Should Europe Open its Doors to Foreigners?
A Cross-Country Analysis of Public Views on Replacement Migration

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Abstract

Concerns about population decline in Europe have occupied the attention of demographers and policy makers over the past decade. However, public attitudes about replacement migration, as a solution to address the deficit of population, have been under-explored. Using cross-national data from the Eurobarometer survey (2006) and concurrent country-level data, this study examines individual- and contextual-level predicting factors of attitudes toward the perceived demographic impact of immigrants in the current 27 member countries of the European Union. Building on previous research, this paper further investigates the cross-country variation in public attitudes about replacement migration. Results from multilevel logit analyses indicate that urban, university-educated, and childless individuals are consistently more likely than others to endorse replacement migration in Europe. Countries with higher economic levels and proportionally fewer foreign-born residents also show more positive attitudes. Such results echo research on anti-immigrant sentiment, suggesting considerable resistance to policies encouraging large-scale immigration. We discuss these findings in light of demographers' criticism of the concept of replacement migration and alternative long-term strategies.

Sustained, below-replacement levels of fertility over the past two decades have provoked concerns about a shortage of young people and growing proportions of older adults, with potentially severe implications for the labour force structure (Bijak et al. 2008; United Nations 2002:1-3). In response, a number of countries have debated or implemented pro-natalist policies as long-term strategies. At the same time, replacement migration – a strategy to encourage immigration to counterbalance population decline from low fertility – has been promoted in the international community as an avenue for population growth (United Nations 2002:1-3), prompting pressure on European governments to revise immigration laws. Demographers have been more sceptical, describing population decline as inevitable and irreversible (Coleman 2002) and raising doubts about the likelihood and potential effectiveness of replacement migration as a population policy (Bouvier 2001; Coleman 2002; Espenshade 2001; Keely 2001; Saczuk 2003). Based on demographic projections, replacement migration could offset Europe's ageing populations only through rapid and substantial influxes of immigrants (Coleman 2008),[1] something that the European publics are likely to disfavour. Indeed, such large-scale immigration may yield an increase in anti-foreigner sentiment and heightened concerns about competition for jobs, housing, or social benefits.

Little is known about where the general public stands (or, more precisely, where the diverse publics within Europe stand) with regard to the notion of replacement migration as a potential solution to the demographic and economic problems of population decline. A vigorous discussion of population prospects, prompted by the U.N. Population Division's (2000) report on replacement migration, has played out in the United Nations (see Annan 2002; Dini 2000), as well as in the European Parliament and in the international press. Although criticized for both its

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[1] According to Bijak et al. (2007:3), while large-scale immigration may immediately impact on the age structure of the host populations, increasing fertility rates could be more effective in the long run.

methods and conclusions, the report's impact on public opinion in Europe and its potential as a source of additional political pressure or resistance has not been explored. Yet, policy development and implementation, to be successful, need to be paralleled by a scrutiny of public views, especially when it comes to sensitive issues such as immigration. Furthermore, the substantial gap between the opinions of elites and those of the general population with respect to immigrants and immigration in Europe (Lahav 2004) points to the need for periodic assessments of population-based data and cross-national variations in attitudes. Such differences across countries may be related to different understandings of larger societal impacts, as well as different personal perceptions of threat. At the societal level, studies of anti-foreigner sentiment have identified strong economic and regional correlates, but have paid lesser attention to the specific demographic circumstances (e.g., age composition and sex ratios) that may influence perceptions of immigrants and of replacement migration.

Informed by the relevant demographic literature and building on previous studies of public attitudes toward immigrants in Europe, this study examines the individual- and contextual-level correlates of public views about replacement migration in the 27 member-states of the European Union using Eurobarometer and Eurostat data. Specifically, the following questions are addressed: (1) To what extent do public perceptions about replacement migration differ across European countries? (2) What micro- and macro-level factors may help to explain differences in such views between national publics? The latter question is addressed by examining whether micro- and macro-level predictors of anti-immigrant sentiment are also related to public attitudes about replacement migration as a solution to the problems of population ageing and lower fertility rates.

Theoretical Foundations

  This paper is anchored in two traditions: (a) the demographic literature on replacement migration and (b) the vast research on public attitudes towards immigrants and their impact on the receiving societies. With respect to the first tradition, demographers have long investigated the macro-level processes of migration and their potential role in shaping population size and composition (e.g., Bijak, Kupiszewska, and Kupiszewski 2008; Bouvier 2001; Coleman 2002, 2008; Espenshade 2001; Keely 2001). Historically, migration patterns in most of Europe have favoured emigration, whereas substantial influxes of foreigners have been a relatively recent phenomenon (Coleman 2008; Livi Bacci 2000). Much of the research on migration has focused on measuring the process itself, estimating the demographic impact, and identifying the correlates of migration at both the macro and individual levels. Among the demographic processes, however, migration is distinctive in the extent to which it is explicitly and directly shaped by government policies (Coleman 2008) and indirectly by public opinion.

  An important stimulus to international debates about immigration's demographic impact was the publication of the U.N. Population Division's (2000) report that may have coined the term "replacement migration" and which brought the concept into public discourse. Focusing on eight countries (including France, Germany, Italy, and the United Kingdom), as well as Europe and the European Union, this report's population projections to 2050 pointed to the need for substantial influxes of immigrants in order to maintain current population sizes or stable elder support ratios (U.N. 2000). Although the report noted that international migration by itself could not counterbalance the effects of sustained below-replacement fertility (U.N. 2000:14), its emphasis on migration contributed to a larger debate about more permissive immigration

regimes and greater general acceptance of immigrants into European societies (see Annan 2002; Dini 2000).

