

# **How Should the Government Treat Asylum Seekers?**

## **The Role of Labour Market Vulnerability and Migration in Europe**

Pre-Proof Version

Published in *Social Science Research*:  
<https://doi.org/10.1016/j.ssresearch.2021.102666>

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**Abstract:** Is labour market vulnerability associated with harsher preferences on asylum-seeking policy? If so, how might the size of the existing foreign-born population condition this effect? We unpack these dynamics across 20 European countries using 2014 ESS and EU-SILC data. In doing so, we examine the relevance of labour market vulnerability both directly and in combination with: individual-level exposure to people of a different race or ethnicity; and the perceived or actual size of the foreign-born population. Results suggest that exposure to labour market risk is associated with a preference for harsher treatment, but that this relationship is driven by respondents with little to no interactions with the existing minority population. We also find that labour market vulnerability is associated with higher (lower) preferred severity in countries with a large (small) presumed foreign-born population. The actual size of the foreign-born population, by contrast, does not appear to matter.

**Keywords:** asylum seeking; public opinion; dualization; contact; resource competition.

**Acknowledgements:** This paper benefitted from helpful comments from the Editors of *Social Science Research* and our anonymous reviewers.

## 1. Introduction

As borders across Europe have become increasingly porous, those seeking asylum have fled regional conflict, despotic governments, economic deprivation, and environmental degradation (Onraet et al., 2021; Wike et al., 2016). In turn, this inflow has fueled concerns from native-born populations about the legitimacy and deservingness of asylum seekers, as well as state capacity to accept and integrate refugees (P. Murray & Longo, 2018; Pantti & Ojala, 2019).

This article contributes to existing scholarship investigating the factors shaping attitudes toward asylum seeking (e. g. Bolt & Wetsteijn, 2018; Kotzur et al., 2019). Building on past work exploring the moderating effects of the real or perceived size of the foreign-born population at the national or local level, we provide a large-scale analysis to suggest that *labour market vulnerability* – defined as relative exposure to unemployment, involuntary part-time employment, and fixed-term employment (see Schwander & Häusermann, 2013) – may shape attitudes toward the treatment of asylum applications. We interrogate whether and how labour market vulnerability may be linked to these preferences both directly and in combination with (perceived) exposure to diversity via: (a) individual-level exposure to people of a different ethnicity; and (b) the perceived or actual size of the foreign-born population in a given country.

First, we suggest that exposure to labour market risk, in conjunction with ascriptive characteristics and human capital, is likely to shape preferences for how severe governments should be in their handling of asylum seeker applications. Past work has highlighted a variety of individual-level characteristics associated with anti-asylum seeker stances (e.g. Gerhards et al., 2016; Hager & Veit, 2019); yet it is unclear whether and to what extent labour market vulnerability matters above and beyond *momentary* economic circumstances (e.g. employment status or income levels at the time of a survey's fielding). Given work highlighting the long-term

attitudinal effects of labour market precarity (e.g. Emmenegger et al., 2012; Pardos-Prado, 2020; Pardos-Prado & Xena, 2019), this is an important omission.

Second, we examine how contextual dynamics tied to the existing foreign-born population may shape the relationship between labour market vulnerability and the preferred treatment of asylum seeker applications. While scholarship in support of a ‘contact hypothesis’ has emphasized the importance of personal interaction with minorities as a means to foster out-group trust and solidarity (Allport, 1954; Pearson-Merkowitz et al., 2016), it is less clear whether and how these factors affect policy preferences on asylum seeking (see Abdelaaty & Steele, 2020; De Coninck, 2020). Unpacking how exposure to diversity might condition the impact of labour market vulnerability is therefore crucial – and similar outstanding questions surround the relevance of either the actual or assumed size of the national-level foreign-born population (e.g. Hjerm, 2007; Gorodzeisky & Semyonov, 2020). We therefore explore how the relationship between labour market vulnerability and attitudes towards asylum seekers may be affected by contact with ethnic minorities and the real or perceived size of the foreign-born population.

We carry out this analysis on native-born, non-retired respondents from twenty European countries. We do so by combining data from a special module on migration in the 2014 wave of the European Social Survey (ESS, 2014) with micro-level data from European Union Statistics on Income and Living Conditions (Eurostat, 2015).

Three major findings emerge from the investigation. First, greater labour market vulnerability is associated with preferences for harsher treatment of asylum seekers, even controlling for related factors such as income, education, and contract type. Second, exposure to minorities is associated with not only a direct impact on preferences (with greater exposure reducing preferred severity), but also an interactive one: after controlling for national-level

factors, we find that labour market vulnerability is, on average, associated with harsher preferences only among individuals with little to no exposure to minority populations. Third, although we find no evidence to suggest that the actual size of the foreign-born population matters, labour market vulnerability is associated with greater preferred severity in countries with a large presumed migrant population, while the reverse relationship is found in countries with a small presumed migrant population.

Results therefore suggest that labour market vulnerability is associated with harsher attitudes toward asylum seekers, but that this relationship is conditioned by contact with minorities and the *assumed* size of the national foreign-born population. These findings are especially pertinent given the spread of precarious employment and increasingly dualized labour markets across Europe, as well as ongoing public concern about the integration of minority populations (Emmenegger et al., 2012; Gash & McGinnity, 2007).

## **2. Background**

Asylum seekers are typically defined as persons seeking protection because they fear persecution or have experienced violence or human rights violations, but who have not yet been legally recognized as a refugee (Amnesty International, 2021). Asylum seeking is a human right, but those who seek asylum are often caught between discursive tropes of variously being considered a ‘threat’, a ‘victim’, and/or a security problem that challenges the ‘natural’ or ‘stable’ order between nations (Sajjad, 2018). Yet, while scholars note that European media and public discourse increasingly rely on legal categorizations for newcomers to distinguish between those deemed legitimate and those deemed illegitimate (De Coninck, 2020; Will, 2018), questions remain about which precise factors shape individual preferences on asylum-seeking policy.

We begin by laying out research on the individual- and national-level determinants that may shape attitudes toward asylum seeker policy before then delineating the related hypotheses that our study will investigate. While our analysis draws from the literature on anti-immigrant sentiment as a starting point for discussions, we note areas of incomparability when we narrow the focus to research focused on attitudes towards asylum seeking; although attitudes toward immigrants and asylum seekers are typically correlated, they are certainly not coterminous (e.g. Abdelaaty & Steele, 2020; De Coninck, 2020; K. E. Murray & Marx, 2013). Our focus therefore is on theoretical connections that may help us to understand the relationship between labour market vulnerability and attitudes toward asylum seekers.

### *2.1 The Potential Role of Labour Market Vulnerability*

The literature suggests that attitudes toward asylum seeking are in some cases shaped by similar individual-level determinants as attitudes toward immigration (Bansak et al., 2016; Facchini & Mayda, 2012): in both scenarios, economic self-interest (egocentric economic concerns) are presented as an important factor shaping policy preferences on whether and how to allow foreign-born individuals into the country (Gravelle, 2019; Sides & Citrin, 2007; Wike et al., 2016).

Reflecting this, human capital and personal characteristics are often highlighted as playing a key role in explaining public opinion. Much of the literature suggests that low-skilled and low-educated native-born citizens, as well as those suffering from greater labour market vulnerability (i.e., ‘outsiders’), disproportionately harbour anti-immigrant attitudes and favour reduced immigration (Facchini & Mayda, 2012; Kevins & Lightman, 2020; Paas & Halapuu, 2012). A key theme in much of this literature is that vulnerable workers are more likely to worry:

(1) that their labour market position will be further worsened by migrants, especially since newcomers tend to be deskilled upon arrival in their new country; and (2) that migrants will be a net fiscal burden on the state, thereby further weakening vulnerable workers' (after-tax) income and access to state services (e.g. Im, 2021; Lightman & Good Gingrich, 2018; Taylor-Gooby et al., 2019).

The precise relationship between precarity and anti-immigrant sentiment is difficult to parse out, however, and research on the role of vulnerability has come to mixed conclusions. On the one hand, Abdelaaty and Steele (2020), for example, find that higher income and higher occupational status are associated with increased support for immigration; and Pardos-Prado and Xena (2019) reveal that skill specificity (and hence a lack of occupational transferability) is an important predictor of anti-immigrant attitudes. On the other, Dancygier and Walter (2015) find that anti-immigrant sentiment is not dominated by labour market concerns in scenarios where immigrant workers are not perfect substitutes for native-born labour; while Hanmueller and Hiscox (2010) find that in the U.S., both low-skilled and highly skilled natives strongly prefer high-skilled immigrants over low-skilled ones – suggesting that concerns unrelated to job market competition are playing an important role.

Findings are mixed, then, and further research on the topic is clearly warranted. What is more, almost all of the literature is focussed on migrants *writ large*. Yet in considering how these dynamics might play out vis-à-vis asylum seekers, it seems reasonable to assume that certain anxieties highlighted in the literature on anti-immigrant sentiment (e.g., effects on taxation and the welfare state) may shape asylum-seeking policy preferences as well (e.g. Tartakovsky & Walsh, 2020). Indeed, political discourse on the cost of asylum seekers to state coffers and their use of social programmes has been widespread, suggesting that concerns about reduced services

and state funding may be especially important (Greussing & Boomgaarden, 2017; Kevins & van Kersbergen, 2019). At the same time, however, asylum seekers in particular often face strong barriers to labour market access and are more likely to themselves suffer from ‘hyper-precarity’ (Schennер et al., 2019). As a result, competition over employment is unlikely to be the key mechanism shaping native attitudes; instead, preferences are more likely to be conditioned by relatively abstract concerns about the ‘cost’ of asylum seekers and their impact on state budgets and social programmes.

Further complicating matters, the impact of resource competition on attitudes toward asylum seeking is complexified by additional considerations that may muddy the relationship: e.g., popular conceptions on whether asylum seekers ‘deserve’ and/or are ‘truly’ in need of protection (Bansak et al., 2016; Erisen et al., 2020; Innes, 2010). Studies of public opinion nevertheless typically conclude that economic considerations do play a role, especially as asylum seekers who migrate for economic reasons are thought of less favourably than those who do so due to political, religious, or ethnic persecution (e.g. Holzberg et al., 2018; Onraet et al., 2021). Similarly, although the limited research on attitudes towards asylum seekers tends to find a negligible effect of individual income, it does suggest that less-educated individuals harbour greater concerns about asylum-seeking populations (e.g. Gerhards et al., 2016; Hager & Veit, 2019). As with anti-immigrant sentiment, then, some segments of the native-born populations may develop asylum-seeking policy preferences that are in part driven by anxieties about resource competition.

