</b>
<b>Swedish speaker</b>	0.406*** (0.006)	0.321*** (0.006)	0.321*** (0.006)	0.288*** (0.006)
<b>Finnish speaker</b>	Reference	Reference	Reference	Reference
<b>Woman</b>		0.523*** (0.002)	0.496*** (0.003)	0.512*** (0.003)
<b>Man</b>			Reference	Reference
<b>Primary-level education</b>			0.152*** (0.004)	0.146*** (0.004)
<b>Secondary-level education</b>			Reference	Reference
<b>Tertiary-level education</b>			0.072*** (0.003)	0.112*** (0.003)
<b>No income</b>			-0.106*** (0.004)	-0.095*** (0.004)
<b>Income quantile 1</b>			-0.057*** (0.004)	-0.050*** (0.004)
<b>Income quantile 2</b>			Reference	Reference
<b>Income quantile 3</b>			-0.087*** (0.004)	-0.083*** (0.004)
<b>Income quantile 4</b>			-0.227*** (0.004)	-0.204*** (0.004)
<b>Suburban</b>		Reference	Reference	Reference
<b>Urban</b>		-0.534*** (0.003)	-0.524*** (0.003)	-0.487*** (0.003)
<b>Age 25-34</b>		Reference	Reference	Reference
<b>Age 35-44</b>		0.000 (0.004)	0.027*** (0.004)	0.032*** (0.004)
<b>Age 45-54</b>		0.167*** (0.004)	0.197*** (0.004)	0.202*** (0.004)
<b>Age 55-64</b>		0.296*** (0.004)	0.312*** (0.004)	0.317*** (0.004)
<b>Age 65+</b>		0.813*** (0.004)	0.797*** (0.005)	0.824*** (0.005)
<b>Lives in region of birth</b>				0.302*** (0.003)
<b>Not in region of birth</b>				Reference
<b>Constant</b>	0.993*** (0.001)	0.822*** (0.004)	0.861*** (0.005)	0.621*** (0.005)
<b>N</b>	3667517	3667517	3667517	3667517

\*\*\*:  $p < 0.001$ ; \*\*:  $p < 0.01$ ; \*:  $p < 0.05$ ; standard errors in parentheses



Table A4: Estimates of OLS regression models on National Lutheran affiliation 1975

	<b>Model A1.1</b>	<b>Model A1.2</b>	<b>Model A1.3</b>	<b>Model A1.4</b>
<b>Swedish speaker</b>	0.023*** (0.001)	0.017*** (0.001)	0.014*** (0.001)	0.010*** (0.001)
<b>Finnish speaker</b>	Reference	Reference	Reference	Reference
<b>Woman</b>		0.060*** (0.000)	0.056*** (0.000)	0.058*** (0.000)
<b>Man</b>		Reference	Reference	Reference
<b>Primary-level education</b>			-0.013*** (0.001)	-0.014*** (0.001)
<b>Secondary-level education</b>			Reference	Reference
<b>Tertiary-level education</b>			0.035*** (0.001)	0.038*** (0.001)
<b>No income</b>			-0.011*** (0.001)	-0.011*** (0.001)
<b>Income quantile 1</b>			0.003*** (0.001)	0.002*** (0.001)
<b>Income quantile 2</b>			Reference	Reference
<b>Income quantile 3</b>			-0.013*** (0.001)	-0.012*** (0.001)
<b>Income quantile 4</b>			-0.025*** (0.001)	-0.023*** (0.001)
<b>Rural/suburban</b>		Reference	Reference	Reference
<b>Urban</b>		-0.094*** (0.000)	-0.092*** (0.000)	-0.085*** (0.000)
<b>Age 25-34</b>		Reference	Reference	Reference
<b>Age 35-44</b>		-0.021*** (0.001)	-0.015*** (0.001)	-0.014** (0.001)
<b>Age 45-54</b>		-0.036*** (0.001)	-0.028*** (0.001)	-0.026*** (0.001)
<b>Age 55-64</b>		-0.022*** (0.001)	-0.014*** (0.001)	-0.012*** (0.001)
<b>Age 65+</b>		-0.006*** (0.001)	0.004*** (0.001)	0.005*** (0.001)
<b>Lives in region of birth</b>				0.025*** (0.000)
<b>Not in region of birth</b>				Reference
<b>Constant</b>	0.917*** (0.000)	0.942*** (0.001)	0.953*** (0.001)	0.933*** (0.001)
<b>N</b>	2081015	2081015	2081015	2081015

\*\*\*:  $p < 0.001$ ; \*\*:  $p < 0.01$ ; \*:  $p < 0.05$ ; standard errors in parentheses.

Table A5: Estimates of OLS regression models on National Lutheran affiliation 1997

	<b>Model A2.1</b>	<b>Model A2.2</b>	<b>Model A2.3</b>	<b>Model A2.4</b>
<b>Swedish speaker</b>	0.051*** (0.001)	0.042*** (0.001)	0.041*** (0.001)	0.035*** (0.001)
<b>Finnish speaker</b>	Reference	Reference	Reference	Reference
<b>Woman</b>		0.072*** (0.000)	0.067*** (0.000)	0.069*** (0.000)
<b>Man</b>		Reference	Reference	Reference
<b>Primary-level education</b>			0.005*** (0.001)	0.003*** (0.001)
<b>Secondary-level education</b>			Reference	Reference
<b>Tertiary-level education</b>			0.021*** (0.001)	0.025*** (0.001)
<b>No income</b>			-0.030*** (0.001)	-0.029*** (0.001)
<b>Income quantile 1</b>			-0.010*** (0.001)	-0.010*** (0.001)
<b>Income quantile 2</b>			Reference	Reference
<b>Income quantile 3</b>			-0.014*** (0.001)	-0.013*** (0.001)
<b>Income quantile 4</b>			-0.041*** (0.001)	-0.038*** (0.001)
<b>Rural/suburban</b>		Reference	Reference	Reference
<b>Urban</b>		-0.081*** (0.000)	-0.080*** (0.000)	-0.074*** (0.000)
<b>Age 25-34</b>		Reference	Reference	Reference
<b>Age 35-44</b>		-0.053*** (0.001)	-0.049*** (0.001)	-0.048*** (0.001)
<b>Age 45-54</b>		-0.055*** (0.001)	-0.049*** (0.001)	-0.046*** (0.001)
<b>Age 55-64</b>		-0.036*** (0.001)	-0.026*** (0.001)	-0.021*** (0.001)
<b>Age 65+</b>		0.001*** (0.001)	0.017*** (0.001)	0.021*** (0.001)
<b>Lives in region of birth</b>				0.057*** (0.000)
<b>Not in region of birth</b>				Reference
<b>Constant</b>	0.866*** (0.000)	0.906*** (0.001)	0.915*** (0.001)	0.885*** (0.001)
<b>N</b>	3419014	3419014	3419014	3419014

\*\*\*:  $p < 0.001$ ; \*\*:  $p < 0.01$ ; \*:  $p < 0.05$ ; standard errors in parentheses.

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