Critics of the U.N. report (and of the idea of replacement migration) have raised concerns about both the projection methods and the policy conclusions. For example, Grant (2001) and Meyerson (2001) have questioned the premise of maintaining actual population size, while also noting the potential economic and ecological advantages of smaller populations. Coleman (2008) and Bermingham (2001) have emphasized the limited potential of migration to offset population decline and ageing. Lutz and colleagues (2003) have suggested that programs encouraging earlier childbearing (as opposed to larger families) may offer a more tenable alternative to population decline and ageing. Other options include adjustments in employment or retirement policies (Grant 2001; Meyerson 2001), as well as more general economic and social adaptation to new demographic circumstances (Abernethy 2001).

The debate about population ageing and decline has been described as "compet[ing] with global warming as a major European pre-occupation" (Coleman 2008:467). Economic concerns about future growth and productivity, pension programs, and labour demands have contributed to the prominence of immigration in political, media, and advocacy group discussions (Coleman 2008; Teitelbaum 2004). With regard to population decline, however, the very high levels of immigration needed to counteract the declines in fertility and losses to mortality are unlikely to be tolerated or achieved in the future (Coleman 2008), and would result in a dramatic social and ethnic transformation of Europe (see also Bouvier 2001). Furthermore, Coleman (2008:467) has noted that such an influx of immigrants would need to be continuous, as immigrants themselves would eventually also age (a model that he described as akin to a demographic "Ponzi scheme").

The second theoretical tradition that informs this study is represented by the literature on anti-foreigner sentiment in Europe. An overview of the research on the sources and triggers of unfavourable attitudes toward immigrants reveals that scholars differ in theoretical approaches and in the operationalization of outcomes and predicting variables. Previous studies have shown that the reluctance expressed by the European publics toward immigrants varies extensively across countries and that it is fuelled by an amalgam of personal characteristics, circumstances, and assessments, as well as of contextual factors. Attitudes toward foreigners stem from ethno-racial antipathy, economic insecurity that may manifest itself individually or collectively, or from perceptions that immigrants abuse the welfare system and contribute little or nothing in return. A number of studies have focused on the individual-level determinants of anti-immigrant sentiment, evincing the impact of economic and political standing, socio-demographic attributes or socio-psychological preferences. This perspective posits that individuals' social trajectories largely determine the manifestation of prejudiced attitudes. Accordingly, those in direct competition with out-group members as a result of temporarily or permanently belonging to vulnerable categories are more prone to develop feelings of animosity. Other individual-level explanations of antipathy have identified the following processes: rational calculations that are embedded in their socio-economic position (e.g., Jackson et al. 2001; Mayda 2006; Sniderman, Hagendoorn, and Prior 2004); cultural marginality (Fetzer 2000a, b); national feelings and supra-national identification (Ceobanu and Escandell 2008; De Figueredo and Elkins 2003; Luedtke 2005; Sides and Citrin 2007); and minority contact (McLaren 2003; Pettigrew 2000). At the individual level, educational attainment and political affinity appear to be two of the most stable predictors of opinions concerning immigrants (e.g., Coenders and Scheepers 2003; Hjerm 2001; Kunovich 2002; McLaren 2003; Quillian 1995), although there are other variables affecting anti-

immigrant attitudes such as embracing an European identity and establishing contact, such as having minority friends (Pettigrew 2000).

While personal attributes and perceptions explain a great deal of cross-national variation in Europeans' attitudes and predispositions toward immigrants, another line of research has extended beyond individual-level predictors to include contextual factors. By integrating the findings at the micro level into analytical models that account for the influence of structural determinants, these latter studies have added new dimensions in explaining the variation of attitudes toward out-group members (Ceobanu and Escandell 2008; Coenders and Scheepers 2003; Hello, Scheepers, and Gijsberts 2002; Hjerm 2007; McLaren 2003; Quillian 1995; Scheepers, Gijsberts, and Coenders 2002; Scheepers, Gijsberts, and Hello 2002; Semyonov, Raijman, and Gorodzeisky 2006; Schneider 2008). Central to this line of research is the notion that societal factors such as the state of the economy or the size of the immigrant population directly affect the expression of anti-immigrant attitudes. Attention to macro-structural factors has allowed scholars to test an array of expectations on the embedded nature of public responses toward immigrants, while also controlling for individual characteristics. An analogous approach is employed in the present study.

Formal Expectations

The two traditions summarized above provide the foundation for addressing several hypotheses. First, drawing on studies of anti-foreigner sentiment, attitudes about replacement migration may be negatively influenced by the perceived competition posed by foreigners, particularly in the economic sphere. Therefore, we expect that the individuals who are better educated and hold a steady job are less prone to face direct competition for jobs and will

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therefore generally hold more positive views on the societal consequences of replacement migration. At the same time, considering that immigrants' presence in Europe is mostly an urban one, respondents living in cities and towns could be more inclined to see replacement migration as a plausible solution to the problem of population decline. These same factors – being employed, higher levels of education, and urban residence – are also linked with low fertility at the individual level, suggesting a further connection to attitudes about immigration: these individuals may be most resistant to approaches that emphasize pro-natalist solutions and therefore more accepting of immigration as a pragmatic alternative. Also, respondents with children may view immigrants as posing a long-term threat to the economic well-being of their offspring and, therefore, may show less endorsement of replacement migration than respondents with no children. Other demographic characteristics, such as sex, age, and marital (or partner) status, are less linked to immigration-related attitudes and represent important controls in our analytical models.