## *2.2 Potential Conditioning Factors*

Alongside the above individual-level determinants, there are strong reasons to believe that context may condition the impact of labour market vulnerability. Our starting point here is research suggesting that pre-existing ethnic diversity may be even more important for attitudes toward asylum seekers than it is for attitudes toward immigrants (Abdelaaty & Steele, 2020; Steele & Abdelaaty, 2019). Here, we focus on two potential conditioning factors tied to the existing foreign-born population: individual-level, neighbourhood-based exposure to ethnic minority populations; and the real or perceived size of the foreign-born population in an individual's country of residence.

First, studies on contact frequency (e.g. Finseraas & Kotsadam, 2017; Kotzur et al., 2019) highlight a strong potential role for exposure to minority populations, despite some debate about the direction of the effect. On the one hand, some scholars find evidence of a negative relationship between contact and attitudes toward migrants (Abdelaaty & Steele, 2020; Bratti et al., 2017; Gessler et al., 2021) – providing support for Blumer's (1958) group threat theory, whereby 'others' are seen as infringing on national identity or the dominant way of life. Yet most of the existing empirical research supports Allport's (1954) formative theory on the potential positive benefits of contact, emphasising the importance of personal interaction with minorities as a means to foster out-group trust and solidarity (see Heizmann & Huth, 2021); Crawley et al. (2019), for instance, find that ethnic diversity at the local level is associated with more supportive attitudes towards asylum seekers.

Second, research suggests that the size of the national foreign-born population may shape attitudes toward migrants as well – though it may be that actual foreign-born population sizes are less important than perceived ones (c.f. Hjerm, 2007; Young et al., 2018). This distinction is crucial, since the gap between perception and reality regarding immigration is often quite large:

in a study looking at the UK, for example, Duffy (2014) notes that the foreign-born population size is perceived to be over twice as large as it is in reality, and that the proportion of asylum seekers among migrants is dramatically over-estimated. The assumed size of the foreign-born population therefore seems particularly likely to matter (see, for example, Gorodzeisky & Semyonov, 2020) – though the evidence on whether (actual or perceived) foreign-born population sizes shape attitudes on asylum seeking in particular is much scantier. Research on the Netherlands, however, offers some support for the role of assumed migrant levels: Bolt and Wetsteijn (2018) find that the higher people estimated the percentage of the foreign-born population at the national level, the less likely they were to express support for a generous judgement of asylum applications.

Important questions remain, however, as to how the effect of labour market vulnerability may be conditioned by these contextual factors. Building from existing theoretical and empirical work, we develop two propositions on how these dynamics may play out in practice.

First, we suggest that *exposure to ethnic diversity at the neighbourhood level may decrease the impact of labour market vulnerability on policy preferences on asylum seeking*. Although proximity could also conceivably heighten resource competition, we draw from research suggesting that direct labour market competition between vulnerable native-born individuals and migrants is less of an issue than might be assumed (Pardos-Prado, 2020). Indeed, this argument seems especially applicable to asylum seekers, given the added hurdles to labour market access that they tend to face (see, for example, Schenner & Neergaard, 2019). Instead, we argue that: (a) more abstract concerns about the broad fiscal effects of asylum seeking are key (e.g. Hopkins, 2011; Tartakovsky & Walsh, 2020); and (b) insofar as anxieties about resource competition are assuaged by familiarization with minorities and by opportunities for positive

interactions, as the contact hypothesis suggests (Allport, 1954; Heizmann & Huth, 2021), exposure to ethnic minorities may improve attitudes toward asylum seeking. More frequent contact may thus be associated with a weaker relationship between labour market vulnerability and (harsher) policy preferences.

Second, we argue that *the (real or perceived) size of the foreign-born population may increase the impact of labour market vulnerability on policy preferences on asylum seeking*. Once again the key consideration here is heightened concerns about resource competition and drains on social services by newcomers, which we expect to be strongest among labour market ‘outsiders’. But whereas individual-level contact has been linked to reduced anxieties, country-level diversity may have the opposite effect: reflecting past research, the argument here is that Allport’s (1954) contact theory likely applies at lower geographical levels, while Blumer’s (1958) group threat theory applies at higher, more abstract geographical level – such as the country as a whole (see, for example, Bolt & Wetsteijn, 2018; Weber, 2015). A greater (perceived) size of the foreign-born population may therefore exacerbate worries about resource competition, particularly for individuals who are less skilled and/or more precarious (e.g. Gorodzeisky & Semyonov, 2020; Kevins & Lightman, 2020). We thus anticipate that vulnerable individuals in countries with a larger (presumed) minority population may be more likely to associate the foreign-born with a net fiscal burden – with a corresponding increase in concerns that asylum seeker populations will further weaken vulnerable native workers’ access to state services, regardless of whether or not that might actually be the case (e.g. Im, 2021; Lightman & Good Gingrich, 2018; Taylor-Gooby et al., 2019).

### 2.3 Hypotheses

Our baseline hypothesis is that higher levels of labour market vulnerability will be associated with a preference for the harsher treatment of asylum seekers. We hypothesize that people who are more economically vulnerable may, on average, be more inclined to take a restrictive stance on asylum-seeking policy, as exposure to labour market risk may increase worries about resource competition and engender a more nativist approach to all forms of migration (Facchini & Mayda, 2012; Kevins & Lightman, 2020). The central focus here is on the role of positional ‘outsiderness’, which we expect will matter above and beyond an individual’s broader economic circumstances at a given moment.

H1: Increased labour market vulnerability will be associated with a preference for the harsher treatment of asylum seeker applications.

We also expect that this relationship will be conditioned by contextual factors linked to exposure to the existing foreign-born population. First, the literature broadly suggests that the frequency of interactions with minorities is likely to matter (c.f. Gessler et al., 2021; Kotzur et al., 2019). As highlighted above, past research suggests that contact may play a role in conditioning the impact of labour market vulnerability: individuals in more diverse areas may be more supportive of asylum seekers if past experiences have assuaged concerns about the effects of ‘foreigners’ on resource competition; while those with minimal or no contact may be more susceptible to negative discourse about the impact asylum seekers have on state finances and social services (e.g., Crawley et al., 2019). If this is indeed the case, then higher exposure frequency may be associated with a decreased impact of labour market vulnerability on preferred severity.

H2: The impact of labour market vulnerability on preferences toward the treatment of asylum seeker applications will decrease as exposure to minorities increases.

Second, the literature also leads us to hypothesize that the size of the existing foreign-born population at the national level is likely to play a role. Past work suggests that larger foreign-born populations can increase anxieties among the native-born population – though it may be that assumed rather than actual levels of migrant stock are what really matter (e.g. Gorodzeisky & Semyonov, 2020). In teasing out this potential relationship, we follow past work (e.g. Hjerm, 2007) and investigate the potential relevance of: (1) individual-level assumptions about the size of the foreign-born population; (2) the (mean) perceived migrant stock in a given country; and (3) the actual migrant stock in a given country. Insofar as higher levels of labour market vulnerability increase the perception of economic threat from migrants (see, for example, Bolt & Wetsteijn, 2018; Weber, 2015), one or more of these measures of the (perceived) foreign-born population size may exacerbate the effect of vulnerability on policy preferences vis-à-vis asylum seeking.

H3: The effect of labour market vulnerability on preferences toward the treatment of asylum seeker applications will, on average, be greater among individuals who assume a larger national foreign-born population size.

H4a: The effect of labour market vulnerability on preferences toward the treatment of asylum seeker applications will be greater in countries where the *perceived* size of the foreign-born population is larger.

H4b: The effect of labour market vulnerability on preferences toward the treatment of asylum seeker applications will be greater in countries where the *actual* size of the foreign-born population is larger.

### 3. Data

The study's analysis is based primarily on the seventh round of the European Social Survey, which was fielded in 2014-2015 and included a special module on migration (ESS, 2014). We restrict our investigation to the twenty European countries<sup>1</sup> that also participated in that year's Eurostat Income and Living Conditions survey, since these data are used to construct our measure of labour market vulnerability.

Given the focus of our study, we limit our sample to native-born, non-retired respondents with a recorded International Standard Classification of Occupations code (as these data are central to our labour market vulnerability measure). The analysis thus includes 15,697 respondents. Appendix Figure 1 provides a breakdown of respondent distribution, both within and across countries. In addition to specifying country sample sizes (which range from 340 in Slovenia to 1453 in Germany), the figure also includes density plots illustrating the distribution of labour market vulnerability among respondents who reported limited, infrequent, or frequent exposure to minorities (see below for a breakdown of these measures).

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<sup>1</sup> Note that Estonia is included in our analysis, despite the fact that the country's income decile data does not reflect the correct income decile brackets. Excluding Estonia, however, does not meaningfully impact our results.

### *3.1 Dependent Variable*

For our dependent variable, we use a question assessing preferred government severity in the treatment of asylum seeker applications, hereafter referred to as ‘preferred severity’. The introduction to the survey item reads as follows: ‘Some people come to this country and apply for refugee status on the grounds that they fear persecution in their own country’. Note that the wording thus attempts to focus respondent attention on refugees fleeing due to security (rather than economic) concerns. Respondents are then asked to indicate their agreement or disagreement with the statement that ‘the government should be generous in judging people’s applications for refugee status’. Potential responses range from 1 (‘Agree strongly’) to 5 (‘Disagree strongly’), and also include a ‘Don’t know’ option (excluded from the analysis). The weighted mean response to this question is 2.75, with a standard deviation of 1.11.

### *3.2 Explanatory Variables*

The key individual-level explanatory variables that we investigate are labour market vulnerability interacted with exposure to ethnic or racial minorities and the perceived or actual size of the foreign-born population within the respondent’s country.

We measure labour market vulnerability using an adapted version of the ‘outsiderness’ scores developed by Schwander and Häusermann (2013) and employed in a variety of studies (see Schwander, 2020). In brief, this approach uses micro data from the European Union Statistics on Income and Living Conditions (EU-SILC) dataset (Eurostat, 2015) to calculate relative exposure to unemployment, involuntary part-time employment, and fixed-term

employment.<sup>2</sup> This involves: (1) calculating the prevalence of atypical employment and unemployment within the country's labour force as a whole; (2) calculating prevalence of atypical employment and unemployment for individuals with various 'risk profiles';<sup>3</sup> (3) subtracting the risk profile rates from those of the general labour force within that country; and (4) averaging the three (standardized deviation) scores for unemployment, involuntary part-time employment, and fixed-term employment.

The resulting continuous measure of labour market vulnerability is then applied to the ESS dataset based on respondents' occupational and demographic profiles. In the absence of panel data, this approach allows us to reflect varying degrees of vulnerability – avoiding a binary divide between insiders and outsiders (as is sometimes done, for example, using employment status). Overall, estimated vulnerability varies considerably across profiles and countries, ranging from highs of 1.95 (older female blue-collar workers in Belgium) and 1.80 (younger female blue-collar workers in Spain) to lows of -1.78 (older female capital accumulators in Spain) and -1.77 (older male capital accumulators in Spain); examples of groups with scores of approximately 0 – that is, exhibiting average vulnerability within a given country – include younger female low service functionaries in Finland and older male mixed service functionaries

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<sup>2</sup> We use the EU-SILC micro-level data for this since it has a much larger per-country sample size than the ESS (typically between 10000 and 40000 in the EU SILC, versus between 1000 and 3000 in the ESS). This allows us to calculate more reliable estimates of risk exposure across our subgroups.