Cross-national variation in public views about replacement migration in the European societies may be related not just to dissimilarities among individuals, but also to contextual differences. To begin with, a country's economic performance affects personal material interests and public good, and is thought to directly affect general attitudes toward immigrants (Quillian 1995). Inauspicious economic circumstances are generally believed to trigger competition between individuals and groups within the society, exacerbating unfavourable views towards immigrants and perceptions of immigrants as a long-term economic threat. Also, in direct relation to economic circumstances, a larger proportion of foreigners in the population may evoke a greater sense of material and symbolic threat and more intense negative attitudes toward immigrants. At the same time, demographic characteristics and trends within societies may

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contribute to the extent to which replacement migration is recognized and supported by the general public. For example, countries which already have large and visible aged populations may be concerned about long-term solutions, including immigration, whereas those already coping with high proportions of foreigners may be more reticent. Factors that have contributed to very low fertility in some countries, including high unemployment and limited policy supports for working families, may also influence public opinion about immigration, either opposing the potential competition of immigrants or supporting immigration as an answer to falling birth rates. An aversion to pro-natalist policies may also lead to greater acceptance of immigration as an alternative pathway to population growth (Coleman 2008). Finally, when it comes to welfare provisions granted by the state, it could be inferred that individuals in generous welfare regimes are less likely to view immigrants favourably (and, by extension, to endorse replacement migration) due to perceptions of immigrants abusing the system and giving next to nothing in return (e.g., Mayda 2006), as well as a preference for restricting certain government benefits to native-born citizens.

Data and Measures

The individual-level data used in this study are from a 2006 Eurobarometer survey. The micro-level dataset consists of 23,386 individuals who were born in their respective countries and who held the citizenship of their birthplace, with ages between 18 and 74 years, from 27 countries that are also the current members of the European Union: Austria, Belgium, Bulgaria, Cyprus (Republic), Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and United Kingdom. These countries differ in

terms of immigration histories, size and composition of their immigrant groups, current

immigration policies, and demographic characteristics of their populations. The individual-level

data are used to construct the dependent variable and the micro-level predictors. Independent of

the individual-level data, we have assembled a set of contextual-level measures for each country

included in the study, drawing on the Eurostat database, to reflect the demographic and economic

circumstances, as well as social benefits provided by the state.

      The dependent variable in this analysis is based on individual responses to the following

statement: "For each of the following statements, please tell me whether you tend to agree or

tend to disagree: The arrival of immigrants in Europe can efficiently solve the problem of

Europe's ageing population." The original response categories[2] were recoded into two groupings,

with the first original category being coded 1 (agree) and the remaining three coded 0 (not

agree).

(Figure 1 about here)

      The country-based mean values for the dependent variable, grouped geographically into

four regions, are graphed in Figure 1 and reveal substantial variation among countries. The

European respondents who are least inclined to endorse replacement migration are from the

countries which have been recently admitted into the European Union (Malta, Bulgaria, Cyprus,

Latvia, Hungary, and Romania). By contrast, respondents from Spain, Finland, Sweden and

Denmark are most likely to express support for replacement migration. In only two countries,

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[2] These were as follows: "1 = tend to agree", "2 = tend to disagree", "3 = it depends (spontaneous)" and "4 = DK".

Spain and Finland, do the majority of respondents view the process of replacement migration positively.

At the individual level, we introduce several socio-demographic and labour force status measures into the analysis. The individual socio-demographic variables include the following: sex (males coded 1 and females coded 0), age (measured in years), marital status (living with a partner coded 1, otherwise coded 0), having no children (coded 1, having one or more coded 0), urban location (coded 1, with rural as the reference), level of educational attainment[3] (some university education or higher coded 1 and the rest 0), and labour force status (active coded 1, non-active coded 0).

At the macro-level, four clusters of country-specific measures for the year 2006 serve as the independent variables of interest in this study. These contextual variables reflect cross-country differences in (a) economic circumstances (unemployment rate and GDP per capita), (b) demographic characteristics specifically related to population ageing and migration (percent of population aged 65 years or older, population growth rate, and percent foreign population), (c) other demographic characteristics that may play an indirect role (population density, sex ratio, and fertility rate), and (d) social benefits granted by the state.

Figure 2 shows the bivariate relation between GDP per capita and the outcome variable, attitudes about replacement migration. The countries with the least accepting attitudes are those with relatively low economic levels, particularly the newer members of the EU in Eastern Europe. The smaller island states of Malta, Cyprus, and Ireland have similarly negative attitudes about migration, possibly related to a greater sense of more immediate Malthusian constraints of limited land mass on population growth and immigration. The most positive attitudes about replacement migration are found in Spain, Finland, Sweden, and Denmark. The diversity among

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[3] Created from the following questionnaire item: "How old were you when you stopped full-time education?"

these countries suggests that multiple country-level factors may be related to more positive attitudes, which are explored further through multilevel logit regression models. The bivariate correlation between GDP per capita and more favourable attitudes about replacement migration is relatively high ($r = 0.471$; $p = 0.013$).

(Figure 2 about here)

A scatterplot of population growth rates and the outcome variable is shown in Figure 3. If individuals support replacement migration, then one might expect that a lower growth rate would be related to a greater sense of the need for migration, whereas high growth may be perceived as threatening by local populations. On the other hand, although high growth signals less need for new immigrants, it may reflect a greater openness to newcomers within a population. The results show that low acceptance among the Eastern European countries appears strongly related to their lower growth rates, particularly those with negative growth (i.e., Lithuania, Latvia, Bulgaria, Estonia, Romania, and Hungary). However, the two other countries with negative growth rates, Germany and Poland, appear to be somewhat more amenable to replacement migration. Further, among the countries with the highest growth rates, a vast dissimilarity in attitudes exists, ranging from a majority acceptance in Spain to moderate support in Luxembourg, and negative attitudes in Ireland and Cyprus. As a result of these variations, the correlation coefficient is not statistically significant ($r = 0.320$; $p = 0.103$), suggesting that population growth rates may be experienced differently across national publics. These inconclusive results are further investigated through multilevel logit regression models, as described below.