<sup>3</sup> The 'risk profiles' divide the sample based on different occupational and demographic characteristics – namely, occupational categories (blue collar workers, low service functionaries, mixed service functionaries, socio-cultural professionals, and capital accumulators), gender (male and female), age (over and under 40), and, in our study, place of birth (native and foreign) – which in Europe serve as key 'socio-structural' determinants of labour market vulnerability (see Emmenegger et al., 2012, Schwander and Häusermann, 2013, Häusermann et al., 2016). The occupational categories are drawn from work by Kitschelt and Rehm (2006) and Oesch (2006) and are based on recorded International Standard Classification of Occupations codes. Note that to maximize the number of countries included in the analysis, however, we simplify the classification by using the two- rather than four-digit ISCO codes. Doing so allows us to limit the number of cases that must be deleted due to missing ISCO data. (As it is, 478 cases are lost from the censored sample due to missing ISCO codes - with the number of missing observations ranging from 2 cases, in the Netherlands, to 109 cases, in Germany.)

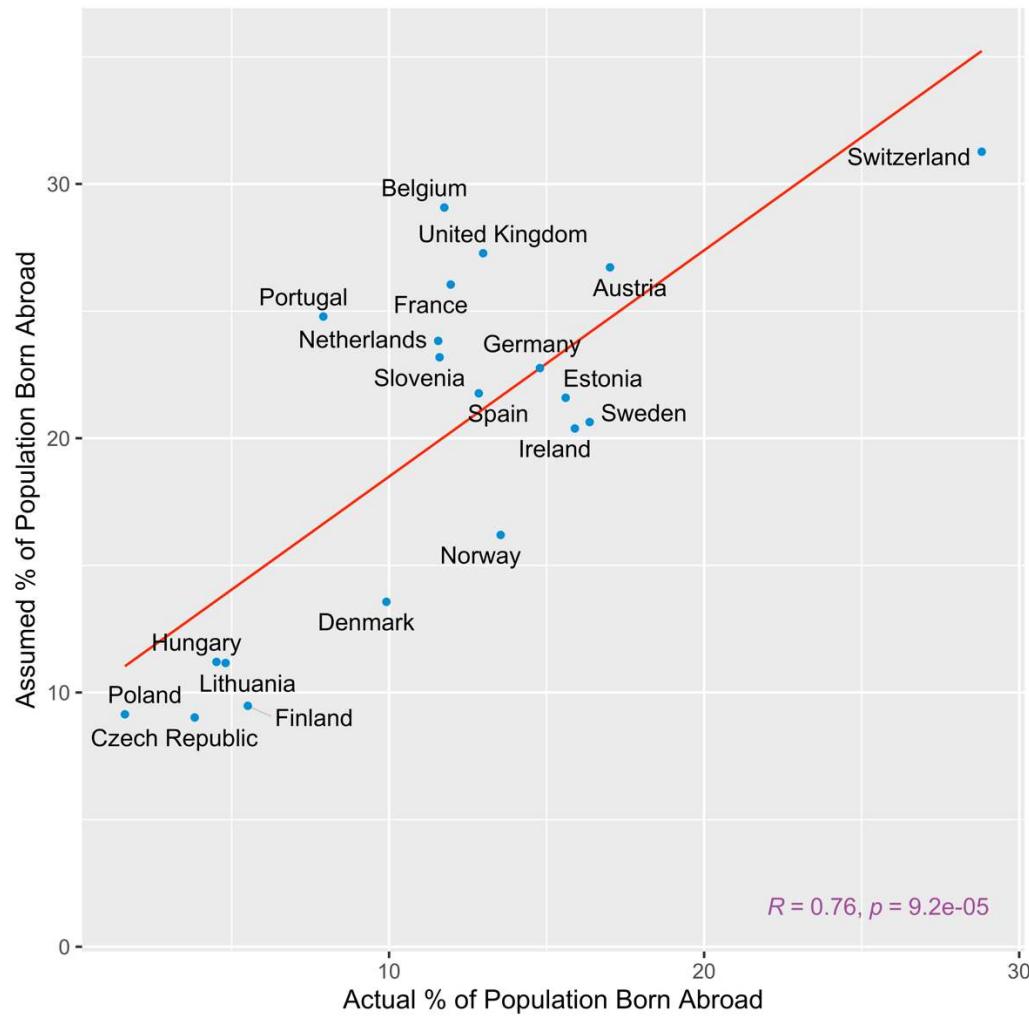
in Ireland. Appendix Figure 1 illustrates the distribution of these scores across countries, broken down by frequency of exposure to minorities.

Exposure frequency is assessed using responses to the question ‘how often do you have any contact with people who are of a different race or ethnic group from most [country] people when you are out and about?’ The questionnaire further specifies that ‘this could be on public transport, in the street, in shops or in the neighbourhood’ and that ‘any contact should be included, whether verbal or non-verbal’. Response options range from ‘never’ to ‘every day’ on a seven-point scale, which we recode into three categories: almost no exposure (less than once a week; 36.9% of the sample); infrequent exposure (between once a week and several times a week; 29.3%); and frequent exposure (every day; 33.8%).

Finally, perceived size of the foreign-born population is measured using the question ‘Out of every 100 people living in [country], how many do you think were born outside [country]?’<sup>1</sup>, with respondents who are unsure invited to ‘give their best estimate’. The weighted mean response is 21.5, with a standard deviation of 16.7 and an inter-quartile range between 10 and 30.

To assess the relevance of our national-level explanatory variables, we then add an interaction with either the perceived size of the foreign-born population (calculated using the ESS data as the weighted country mean) or the actual percentage of migrant stock (data from UN, 2015). As Figure 1 indicates, although these two variables are correlated ( $r = 0.76$ ;  $p < 0.001$ ), the mean assumed size of the foreign-born population is consistently larger than actual migrant stock – with mean perceived levels, on average, just over two times greater than mean actual levels (mean perception gap = 104%). Appendix Figure 2, in turn, provides an initial descriptive illustration (without controls) of the potential interactive relationship between our three key variables vis-à-vis preferred severity toward asylum seekers, via group means.

Figure 1: Actual versus assumed % of population born abroad, by country (with line of best fit)



Note: Calculations include post-stratification survey weights.

### 3.3 Control Variables

Our models incorporate the standard demographic, human capital, and labour market-related controls described in the literature (e.g. Bansak et al., 2016; Facchini & Mayda, 2012; Paas & Halapuu, 2012). At the individual level, these include demographic and – crucially – labour-market related variables, so as to ensure that the ‘outsiderness’ measure assesses the effect of vulnerability *per se* rather than simply employment status. Our individual-level controls thus include: education, based on the International Standard Classification of Education and divided

into three categories (less than upper secondary, upper secondary or post-secondary non-tertiary, and tertiary education); household income decile; household size (to capture variation that could be important for the real-world meaning of household income); gender; age and its square (to account for potential non-linearity); trade-union membership; employment status (unemployed, self-employed, part-time employed, non-employed, and fixed-term employed); a binary variable indicating individuals with married or common-law status; a binary variable for religiosity (with ‘1’ indicating church attendance at least once a month); a binary variable denoting residence in a city or its suburbs; a binary variable for self-declared ethnic minority status; a control for the presence of racial and ethnic minorities in a respondent’s area (recorded as ‘almost nobody’, ‘some people’, and ‘many people’); and self-placement on the left-right ideological spectrum (from 0 ‘left’ to 10 ‘right’).<sup>4</sup>

Models with national-level variables then add: the measure of migrant population size not included in the main interaction effect (i.e., actual migrant stock when assumed migrant stock is in the interaction, and vice versa); GDP per capita; the unemployment rate; and social expenditure (as a percentage of GDP) on unemployment benefits.<sup>5</sup> Online Appendix Table 1 provides weighted summary statistics for all variables included in our analysis.

#### 4. Results

Our empirical investigation proceeds in two stages. First, we examine the individual-level explanatory variables on their own, using generalized least squares models with country fixed

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<sup>4</sup> We exclude a control for anti-immigrant sentiment, as the index is correlated with our dependent variable ( $r = 0.47$ ).

<sup>5</sup> We also ran additional robustness checks rotating through controls for national-level controls for unemployment rates among the foreign born, government ideology (measured by cabinet share), and percentage changes in migrant stock. In no instance do results meaningfully differ.

effects. We then add in the national-level variables, via a set of nested models based on maximum likelihood estimation and incorporating population and post-stratification weights. With only twenty countries in the dataset, we analyse the potential interaction between labour market vulnerability and our other key explanatory variables in separate multilevel models (i.e., with different models for (1) country-mean assumed percentage of the foreign-born population and (2) the foreign-born population as a percentage of the population).

All models are built step-wise to minimize the risk that the results are an artefact of specific modelling choices regarding included controls (see the Appendix for full regression tables). As our key findings are based on interaction effects that are difficult to unpack via regression tables alone, we present results by graphing predicted values and marginal effects.<sup>6</sup> Note that predicted value plots include 83.5% confidence intervals, in order to illustrate the points at which values are significantly different at the  $p < 0.05$  confidence level (see Bolsen and Thornton 2014); predicted marginal effect plots, in turn, include 95% confidence intervals (and thus also illustrate significance at the  $p < 0.05$  confidence level). In all instances, we exclude extreme values of our explanatory variables (those in the lowest and highest five percentiles) from the illustrations.

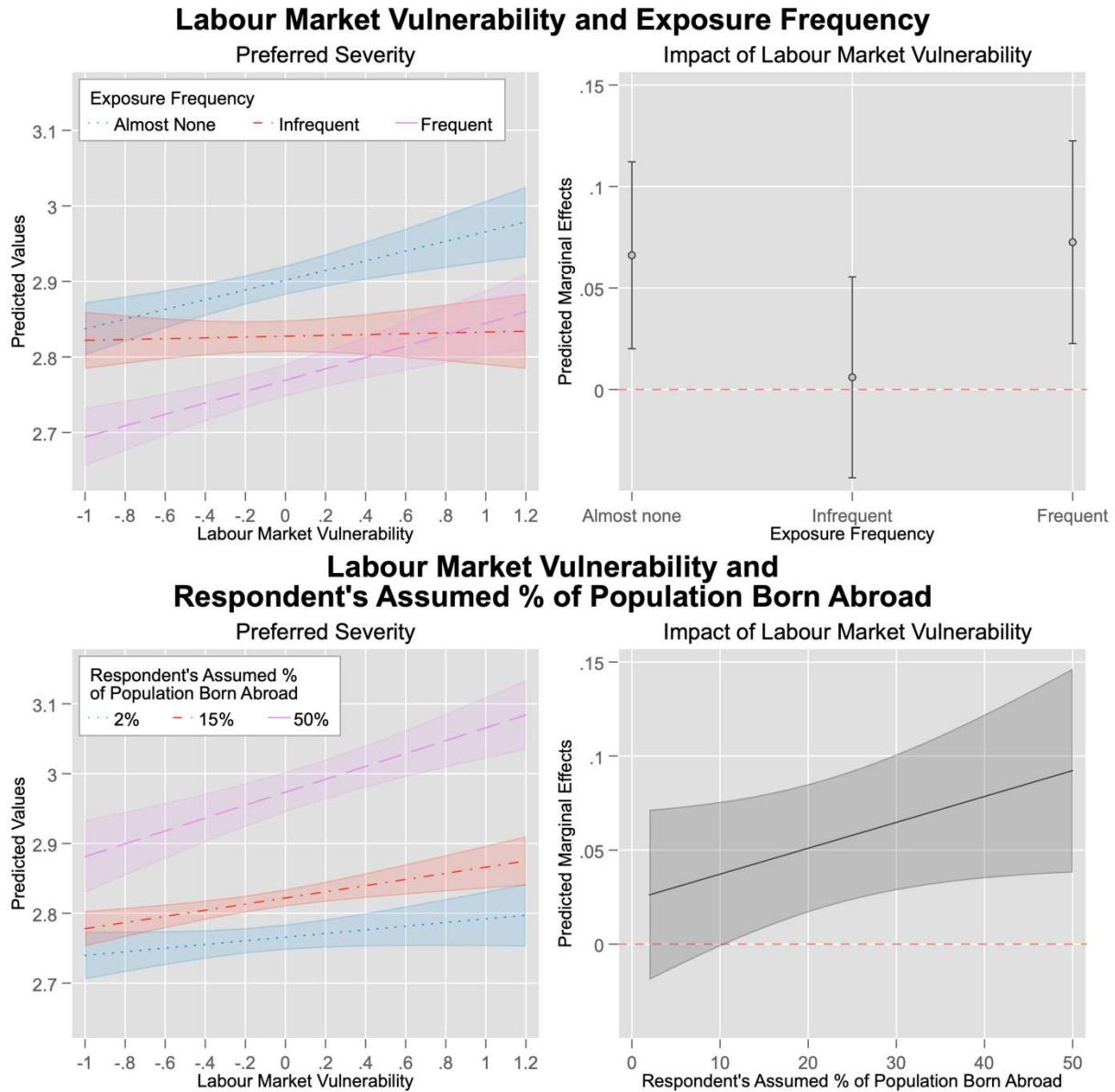
For the first stage of the analysis, we restrict our investigation to individual-level factors. Figure 2 presents the predicted values (left panels) and marginal effects (right panels) of labour market vulnerability broken down by exposure frequency (top panels) or assumed size of the foreign-born population (bottom panels). The related regression table is presented in Appendix Table 1 (see Model 6), though centred variables are de-centred here for ease of interpretation.<sup>7</sup>

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<sup>6</sup> Figures drawn using various packages (Bischof, 2017; Slowikowski, 2020; Wickham, 2016; Wilke, 2020).

<sup>7</sup> Note also that, as the final column of Appendix Table 1 indicates, findings do not appear to be driven by any particular country in the sample.

Figure 2: Predicted severity and marginal effects, from individual-level model



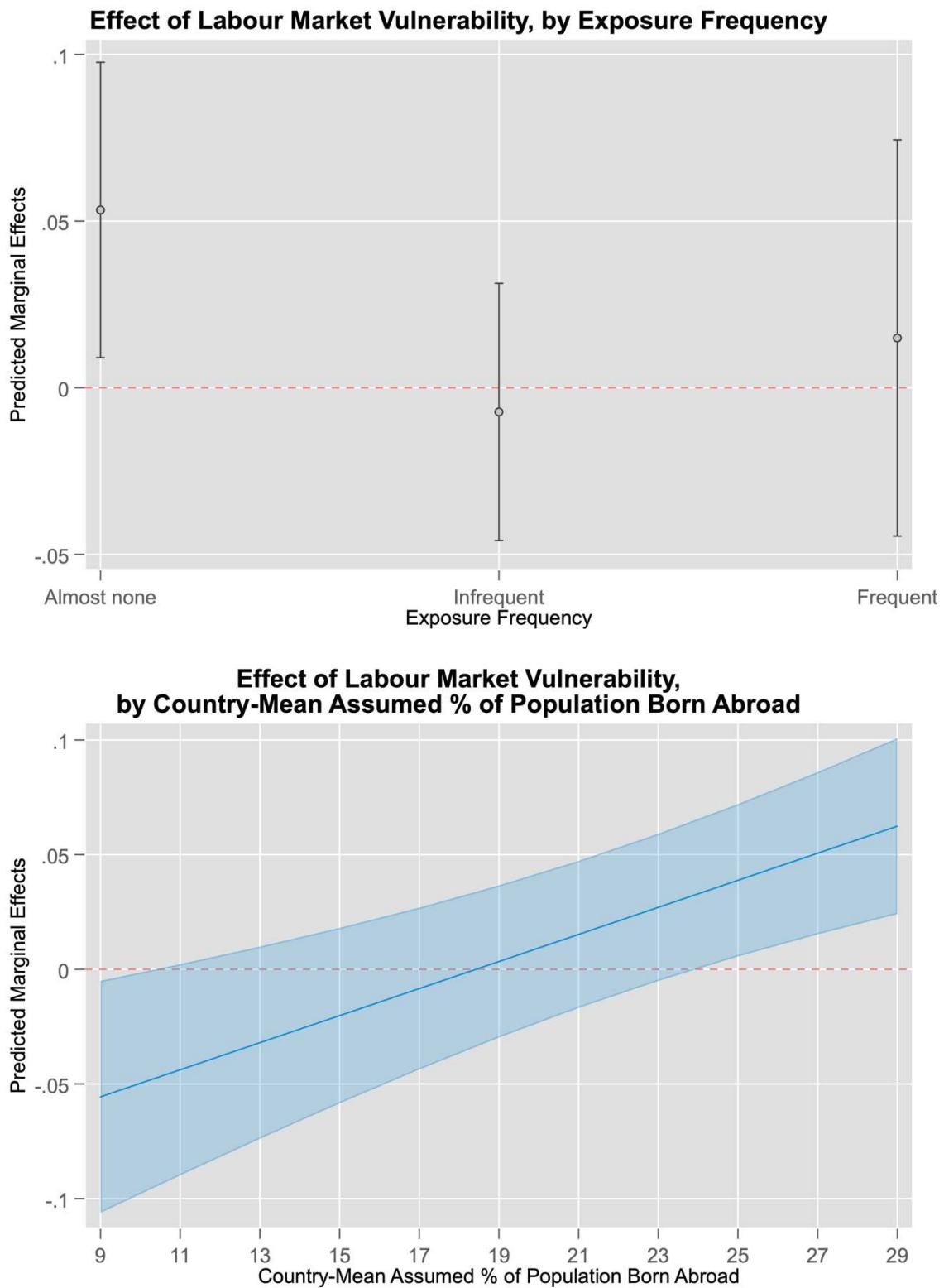
Turning first to the interaction between labour market vulnerability and exposure to ethnic or racial minorities, results suggest that vulnerability is correlated with a preference for the harsher treatment of asylum seekers within two groups: those who have very little exposure (i.e., less than once a week) and those who have a lot of exposure (i.e., at least once a day) to minority populations. We find no evidence of this relationship, by contrast, among respondents with middling levels of exposure (i.e., once or several times a week). Frequent interactions with

minorities are nevertheless broadly associated with lower levels of desired severity overall (in line with contact theory), as illustrated by the predicted values plot. Taken together, results suggest that, even controlling for respondents' economic circumstances, labour market vulnerability is associated with greater preferred severity (in line with H1) – but the results provide no clear evidence of how exposure to ethnic minorities might condition the size of that effect (H2). As for our other key individual-level variable, we find that while the perceived size of the foreign-born population is positively correlated with a preference to treat asylum seeker applications more harshly, the interaction between perceived migrant stock and labour market vulnerability (H3) does not attain statistical significance ( $p = 0.073$ ).

Introducing national-level variables into our analysis allows us to further nuance these relationships and examine our remaining hypotheses. We thus run two additional sets of models: the first adding an interaction between the mean perceived size of the migrant population with labour market vulnerability (see Appendix Table 2 for regression results); and the second adding an interaction of actual migrant stock with labour market vulnerability (see Appendix Table 3 for regression results).

Findings suggest that actual migrant stock has no impact on preferences (contrary to H4b), but that the perceived size of the migrant population does (in line with H4a). Both models nevertheless present essentially the same story when it comes to our individual-level interactions. Figure 3 illustrates our key findings, reflecting the full (Model 7) regression analysis found in Appendix Table 2 (i.e., including an interaction between labour market vulnerability and the mean assumed size of the foreign-born population), but with centred variables once again de-centred for ease of interpretation. Two major points are worth highlighting from the figure.

Figure 3: Marginal effects of labour market vulnerability by exposure frequency and country-mean assumed % of population born abroad, from full model



First, we note that our individual-level findings are broadly robust to controlling for country-level factors, with one exception: labour market vulnerability is no longer associated with increased preferred severity among those with frequent exposure. As illustrated in the top panel of Figure 3, the statistically significant effect persists only among respondents with little to no exposure to ethnic or racial minorities. The results from the full models therefore suggest that the impact of labour market vulnerability on preferred severity is conditional on low levels of exposure to minority groups (supporting H2).

Second, we find that labour market vulnerability is associated with higher preferred severity in countries with a large presumed migrant population (e.g., the Netherlands, Portugal, France, Austria, the UK, Belgium, Switzerland), but lower preferred severity in countries with a small presumed migrant population (e.g., Finland, Poland, the Czech Republic). Findings thus broadly support H4b, though with an important caveat: we expected that labour market vulnerability would increase preferred severity, and that the size of that effect would increase as the presumed size of the foreign-born population went up; but we did not anticipate that labour market vulnerability would decrease preferred severity at low levels of assumed migrant stock. We return to this point in the conclusion.

Online Appendix Tables 2 and 3 assess the robustness of these findings in various ways. In addition to the robustness checks already highlighted above (see footnotes 1, 5, and 7), we conduct further tests via: remove-one jackknife analysis (to confirm that results are not driven by any particular country); the use of cluster robust standard errors at the country level; excluding survey weights; and incorporating random slopes for our key individual-level explanatory variables (i.e., treating labour market vulnerability, exposure to minorities, and assumed size of

the foreign-born population as random effects).<sup>8</sup> The only notable changes to the results are some small increases in *p*-values, primarily in the jackknife and random slopes models – but differences are typically marginal with just a few significant results (*p* < 0.05) now merely nearing significance (*p* < 0.10).