(Figure 3 about here)

Analytical Models

To assess the relations of the individual and contextual characteristics with the dependent variable, support for replacement migration, the analysis is modelled as a two-level structure, with individuals nested within countries. Using multilevel logit modelling (Snijders and Bosker 1999; Guo and Zhao 2000; Raudenbush and Bryk 2002), we specify a total of six models. The first model enters the individual-level predictors, while the subsequent four models enter several clusters of macro-level factors in addition to the micro-level variables. Finally, in Model 6, all micro- and macro-level predicting variables are entered together in the analysis. In the models that have been tested here, all the country-level measures are grand-mean centred.[4]

At the individual-level of analysis the mathematical equation is:

$$p_{ij} = \Pr(Y_{ij} = 1), \qquad (1)$$

$$\log[p_{ij}/(1-p_{ij})] = \beta_{0j} + \sum_{q=1}^{8} \beta_{qj} * X_{qij} + r_{ij}, \qquad (2)$$

where Y_{ij} is the answer of a respondent i ($i = 1, 2,\dots, n_j$) in the jth ($j = 1, 2,\dots,27$) country on the outcome variable public views of replacement migration, X_{qij} ($q = 1, 2,\dots, 7$) is an individual variable q for case i in unit j, β_{0j} is a level-1 intercept, β_{qj} is a level-1 vector of slopes, and r_{ij} is a level-1 error term.

The level-2 equation is expressed as:

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[4] The procedure of grand-mean centering eases the interpretation of the coefficients. See, for example, Raudenbush and Bryk (2002:34-5) and Hox (2002:54-7).

$$\beta_{0j} = \gamma_{00} + \sum_{s=1}^{9} \gamma_{0s} * W_{0sj} + u_{0j}, \tag{3}$$

where β_{0j} is the intercept estimated in equation (2), W_{0sj} ($s = 1,\ldots, 9$) is a contextual variable, γ_{00} is a level-2 intercept, γ_{0s} is a vector of slopes for the contextual variables, and u_{0j} is a level-2 error term.

Results

The results from the multilevel logit models are presented in Table 1, providing fixed effects coefficients (log-odds, odds ratios and standard errors) and random statistics (between-country variance and deviance). The results from Model 1, which tests for the independent probabilistic effect of the individual-level predicting variables, indicate that having no children, living in urban centres, being educated at the university level, and being active in the labour force are significantly and positively related to greater endorsement of replacement migration. These results parallel previously reported findings on the individual-level characteristics that are linked with more positive attitudes toward immigrants (e.g., Coenders and Scheepers 2003; Hello, Scheepers, and Gijsberts 2002; Hjerm 2007; Kunovich 2002; Pettigrew 2000; Scheepers, Gijsberts, and Coenders 2002; Semyonov, Raijman, and Gorodzeisky 2006). Controlling for sex, age, and marital status, the conditional expected log-odds values for those who have children, live in rural areas, have not been exposed to a university-level education and do not hold an active status in the labour force is -1.354, corresponding to a probability of nearly 26% of agreeing that immigrants will efficiently solve the problem of population decline in the European countries. Having no children, living in urban centres, having been exposed to a university-level education and being active in the labour force each increases the odds of endorsing replacement migration by 15%, 13%, 15% and 8%, respectively. Holding constant the random variability and

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net of sex, age and marital status, for those European respondents who are childless, reside in towns and cities, have attended universities, and are occupationally active the probability of supporting immigration as a solution to offset population decline in Europe is 52%. Compared to the null model, the introduction of the socio-demographic variables into the analysis increases the amount of explainable between-country variation in the dependent variable's log-odds to nearly 34%.[5] Also, the log-likelihood reduction indicates a better fit than the null model.

(Table 1 about here)

In addition to the socio-demographic variables entered previously, Model 2 considers a country's economic circumstances via two macro-level measures – unemployment rate and GDP per capita. With the exception of labour force status (active), the earlier effects of having no children, urban residence, and a university-level education are retained. Unlike relative economic prosperity (expressed through GDP per capita), the influence of national unemployment rate does not attain statistical significance. A one unit increase in GDP per capita from the 27-country mean level of 97.46[6] raises significantly ($p \leq 0.01$) the odds of endorsing replacement migration, though the 0.6% percent increase represents a small absolute effect. When compared to Model 1, the inclusion of the two measures of economic condition yields an increase in the between-country variation in log odds for the dependent variable. The model comparison test for the deviance statistic -2ln L ($\chi^2 = 3.68$; df = 1; $p = 0.157$) suggests that Model 2 is not an improvement in fit over Model 1.

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[5] We use the formula proposed by Kreft and de Leeuw (1998) for the explained between-country variance: (unrestricted error – restricted error)/unrestricted error.

[6] The value is calculated for 2006 in Purchasing Power Standards. The mean for EU-27 is 100 (Source: Eurostat).

Taking Model 1 as the baseline, Model 3 adds the following country-level demographic characteristics: percentage of the population aged 65+ years old, total population growth rate, and percentage of foreign nationals in the total population. Each is significantly related ($p \leq$ 0.05) to the outcome. Thus, a 1% increase in the proportion of older adults (65+ years) from the respective 27-country means of 15.67 and a 0.435 increase in total population growth raise the odds of supporting replacement migration by 6% and 40%, respectively. The proportion of foreign nationals in the population, on the other hand, significantly reduces the dependent's log-odds ($b = -0.015$; $p \leq 0.05$): every percentage point above the cross-country average of 7.02 percent foreign nationals decreases the dependent's odds to by 0.015. The pattern of coefficients for the individual-level variables reported in Model 1 is retained. Compared to Model 1, the inclusion of the first cluster of country-level demographic characteristics into the analysis explains nearly 9% more of the between-country dispersion in the dependent's log-odds. However, the deviance statistic test does not attain significance ($p \leq 0.05$), which indicates that Model 3 does not represent an improvement in fit over the model with only the micro-level predicting variables.