## 5. Conclusions

In recent years, governments across Europe have opted for increasingly harsh treatment of asylum seekers – a policy turn that has coincided with growing hardline public opinion toward asylum seeking (e.g. Jennings, 2009; Wike et al., 2016). Given the broader context of increasingly dualized labour markets and increased migration (e.g. Emmenegger et al., 2012; Gash & McGinnity, 2007; Kang, 2021), this article set out to build on past work highlighting the potential attitudinal effects of labour market vulnerability on the native-born population (e.g. Kevins & Lightman, 2020; Pearson-Merkowitz et al., 2016). To do so, it investigated: (1) whether labour market vulnerability is associated with a preference for harsher government treatment of asylum seekers; and (2) the extent to which this relationship is conditioned by contact with minorities and the perceived or real size of the foreign-born population. This analysis was conducted using data on the native-born, non-retired populations of twenty European countries, drawing on both the 2014 wave of the ESS and micro-level data from the EU-SILC dataset.

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<sup>8</sup> We also carried out additional exploratory analysis to assess which components of vulnerability might be driving our results (i.e., risk of temporary employment, risk of part-time employment, or risk of unemployment). Findings from this disaggregated analysis suggest that our results are driven by exposure to temporary employment and unemployment – likely because the measure of part-time employment does not distinguish between voluntary and involuntary part-time work.

Results suggest that, even controlling for respondents' economic circumstances, increased labour market risk is associated with a preference for the harsher treatment of asylum seeker applications – but that exposure to minorities plays a key role in mediating this relationship. After accounting for national-level variation, we find that labour market vulnerability only has a discernible effect when exposure to ethnic minorities is low – thus reflecting past work suggesting that increased exposure to minorities can reduce anti-asylum seeker sentiments (e.g., Crawley et al., 2019). To the extent that individuals in homogenous areas are less likely to be competing with migrants for jobs than individuals in more diverse areas, this suggests that direct labour market competition is not the relevant mechanism (see Pardos-Prado 2020) – a finding that is in a sense unsurprising given the barriers to labour market access that asylum seekers often face (see, for example, Schenner & Neergaard, 2019). Instead, as we argued above, it is more likely that abstract concerns about resource competition, for example with regard to social services and the welfare state, are driving the relationship. Such a mechanism seems especially probable in light of the broader political context, which has been marked by the increased ‘economisation’ of discourse on asylum seekers (see Greussing & Boomgaarden, 2017). As our study’s design does not allow us to assess causal mechanisms, however, future research on this topic is clearly warranted.

At the contextual level, the study’s findings also align with past work that has concluded that perceived rather than actual sizes of the foreign-born population are what matter (e.g., Bolt and Wetsteijn, 2018, Gorodzeisky and Semyonov, 2020). As hypothesized, we find that the effect of labour market vulnerability on preferred government severity is strongest in countries where the assumed size of the foreign-born population is largest – a relationship that is not present when we look at objective data on migrant stock. Yet results also indicate that when the

perceived size of the foreign-born population is especially low, greater labour market vulnerability is associated with a preference for a more liberal, rather than a harsher, treatment of asylum seeker applications. This suggests that resource competition is unlikely to be the relevant mechanism in countries with low perceived foreign-born population sizes. It is less obvious, however, whether the apparent negative effect of labour market vulnerability in these contexts is real or spurious. On the one hand, vulnerable workers, and in particular those who may have been stigmatized as welfare recipients, may sympathize with asylum seekers as ‘fellow’ vulnerable populations in these countries. On the other, the effect may in fact be driven by a correlation between: (1) labour market vulnerability and another individual-level factor, such as party affiliation or media consumption patterns; and/or (2) perceived migrant population sizes and another contextual factor, such as the reigning political discourse on migrants. The latter explanation seems particularly relevant given research highlighting that people who view migrants as a threat tend to overestimate the size of the foreign-born population (see, for example, Herda, 2013; Kentmen-Cin & Erisen, 2017). Here again, the design of our study does not allow us to tease out the relevant mechanism(s) – but the data clearly suggest a complex relationship between labour market vulnerability and preferences on asylum seeking policy.

Whether one focuses on the neighbourhood- or national-level, then, investigating the mechanisms linking labour market vulnerability to preferred severity towards asylum seeking offers a valuable avenue for future research. Similarly, taking other factors into account, such as the impact of media or government discourse (see, for example, Wallaschek, 2020), would provide complementary insights on how these effects play out in practice. Finally, we note that while our use of ESS and EU-SILC data allowed us to examine a broader set of countries than most studies on this topic, it also required us to rely on survey data on exposure to minority

individuals that is imperfect and may vary in meaning across countries. Breaking down the exact nature of neighbourhood diversity, the length and duration of contact with minorities, and the migrant status of local residents would thus be an important step forward. As the fine-grained census or diary data required for this type of analysis are typically only available for a very limited set of countries, case studies drawing on such data would be especially instructive.

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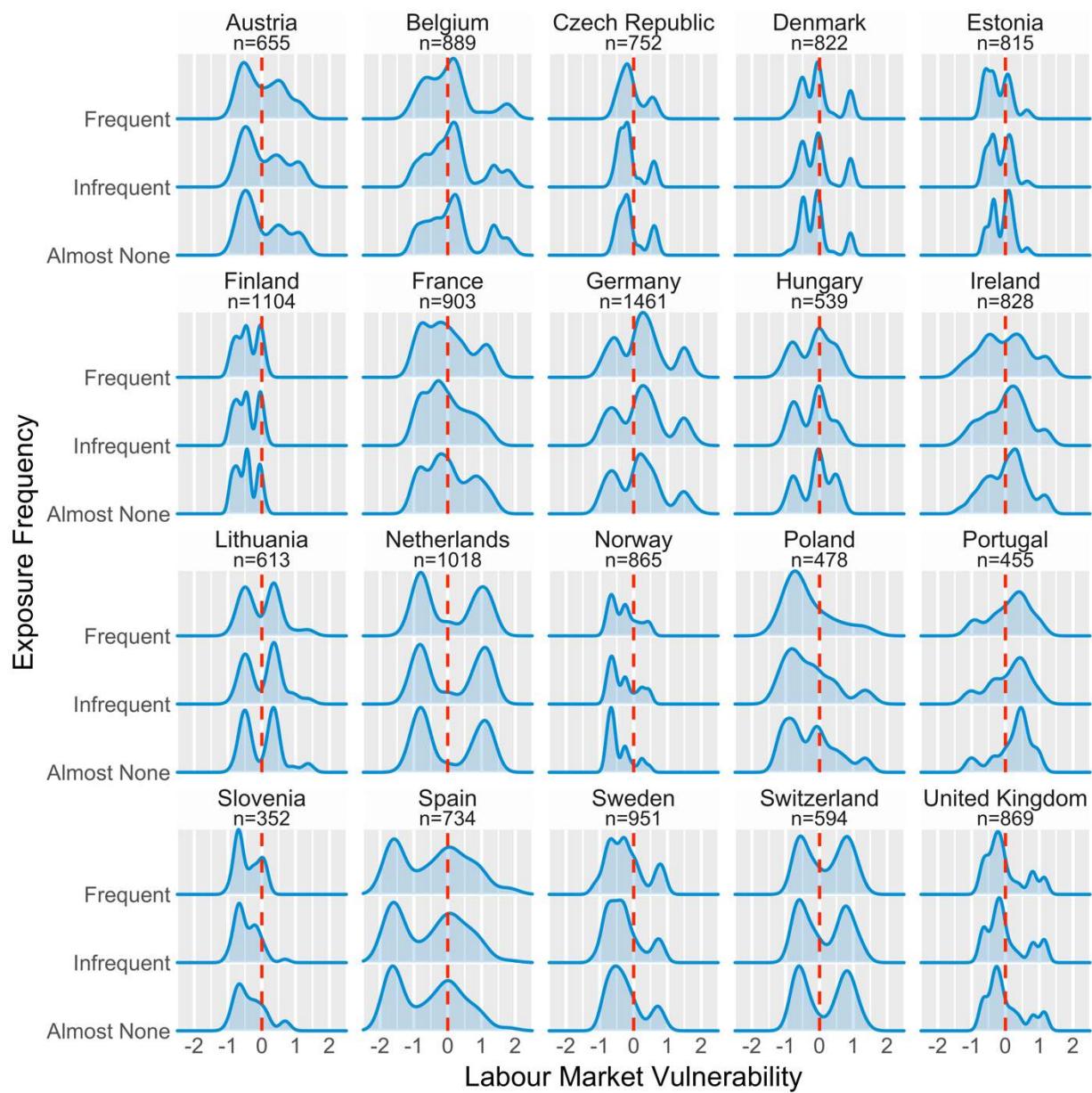
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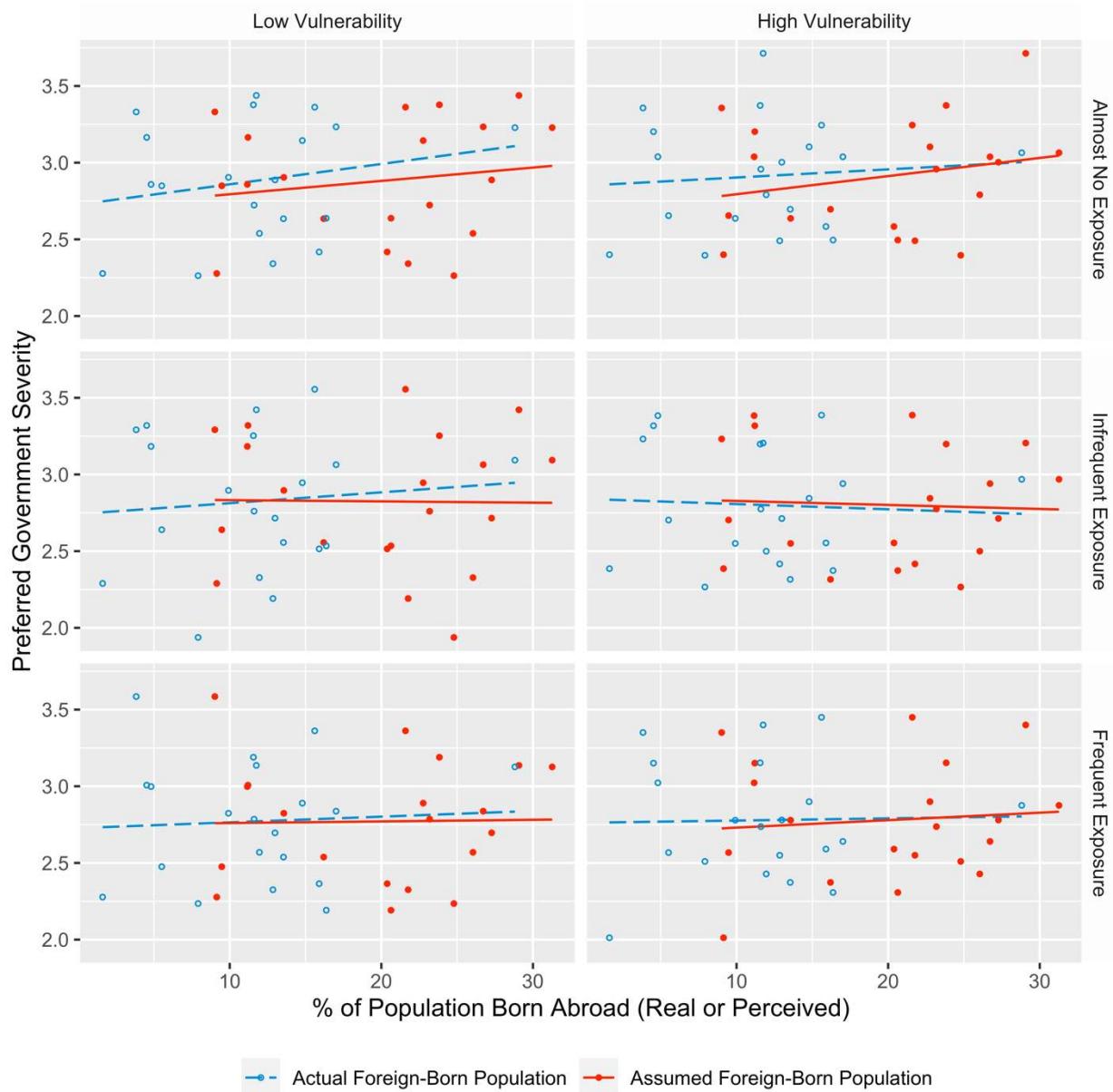
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Appendix Figure 1: Density plots of labour market vulnerability versus contact frequency, by country (with number of respondents)