The fourth model considers the effects of three other country-level demographic characteristics – population density, sex ratio, and fertility rate – controlling for the individual-level attributes. The analyses show that a country's fertility rate is not statistically related to the dependent variable, whereas population density and sex ratio show statistically significant inverse relationships. Thus, in countries where the population density is higher than the cross-country average, the log-odds of endorsing replacement migration decrease significantly. At the same time, a higher ratio of women per 100 men is also associated with a reduction in the dependent's log-odds: a unit increase in sex ratio above the 27-country mean of 105.61 is

associated with only 0.95 times the odds of supporting replacement migration. In addition, this model retains the previously reported significant coefficients for four individual-level variables (in Model 1), demonstrating that their influence is largely independent of the macro-level factors. When compared to Model 1, the current model explains 17% more in the dispersion of dependent's log-odds across the 27 European countries. Finally, the results from the model comparison test ($\chi^2 = 7.65$; df = 3; $p = 0.053$) suggest a marginal improvement in fit over Model 1.

In Model 5, we test for the independent probabilistic effect of a country's total expenditure on social benefits (as a percentage of GDP), net the of the individual-level attributes. A country's total expenditure on social benefits is strongly related to expressing support for replacement migration; each one percentage increase in total expenditure in social benefits above the cross-country mean (21.40) significantly ($p \leq 0.001$) raises one's odds of being in accord with the immigrants' positive demographic impact by 5%. Relative to the baseline (Model 1), Model 5 explains nearly 8% more in the cross-country variation in dependent's log-odds, and the statistics from the model comparison test ($\chi^2 = 8.00$; df = 1; $p = 0.005$) evidence adequate improvement in fit.

A final sixth model adds all the micro- and macro-level predicting variables in the analysis. Net of everything else, three of the individual socio-demographic characteristics introduced in the previous models (1-5) retain statistical significance: parenthood, urban residence, university level education. However, of all nine contextual-level factors, only two (percent foreign population and GDP per capita) remain strong ($p \leq 0.05$). Higher GDP per capita is related to greater agreement, whereas a larger proportion of foreign nationals reduces endorsement of replacement migration. Respondents who do not have children, live in urban

settings, have been exposed to a university-level education, reside in countries where the stock of immigrants is below the 27-country mean, and who live in relatively prosperous societies (with a GDP/capita above the cross-country average) are more likely to perceive immigrants as having a positive demographic impact, even when controlling for a host of factors at the micro and macro levels of analysis. Fitting statistics (between-country variance and log-likelihood statistic) suggest that, while this model is an improvement over the null (intercept-only), it is certainly not a superior fit over the baseline (Model 1), as indicated by the increase in the cross-country dispersion in the dependent's log-odds and the chi-square test for model improvement.

Discussion and Conclusions

        This study has examined the cross-country variation in public views about replacement migration in the 27 European Union member countries and has also identified some of the micro- and macro-level factors help to explain these differences. The findings from the multilevel logit model generally support the formal expectations that guided the analysis, which were based on the existing bodies of literature on replacement migration and anti-immigrant sentiment. In particular, the results underscore the enduring influence of three personal characteristics – childlessness, urban residence, and university-level education – on public perceptions of replacement migration. The role of urban residence and education concurs with the literature on anti-immigration sentiment, and all three variables are correlated with lower fertility levels as well. These results suggest that the conceptual frameworks regarding both perceived threat and socio-demographic behaviours and attitudes (especially regarding fertility) may inform research on public attitudes about demographic prospects and possible solutions.

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The results reported here also highlight the important role of two country-level attributes, the proportion of foreign nationals in a country and relative economic prosperity (GDP per capita). These findings are in line with previous results linking unfavourable macro circumstances to an increase in anti-foreigner attitudes. Living in a context in which immigrants are already numerous may also decrease the perceived need for (or increase the reservations regarding) further immigration to deal with population decline. Additionally, the ageing of one's own national population, a higher proportion of women in the population, higher relative levels of population growth, and more generous social welfare programs are related to more supportive attitudes toward replacement migration. However, these relations are attenuated in the full model, particularly with the addition of GDP per capita. Prior immigration levels (i.e., the current proportion of foreign nationals) and current economic level appear to provide the most leverage for understanding cross-national variations in such public attitudes. Thus, this study has provided rather strong evidence that European publics evaluate the demographic impact of immigrants and, more broadly, of immigration, not just on the basis of personal attributes, but also in response to relative economic prosperity and a sense of threat coming from a numerically important population of newcomers.

The continuous expansion of the European Union and the orchestrated political convergence of procedures regulating population movement (including but not limited to *extracommunitari*) may bring along a convergence of immigration attitudes across the continent. However, the direct response of the European publics with respect to replacement migration may be very different, considering the idiosyncrasies of the national contexts. A rapid decline in economic fortunes (something that European societies are all currently experiencing, albeit unevenly) may trigger renewed opposition toward immigrants and inclusive citizenship regimes.