Note: The vertical line at 0 indicates a risk of atypical employment or unemployment equal to the country mean, whereas positive (negative) values indicate higher (lower) than average risk.

Appendix Figure 2: Preferred severity versus real and perceived foreign-born population sizes, by exposure frequency and labour market vulnerability (with line of best fit)



Note: Plots illustrate the percentage of real and perceived foreign-born as a proportion of the population (x-axis) and weighted mean attitudes (y-axis). Panels are broken down by labour market vulnerability (split at the mean into high and low vulnerability) and exposure frequency.

Appendix Table 1: Individual-level model predicting preferred government severity toward asylum-seeker applications

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Remove-One Jackknife
Labour Market	0.0154	0.0398	0.0582*	0.0511**	0.0691**	0.0676**	0.0676**
Vulnerability	(0.014)	(0.021)	(0.024)	(0.017)	(0.023)	(0.023)	(0.023)
Exposure: baseline - less than once a week							
Once/several times a week	-0.0668** (0.021)	-0.0727*** (0.021)	-0.0562** (0.021)	-0.0384 (0.020)	-0.0442* (0.021)	-0.0437* (0.021)	-0.0437 (0.029)
Every day	-0.134*** (0.021)	-0.135*** (0.022)	-0.116*** (0.022)	-0.0754*** (0.022)	-0.0753*** (0.022)	-0.0751*** (0.022)	-0.0751* (0.027)
Exposure: baseline - less than once a week # Labour Market Vulnerability							
Once/several times a week		-0.0689* (0.031)	-0.0656* (0.030)		-0.0595* (0.030)	-0.0601* (0.030)	-0.0601* (0.026)
# Labour Market Vulnerability							
Every day # Labour Market Vulnerability		-0.0126 (0.031)	-0.000800 (0.031)		0.00989 (0.030)	0.00644 (0.030)	0.00644 (0.021)
Respondent's assumed % of population born abroad	0.00497*** (0.001)	0.00483*** (0.001)	0.00460*** (0.001)	0.00434*** (0.001)	0.00449*** (0.001)	0.00433*** (0.001)	0.00433*** (0.001)
Labour Market Vulnerability #							
Respondent's assumed % of population born abroad		0.000987 (0.001)	0.00152 (0.001)	0.00142 (0.001)		0.00138 (0.001)	0.00138 (0.001)
Education: baseline - less than upper secondary							
Upper secondary or post-secondary non-tertiary		0.0234 (0.026)	0.0256 (0.026)	0.0251 (0.026)	0.0260 (0.026)	0.0260 (0.025)	
Tertiary education		-0.215*** (0.029)	-0.178*** (0.028)	-0.178*** (0.028)	-0.179*** (0.028)	-0.179*** (0.028)	-0.179*** (0.033)
Income decile		0.00204 (0.004)	-0.00529 (0.004)	-0.00511 (0.004)	-0.00524 (0.004)	-0.00524 (0.004)	-0.00524 (0.007)
Household size		-0.000924 (0.007)	-0.00196 (0.007)	-0.00176 (0.007)	-0.00194 (0.007)	-0.00194 (0.007)	-0.00194 (0.007)
Male		0.112*** (0.021)	0.0987*** (0.020)	0.0993*** (0.020)	0.0983*** (0.020)	0.0983*** (0.020)	0.0983** (0.034)
Age		0.0151*** (0.004)	0.0152*** (0.004)	0.0154*** (0.004)	0.0153*** (0.004)	0.0153*** (0.004)	0.0153** (0.005)
Age # Age		-0.000174***	-	-0.000171***	-	-	-0.000169**

	(0.000)	0.000168***	(0.000)	0.000169***	(0.000)
Trade union member	-0.0489*	-0.0187	-0.0196	-0.0192	-0.0192
	(0.022)	(0.022)	(0.022)	(0.022)	(0.031)
Unemployed	-0.0739*	-0.0420	-0.0428	-0.0427	-0.0427
	(0.034)	(0.033)	(0.033)	(0.033)	(0.032)
Self employed	-0.0391	-0.0657*	-0.0651*	-0.0666*	-0.0666*
	(0.029)	(0.028)	(0.028)	(0.028)	(0.031)
Part-time employed	-0.0886***	-0.0771**	-0.0743***	-0.0758**	-0.0758**
	(0.023)	(0.022)	(0.022)	(0.022)	(0.026)
Non-employed	-0.0770***	-0.0617**	-0.0612**	-0.0615**	-0.0615*
	(0.021)	(0.020)	(0.020)	(0.020)	(0.027)
Fixed term	-0.00623	0.00607	0.00522	0.00575	0.00575
	(0.024)	(0.023)	(0.023)	(0.023)	(0.024)
Married	-0.0119	-0.0116	-0.0117	-0.0117	-0.0117
	(0.020)	(0.020)	(0.020)	(0.020)	(0.026)
Religious	-0.244***	-0.245***	-0.245***	-0.245***	-0.245**
	(0.032)	(0.032)	(0.032)	(0.032)	(0.064)
City resident	-0.0976***	-0.0974***	-0.0975***	-0.0975***	-0.0975***
	(0.019)	(0.019)	(0.019)	(0.019)	(0.019)
Ethnic Minority	-0.132**	-0.134**	-0.133**	-0.133	-0.133
	(0.050)	(0.050)	(0.050)	(0.050)	(0.085)
Diversity: baseline – almost nobody minority race/ethnic group					
Some minority race/ethnic group	-0.0631***	-0.0635***	-0.0636***	-0.0636	-0.0636
	(0.018)	(0.018)	(0.018)	(0.018)	(0.031)
Many minority race/ethnic group	0.00285	0.00309	0.00217	0.00217	0.00217
	(0.028)	(0.028)	(0.028)	(0.028)	(0.034)
Conservatism	0.0987***	0.0987***	0.0986***	0.0986***	0.0986***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.015)
Constant	2.906*** (0.014)	2.905*** (0.014)	2.666*** (0.093)	2.244*** (0.096)	2.245*** (0.096)
Observations	15697	15697	15697	15697	15697
					15697

Note: Cells contain generalized least squares fixed-effects regression coefficients, with standard errors in parentheses.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Appendix Table 2: Full model predicting preferred government severity toward asylum-seeker applications, with country-mean assumed % of population born abroad

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Labour Market Vulnerability	0.0114 (0.016)	0.0423 (0.022)	0.0428* (0.020)	0.0454* (0.023)	0.0226 (0.016)	0.0135 (0.015)	0.0421* (0.020)
Exposure: baseline - less than once a week							
Once/several times a week	-0.154*** (0.024)	-0.157*** (0.021)	-0.127*** (0.016)	-0.125*** (0.017)	-0.123*** (0.020)	-0.123*** (0.020)	-0.126*** (0.017)
Every day	-0.160*** (0.029)	-0.162*** (0.026)	-0.106*** (0.020)	-0.105*** (0.020)	-0.103*** (0.022)	-0.103*** (0.022)	-0.105*** (0.020)
Exposure: baseline - less than once a week # Labour Market Vulnerability							
Once/several times a week # Labour Market Vulnerability	-0.0570 (0.035)	-0.0607* (0.030)	-0.0502 (0.027)				-0.0606* (0.030)
Every day # Labour Market Vulnerability	-0.0449 (0.042)	-0.0385 (0.037)	-0.0281 (0.037)				-0.0384 (0.037)
Respondent's assumed % of population born abroad	0.00722*** (0.001)	0.00735*** (0.001)	0.00611*** (0.001)	0.00606*** (0.001)	0.00613*** (0.001)	0.00601*** (0.001)	0.00611*** (0.001)
Labour Market Vulnerability # Respondent's assumed % of population born abroad		-0.000886 (0.001)	-0.000814 (0.001)		-0.000320 (0.001)		-0.000803 (0.001)
Country-mean assumed % of population born abroad	-0.00178 (0.012)	-0.00183 (0.012)	0.00286 (0.011)	-0.0106 (0.015)	-0.0106 (0.015)	-0.0101 (0.015)	-0.00999 (0.015)
Labour Market Vulnerability # Country-mean assumed % of population born abroad		0.00130 (0.002)	0.00596*** (0.002)			0.00405** (0.002)	0.00590*** (0.002)
Education: baseline - less than upper secondary							
Upper secondary or post-secondary non-tertiary		0.0164 (0.033)	0.0165 (0.033)	0.0167 (0.033)	0.0161 (0.033)	0.0155 (0.033)	
Tertiary education		-0.194*** (0.021)	-0.195*** (0.021)	-0.193*** (0.021)	-0.194*** (0.021)	-0.194*** (0.021)	
Income decile		-0.0112 (0.009)	-0.0112 (0.009)	-0.0111 (0.009)	-0.0111 (0.009)	-0.0112 (0.009)	
Household size		0.0181* (0.009)	0.0175* (0.009)	0.0175* (0.009)	0.0177* (0.009)	0.0180* (0.009)	
Male		0.0735 (0.043)	0.0684 (0.043)	0.0694 (0.043)	0.0723 (0.044)	0.0730 (0.043)	
Age		0.0140 (0.007)	0.0140 (0.007)	0.0142 (0.007)	0.0141 (0.007)	0.0140 (0.007)	
Age # Age		-	-0.000168* (0.000168*)	-0.000170* (0.000170*)	-0.000168* (0.000168*)	-0.000168* (0.000168*)	

	0.000168*	(0.000)	(0.000)	(0.000)	(0.000)	
Trade union member	-0.0587*	(0.026)	-0.0578*	(0.025)	-0.0589*	(0.025)
Unemployed	-0.0180	(0.063)	-0.0171	(0.064)	-0.0151	(0.064)
Self employed	-0.121	(0.072)	-0.121	(0.072)	-0.121	(0.072)
Part-time employed	-0.117***	(0.019)	-0.114***	(0.021)	-0.115***	(0.020)
Non-employed	-0.0600	(0.038)	-0.0593	(0.038)	-0.0584	(0.039)
Fixed term	0.0409	(0.036)	0.0380	(0.036)	0.0389	(0.036)
Married	-0.0196	(0.048)	-0.0188	(0.048)	-0.0189	(0.048)
Religious	-0.296***	(0.066)	-0.297***	(0.066)	-0.296***	(0.066)
City resident	-0.0996***	(0.021)	-0.0998***	(0.021)	-0.101***	(0.022)
Ethnic Minority	0.0150	(0.057)	0.0122	(0.058)	0.0115	(0.057)
Diversity: baseline – almost nobody minority race/ethnic group						
Some minority race/ethnic group	-0.107*	(0.045)	-0.107*	(0.045)	-0.107*	(0.045)
Many minority race/ethnic group	0.00396	(0.039)	0.00523	(0.039)	0.00519	(0.039)
Conservatism	0.105***	(0.012)	0.105***	(0.013)	0.105***	(0.013)
GDP per capita	-	-	-	-	-	-
Unemployment rate	0.0000134***	(0.000)	0.0000134***	(0.000)	0.0000135***	(0.000)
Immigrants as % of population	-0.0734***	(0.020)	-0.0734***	(0.020)	-0.0733***	(0.020)
Unemployment Benefit Expenditure (% of GDP)	0.0329	(0.021)	0.0328	(0.020)	0.0330	(0.020)
Constant	2.925***	2.929***	2.313***	2.890***	2.883***	2.879***
						2.884***

	(0.085)	(0.084)	(0.211)	(0.279)	(0.281)	(0.279)	(0.278)
<i>Variance</i>							
Country-level	0.350*** (0.035)	0.350*** (0.035)	0.330*** (0.034)	0.249*** (0.031)	0.249*** (0.031)	0.250*** (0.032)	0.251*** (0.032)
Residual	1.054* (0.024)	1.054* (0.024)	1.015 (0.018)	1.015 (0.017)	1.016 (0.017)	1.015 (0.017)	1.015 (0.018)
Observations	15697	15697	15697	15697	15697	15697	15697

Note: Cells contain maximum likelihood regression coefficients, with standard errors in parentheses. All models incorporate post-stratification survey weights.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Appendix Table 3: Full model predicting preferred government severity toward asylum-seeker applications, with migrant stock as a % of population

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Labour Market Vulnerability	0.0114 (0.016)	0.0422 (0.024)	0.0508* (0.024)	0.0454* (0.023)	0.0226 (0.016)	0.0217 (0.018)	0.0498* (0.024)
Exposure: baseline - less than once a week							
Once/several times a week	-0.154*** (0.024)	-0.157*** (0.021)	-0.127*** (0.017)	-0.125*** (0.017)	-0.123*** (0.020)	-0.123*** (0.020)	-0.126*** (0.017)
Every day	-0.160*** (0.029)	-0.162*** (0.026)	-0.107*** (0.019)	-0.105*** (0.020)	-0.103*** (0.022)	-0.104*** (0.022)	-0.106*** (0.020)
Exposure: baseline - less than once a week # Labour Market Vulnerability							
Once/several times a week # Labour Market Vulnerability	-0.0523 (0.034)	-0.0556* (0.028)	-0.0502 (0.027)				-0.0554* (0.028)
Every day # Labour Market Vulnerability	-0.0399 (0.042)	-0.0337 (0.038)	-0.0281 (0.037)				-0.0334 (0.038)
Respondent's assumed % of population born abroad	0.00722*** (0.001)	0.00734*** (0.001)	0.00612*** (0.001)	0.00606*** (0.001)	0.00613*** (0.001)	0.00607*** (0.001)	0.00612*** (0.001)
Labour Market Vulnerability # Respondent's assumed % of population born abroad	-0.000696 (0.001)	-0.000447 (0.001)			-0.000320 (0.001)		-0.000433 (0.001)
Immigrants as % of population	-0.000623 (0.013)	-0.000838 (0.013)	0.00297 (0.012)	0.0329 (0.021)	0.0328 (0.020)	0.0327 (0.020)	0.0325 (0.020)
Labour Market Vulnerability # Immigrants as % of population	-0.00124 (0.003)	0.00340 (0.003)				0.00165 (0.002)	0.00326 (0.003)
Education: baseline - less than upper secondary							
Upper secondary or post-secondary non-tertiary		0.0174 (0.033)	0.0165 (0.033)	0.0167 (0.033)	0.0167 (0.033)	0.0167 (0.033)	0.0165 (0.033)
Tertiary education		-0.193*** (0.021)	-0.195*** (0.021)	-0.193*** (0.021)	-0.193*** (0.021)	-0.194*** (0.021)	-0.194*** (0.021)
Income decile		-0.0114 (0.009)	-0.0112 (0.009)	-0.0111 (0.009)	-0.0112 (0.009)	-0.0112 (0.009)	-0.0113 (0.009)
Household size		0.0180* (0.009)	0.0175* (0.009)	0.0175* (0.009)	0.0176* (0.009)	0.0176* (0.009)	0.0179* (0.009)
Male		0.0713 (0.043)	0.0684 (0.043)	0.0694 (0.043)	0.0704 (0.044)	0.0708 (0.043)	
Age		0.0140 (0.007)	0.0140 (0.007)	0.0142 (0.007)	0.0141 (0.007)	0.0140 (0.007)	
Age # Age		-	-0.000168* (0.000168*)	-0.000170* (0.000170*)	-0.000169* (0.000169*)	-0.000168* (0.000168*)	

	0.000168*	(0.000)	(0.000)	(0.000)	(0.000)				
Trade union member	-0.0581*	(0.026)	-0.0578*	(0.025)	-0.0589*	(0.025)	-0.0587*	(0.026)	-0.0580*
Unemployed	-0.0183	(0.064)	-0.0171	(0.064)	-0.0151	(0.064)	-0.0154	(0.064)	-0.0175
Self employed	-0.121	(0.073)	-0.121	(0.072)	-0.121	(0.074)	-0.122	(0.074)	-0.121
Part-time employed	-0.116***	(0.019)	-0.114***	(0.021)	-0.115***	(0.020)	-0.117***	(0.020)	-0.116***
Non-employed	-0.0601	(0.037)	-0.0593	(0.038)	-0.0584	(0.039)	-0.0585	(0.039)	-0.0595
Fixed term	0.0390	(0.036)	0.0380	(0.036)	0.0389	(0.036)	0.0399	(0.036)	0.0391
Married	-0.0192	(0.048)	-0.0188	(0.048)	-0.0189	(0.048)	-0.0190	(0.048)	-0.0190
Religious	-0.295***	(0.066)	-0.297***	(0.066)	-0.296***	(0.065)	-0.296***	(0.066)	-0.297***
City resident	-0.0993***	(0.021)	-0.0998***	(0.021)	-0.101***	(0.022)	-0.101***	(0.022)	-0.0997***
Ethnic Minority	0.0133	(0.057)	0.0122	(0.058)	0.0115	(0.057)	0.0113	(0.057)	0.0127
Diversity: baseline – almost nobody minority race/ethnic group									
Some minority race/ethnic group	-0.107*	(0.045)	-0.107*	(0.045)	-0.107*	(0.046)	-0.107*	(0.045)	-0.107*
Many minority race/ethnic group	0.00468	(0.039)	0.00523	(0.039)	0.00519	(0.039)	0.00495	(0.039)	0.00515
Conservatism	0.105***	(0.013)	0.105***	(0.013)	0.105***	(0.013)	0.105***	(0.013)	0.105***
GDP per capita	-	-	-	-	-	-	-	-	-
Unemployment rate	0.0000134***	(0.000)	0.0000134***	(0.000)	0.0000134***	(0.000)	0.0000134***	(0.000)	0.0000134***
Country-mean assumed % of population born abroad	-0.0734***	(0.020)	-0.0734***	(0.020)	-0.0733***	(0.020)	-0.0731***	(0.020)	-0.0731***
Unemployment Benefit Expenditure (% of GDP)	-0.0106	(0.015)	-0.0106	(0.015)	-0.0104	(0.015)	-0.0104	(0.015)	-0.0104
Constant	2.925***	2.929***	2.319***	3.497***	3.489***	3.484***	3.485***	3.485***	3.485***

	(0.084)	(0.082)	(0.212)	(0.429)	(0.428)	(0.429)	(0.430)
<i>Variance</i>							
Country-level	0.350*** (0.035)	0.350*** (0.035)	0.329*** (0.034)	0.249*** (0.031)	0.249*** (0.031)	0.249*** (0.032)	0.250*** (0.032)
Residual	1.054* (0.024)	1.054* (0.024)	1.015 (0.017)	1.015 (0.017)	1.016 (0.017)	1.016 (0.017)	1.015 (0.017)
Observations	15697	15697	15697	15697	15697	15697	15697

Note: Cells contain maximum likelihood regression coefficients, with standard errors in parentheses. All models incorporate post-stratification survey weights.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Online Appendix Table 1: Weighted descriptive statistics

	Mean	Standard Deviation	Minimum	Maximum
Preferred severity toward asylum seekers	2.747	1.106	1	5
Labour Market Vulnerability	-0.034	0.748	-1.785	1.949
Exposure	1.970	0.840	1	3
Respondent's assumed % of population born abroad	21.521	16.680	0	100
Education	2.148	0.723	1	3
Income decile	6.168	2.735	1	10
Household size	3.012	1.349	1	13
Male	0.510	0.500	0	1
Age	41.843	12.799	15	92
Trade union member	0.190	0.393	0	1
Unemployed	0.084	0.277	0	1
Self employed	0.110	0.313	0	1
Part-time employed	0.229	0.420	0	1
Non-employed	0.276	0.447	0	1
Fixed term	0.226	0.418	0	1
Married	0.534	0.499	0	1
Religious	0.093	0.290	0	1
People of minority race/ethnic group in current living area	1.752	0.704	1	3
Ethnic Minority	0.023	0.151	0	1
Conservatism	4.872	2.090	0	10
GDP per capita	42849.702	15305.917	14085.040	96803.156
Unemployment rate	9.174	5.677	3.500	24.400
Immigrants as % of population	12.068	4.489	1.616	28.810
Unemployment Benefit Expenditure (% of GDP)	1.488	0.928	0.300	3.400
Country-mean assumed % of population born abroad	22.248	5.821	9.017	31.267
Unemployment rate	9.174	5.677	3.500	24.400
Observations	15697			