In the most probable scenario, contingent upon optimistic economic projections in the EU common zone, immigration inflows will continue to the European countries, as will the adoption of policies for attracting labour force from the migrant-exporting countries. However, European publics may pose a fierce resistance to massive influxes of foreigners, as proponents of replacement migration seem to favour. The findings of this study on public responses to replacement migration are particularly relevant to the policy makers. Although certain segments of the population may express support for replacement migration, this is a minority view, and many Europeans find the idea of large-scale migration unappealing. This complements rather well the position of various demographers that immigration inflows alone cannot be relied on to efficiently address the side effects of population decline. As presented elsewhere, a combination of political measures aimed at increasing fertility rates (or, at least, promoting earlier fertility timing) and labour force participation and at reforming pension plans are needed (Bijak, Kupiszewska, and Kupiszewski 2008; Lutz, O'Neill, and Scherbov 2003). In turn, this set of measures would create a balance between generations, institute a sense of "intergenerational equity" (Lutz, O'Neill, and Scherbov 2003), and potentially reduce conflicts between the young and the old.

A further implication should also be acknowledged: given demographers' scepticism about replacement migration as a potential response to population decline, the extent of public support for this notion merits additional exploration. It is likely that urban residents with college-level educations may be more exposed to the media discussions and international debates about replacement migration and global migrations more generally. Their potential receptiveness to replacement migration should be tempered by the recognition that immigration alone may not provide a plausible answer to Europe's decline in population growth. Unfortunately, the limited

questions on attitudes about population policy and migration in this survey does not allow for further exploration of how people might interpret population concerns in the context of more general attitudes about immigrants and immigration policies. Furthermore, the correspondence between our findings and earlier research on anti-immigrant sentiment calls for a closer examination of these two domains. To what extent can immigration and population policy be considered apart from public attitudes about foreigners and existing anti-immigrant sentiments? What is the role of the news media, government agencies, and political outlets in shaping the discourse on population policy within the larger context of historical conflicts or antipathies?

The findings presented here, though important and intriguing, nevertheless suggest further possible refinements in model specification and additional hypotheses to test. To account for the unexplained cross-country differences in attitudes about replacement migration, future models should broaden their reach at both the micro- and macro-levels of analysis. Considering the linkage of immigration with the political arena, factors such as electoral outcomes or citizenship regimes may influence public attitudes in a given national context. Also, ethno-cultural heterogeneity is a factor deserving consideration in the future, as it reflects the relative openness of European societies. Both individual and societal attitudes about fertility and family issues should also be further explored, as preferences for one-child families or for childlessness may be increasing in many European countries (Goldstein, Lutz, and Testa 2003; Testa 2006, 2007). Last but not least, other country-level demographic indicators need to be taken into account, in order to more meaningfully encapsulate the demographic and labour force realities in each European society and their effects on public views about replacement migration.

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Table 1. Statistics from the Multilevel Logit Models Predicting the Probability of Endorsing Replacement Migration in 27 European Countries

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios
Fixed effects												
Constant	-1.354*** (0.110)	0.258	-1.360*** (0.115)	0.257	-1.356*** (0.109)	0.258	-1.353*** (0.103)	0.259	-1.357*** (0.107)	0.257	-1.361*** (0.113)	0.256
Individual-level												
Sex (male)	0.049 (0.045)	1.051	0.048 (0.045)	1.049	0.049 (0.046)	1.051	0.044 (0.045)	1.045	0.042 (0.045)	1.043	0.039 (0.045)	1.040
Age	-0.001 (0.002)	0.999	-0.001 (0.002)	0.999	-0.001 (0.002)	0.999	-0.001 (0.002)	0.999	-0.001 (0.002)	0.999	-0.001 (0.002)	0.999
Marital status (partner)	0.051 (0.047)	1.052	0.052 (0.047)	1.054	0.051 (0.047)	1.052	0.053 (0.046)	1.055	0.050 (0.047)	1.051	0.050 (0.046)	1.051
No children	0.135*** (0.039)	1.144	0.139*** (0.040)	1.149	0.137*** (0.039)	1.146	0.137*** (0.040)	1.147	0.140*** (0.040)	1.150	0.141*** (0.039)	1.151
Urban location	0.120** (0.040)	1.127	0.120** (0.040)	1.128	0.119** (0.040)	1.127	0.114** (0.041)	1.121	0.121** (0.039)	1.129	0.121** (0.039)	1.129
University education	0.375*** (0.046)	1.455	0.373*** (0.047)	1.453	0.379*** (0.046)	1.460	0.378*** (0.047)	1.459	0.379*** (0.047)	1.461	0.381*** (0.047)	1.464
Active in labour force	0.077* (0.045)	1.080	0.074 (0.044)	1.077	0.076* (0.045)	1.079	0.078* (0.045)	1.081	0.074 (0.044)	1.077	0.075 (0.045)	1.078
Country-level												
Population density	—		—		—		-0.001** (0.000)	0.999	—		-0.000 (0.025)	1.000

Table 1 (continued)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios	Log-odds	Odds ratios
Sex ratio	—		—		—		-0.051*** (0.013)	0.950	—		0.020 (0.025)	1.020
Fertility rate	—		—		—		0.215 (0.344)	1.239	—		-0.248 (0.507)	0.780
Population 65+ years	—		—		0.060* (0.033)	1.062	—		—		-0.002 (0.044)	0.998
Population growth	—		—		0.334** (0.131)	1.397	—		—		0.165 (0.212)	1.180
Foreign population	—		—		-0.015* (0.007)	0.985	—		—		-0.031* (0.013)	0.969
Social benefits	—		—		—		—		0.053*** (0.011)	1.054	0.039 (0.026)	1.040
Unemployment rate	—		0.040 (0.030)	1.041	—		—		—		0.023 (0.031)	1.023
GDP/capita	—		0.006** (0.002)	1.006	—		—		—		0.008** (0.003)	1.008
Random statistics[a]												
Country-level var., $\boldsymbol{u}_{0j}$	0.2229		0.2478		0.2098		0.1839		0.2059		0.2385	
Deviance, -2ln _L_	64531.518		64527.838		64525.998		64523.867		64523.519		64517.419	

Notes: Robust standard errors are reported in parentheses, below the log-odds. The contextual-level predicting variables are grand-mean centred.

[a] For the intercept-only (null) model, the country-level variance is 0.3364 and the deviance is 66231.847. For all models, the χ^2 test indicates that the cross-country variability in log-odds of endorsing replacement migration is statistically significant ($p = 0.000$).

* $p \le 0.05$; ** $p \le 0.01$; *** $p \le 0.001$ (one-tailed tests)

Figure 1. Proportions of Respondents Who Endorse Replacement Migration in 27 European Countries
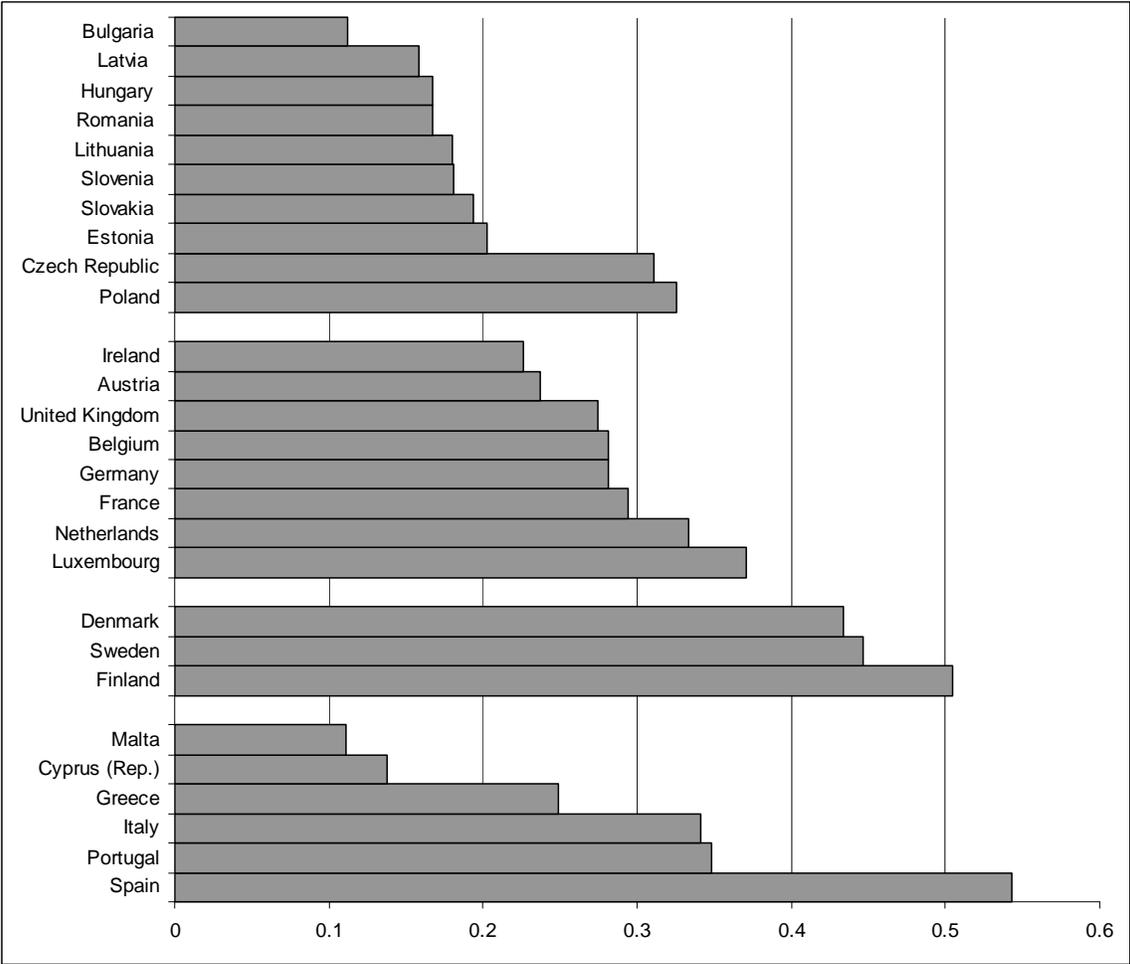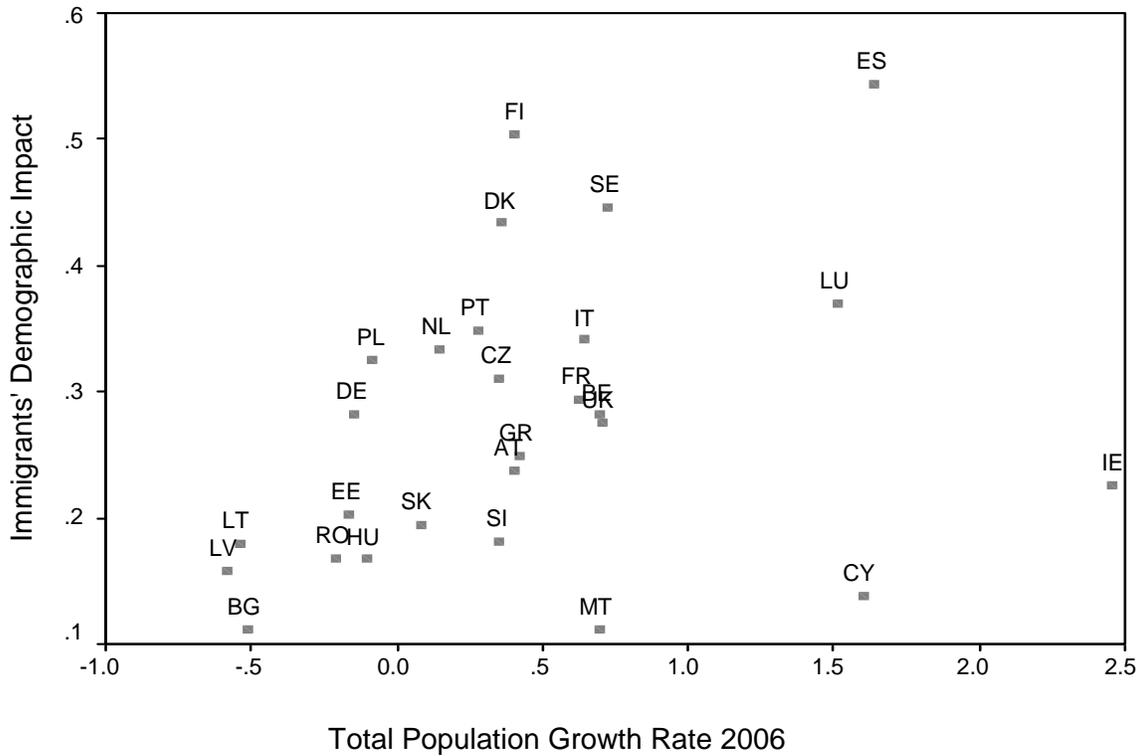
Figure 2. Public Attitudes about Replacement Migration by Country's GDP per Capita
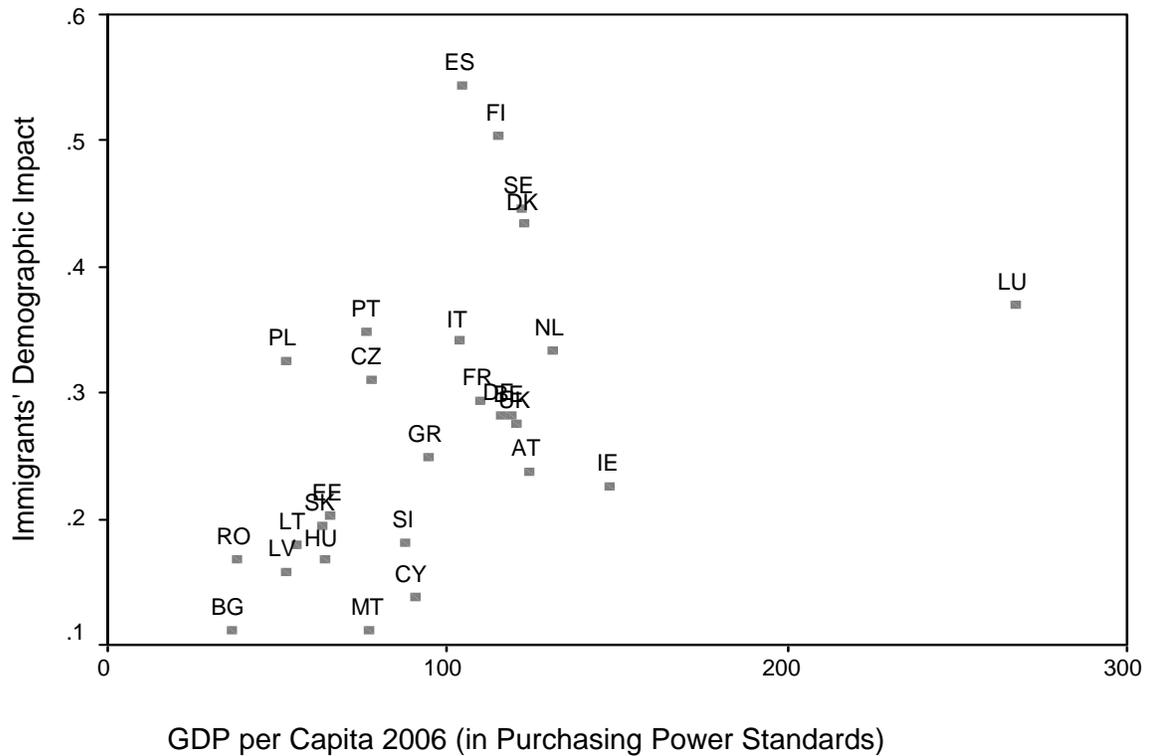
Note: AT = Austria; BE = Belgium; BG = Bulgaria; CY = Cyprus (Republic); CZ = Czech Republic; DK = Denmark; EE = Estonia; FI = Finland; FR = France; DE = Germany; GR = Greece; HU = Hungary; IE = Ireland; IT = Italy; LV = Latvia; LT = Lithuania; LU = Luxembourg; MT = Malta; NL = Netherlands; PL = Poland; PT = Portugal; RO = Romania; SK = Slovakia; SI = Slovenia; ES = Spain; SE = Sweden; UK = United Kingdom.

Figure 3. Public Attitudes about Replacement Migration by Country's Annual Population Growth Rate

Note: AT = Austria; BE = Belgium; BG = Bulgaria; CY = Cyprus (Republic); CZ = Czech Republic; DK = Denmark; EE = Estonia; FI = Finland; FR = France; DE = Germany; GR = Greece; HU = Hungary; IE = Ireland; IT = Italy; LV = Latvia; LT = Lithuania; LU = Luxembourg; MT = Malta; NL = Netherlands; PL = Poland; PT = Portugal; RO = Romania; SK = Slovakia; SI = Slovenia; ES = Spain; SE = Sweden; UK = United Kingdom.