Online Appendix Table 2: Robustness checks for full model predicting preferred government severity toward asylum-seeker applications, with country-mean assumed % of population born abroad

	Remove-One Jackknife	Cluster Robust SEs	No Weights	Random Slopes
Labour Market Vulnerability	0.0421 (0.023)	0.0421* (0.020)	0.0652** (0.023)	0.0410 (0.022)
Exposure: baseline - less than once a week				
Once/several times a week	-0.126*** (0.019)	-0.126*** (0.017)	-0.0441* (0.021)	-0.126*** (0.017)
Every day	-0.105*** (0.021)	-0.105*** (0.020)	-0.0753*** (0.022)	-0.102*** (0.020)
Exposure: baseline - less than once a week # Labour Market Vulnerability				
Once/several times a week # Labour Market Vulnerability	-0.0606 (0.033)	-0.0606* (0.030)	-0.0680* (0.030)	-0.0597 (0.031)
Every day # Labour Market Vulnerability	-0.0384 (0.042)	-0.0384 (0.037)	-0.00166 (0.030)	-0.0362 (0.040)
Respondent's assumed % of population born abroad	0.00611*** (0.001)	0.00611*** (0.001)	0.00432*** (0.001)	0.00438*** (0.001)
Labour Market Vulnerability # Respondent's assumed % of population born abroad	-0.000803 (0.001)	-0.000803 (0.001)	0.000682 (0.001)	-0.00113 (0.001)
Country-mean assumed % of population born abroad	-0.00999 (0.022)	-0.00999 (0.015)	-0.0107 (0.015)	-0.00785 (0.015)
Labour Market Vulnerability # Country-mean assumed % of population born abroad	0.00590** (0.002)	0.00590*** (0.002)	0.00539* (0.002)	0.00560*** (0.002)
Education: baseline - less than upper secondary				
Upper secondary or post-secondary non-tertiary	0.0155 (0.042)	0.0155 (0.033)	0.0277 (0.026)	0.0168 (0.032)
Tertiary education	-0.194*** (0.022)	-0.194*** (0.021)	-0.179*** (0.028)	-0.194*** (0.021)
Income decile	-0.0112 (0.011)	-0.0112 (0.009)	-0.00539 (0.004)	-0.0115 (0.009)
Household size	0.0180 (0.010)	0.0180* (0.009)	-0.00148 (0.007)	0.0178* (0.009)
Male	0.0730 (0.050)	0.0730 (0.043)	0.102*** (0.020)	0.0699 (0.043)
Age	0.0140 (0.008)	0.0140 (0.007)	0.0152*** (0.004)	0.0137 (0.007)
Age # Age	-0.000168 (0.000)	-0.000168* (0.000)	- (0.000)	-0.000165* (0.000)

		(0.000)		
Trade union member	-0.0586 (0.028)	-0.0586* (0.025)	-0.0210 (0.022)	-0.0563* (0.025)
Unemployed	-0.0172 (0.073)	-0.0172 (0.063)	-0.0423 (0.033)	-0.0157 (0.064)
Self employed	-0.121 (0.081)	-0.121 (0.072)	-0.0679* (0.028)	-0.119 (0.072)
Part-time employed	-0.117*** (0.021)	-0.117*** (0.019)	-0.0782*** (0.022)	-0.120*** (0.020)
Non-employed	-0.0594 (0.045)	-0.0594 (0.038)	-0.0613** (0.020)	-0.0602 (0.037)
Fixed term	0.0410 (0.041)	0.0410 (0.036)	0.00652 (0.023)	0.0425 (0.036)
Married	-0.0194 (0.057)	-0.0194 (0.048)	-0.0118 (0.020)	-0.0178 (0.048)
Religious	-0.297*** (0.072)	-0.297*** (0.066)	-0.249*** (0.031)	-0.296*** (0.065)
City resident	-0.100** (0.026)	-0.100*** (0.021)	-0.0985*** (0.019)	-0.100*** (0.021)
Ethnic Minority	0.0144 (0.083)	0.0144 (0.058)	-0.129** (0.050)	0.00919 (0.059)
Diversity: baseline – almost nobody minority race/ethnic group				
Some minority race/ethnic group	-0.107* (0.051)	-0.107* (0.045)	-0.0634*** (0.018)	-0.108* (0.046)
Many minority race/ethnic group	0.00441 (0.047)	0.00441 (0.039)	0.00287 (0.028)	0.00448 (0.038)
Conservatism	0.105*** (0.014)	0.105*** (0.013)	0.0987*** (0.004)	0.105*** (0.013)
GDP per capita	-0.0000135* (0.000)	-0.0000135*** (0.000)	- (0.000)	-0.0000135*** (0.000)
Unemployment rate	-0.0732 (0.072)	-0.0732*** (0.020)	-0.0741*** (0.021)	-0.0744*** (0.020)
Immigrants as % of population	0.0330 (0.030)	0.0330 (0.021)	0.0369 (0.021)	0.0340 (0.020)
Unemployment Benefit Expenditure (% of GDP)	0.185 (0.145)	0.185* (0.087)	0.175 (0.093)	0.190* (0.088)
Constant	2.884*** (0.725)	2.884*** (0.278)	2.830*** (0.282)	2.876*** (0.278)

Variance

Country-level	0.251*** (0.057)	0.251*** (0.032)	0.252*** (0.041)	0.249*** (0.033)
Residual	1.015 (0.019)	1.015 (0.018)	1.011 (0.006)	1.014 (0.018)
Country (Labour Market Vulnerability)				3.38e-09 (0.000)
Country (Exposure)				0.0164*** (0.016)
Country (Respondent's assumed % of population born abroad)				0.00338*** (0.001)
Observations	15697	15697	15697	15697

Note: Cells contain maximum likelihood regression coefficients, with standard errors in parentheses. All models incorporate post-stratification survey weights.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Online Appendix Table 3: Robustness checks for full model predicting preferred government severity toward asylum-seeker applications, with migrant stock as a % of population

	Remove-One Jackknife	Cluster Robust SEs	No Weights	Random Slopes
Labour Market Vulnerability	0.0498 (0.027)	0.0498* (0.024)	0.0664** (0.024)	0.0476 (0.025)
Exposure: baseline - less than once a week				
Once/several times a week	-0.126*** (0.020)	-0.126*** (0.017)	-0.0433* (0.021)	-0.125*** (0.018)
Every day	-0.106*** (0.021)	-0.106*** (0.020)	-0.0752*** (0.022)	-0.102*** (0.020)
Exposure: baseline - less than once a week # Labour Market Vulnerability				
Once/several times a week # Labour Market Vulnerability	-0.0554 (0.029)	-0.0554* (0.028)	-0.0571 (0.030)	-0.0536 (0.030)
Every day # Labour Market Vulnerability	-0.0334 (0.044)	-0.0334 (0.038)	0.00995 (0.030)	-0.0301 (0.041)
Respondent's assumed % of population born abroad	0.00612*** (0.001)	0.00612*** (0.001)	0.00432*** (0.001)	0.00428*** (0.001)
Labour Market Vulnerability # Respondent's assumed % of population born abroad	-0.000433 (0.001)	-0.000433 (0.001)	0.00151 (0.001)	-0.000750 (0.001)
Immigrants as % of population	0.0325 (0.030)	0.0325 (0.020)	0.0371 (0.021)	0.0338 (0.020)
Labour Market Vulnerability # Immigrants as % of population	0.00326 (0.005)	0.00326 (0.003)	-0.00201 (0.003)	0.00249 (0.003)
Education: baseline - less than upper secondary				
Upper secondary or post-secondary non-tertiary	0.0165 (0.042)	0.0165 (0.033)	0.0267 (0.026)	0.0175 (0.032)
Tertiary education	-0.194*** (0.022)	-0.194*** (0.021)	-0.178*** (0.028)	-0.193*** (0.021)
Income decile	-0.0113 (0.011)	-0.0113 (0.009)	-0.00502 (0.004)	-0.0116 (0.009)
Household size	0.0179 (0.010)	0.0179* (0.009)	-0.00236 (0.007)	0.0177 (0.009)
Male	0.0708 (0.051)	0.0708 (0.043)	0.0968*** (0.021)	0.0673 (0.043)
Age	0.0140 (0.008)	0.0140 (0.007)	0.0154*** (0.004)	0.0137 (0.007)
Age # Age	-0.000168 (0.000)	-0.000168* (0.000)	-0.000170*** (0.000)	-0.000165* (0.000)

Trade union member	-0.0580 (0.028)	-0.0580* (0.026)	-0.0207 (0.022)	-0.0558* (0.025)
Unemployed	-0.0175 (0.074)	-0.0175 (0.064)	-0.0424 (0.033)	-0.0159 (0.064)
Self employed	-0.121 (0.082)	-0.121 (0.073)	-0.0669* (0.028)	-0.119 (0.073)
Part-time employed	-0.116*** (0.021)	-0.116*** (0.019)	-0.0744*** (0.022)	-0.119*** (0.020)
Non-employed	-0.0595 (0.045)	-0.0595 (0.038)	-0.0610** (0.020)	-0.0602 (0.037)
Fixed term	0.0391 (0.041)	0.0391 (0.036)	0.00381 (0.023)	0.0408 (0.036)
Married	-0.0190 (0.057)	-0.0190 (0.048)	-0.0114 (0.020)	-0.0174 (0.048)
Religious	-0.297*** (0.071)	-0.297*** (0.065)	-0.249*** (0.031)	-0.296*** (0.065)
City resident	-0.0997** (0.026)	-0.0997*** (0.021)	-0.0981*** (0.019)	-0.0999*** (0.021)
Ethnic Minority	0.0127 (0.083)	0.0127 (0.058)	-0.131** (0.050)	0.00785 (0.058)
Diversity: baseline – almost nobody minority race/ethnic group				
Some minority race/ethnic group	-0.107* (0.051)	-0.107* (0.045)	-0.0631*** (0.018)	-0.108* (0.046)
Many minority race/ethnic group	0.00515 (0.047)	0.00515 (0.039)	0.00270 (0.028)	0.00488 (0.038)
Conservatism	0.105*** (0.014)	0.105*** (0.013)	0.0986*** (0.004)	0.105*** (0.013)
GDP per capita	-0.0000134* (0.000)	-0.0000134*** (0.000)	-0.0000147** (0.000)	-0.0000134*** (0.000)
Unemployment rate	-0.0731 (0.071)	-0.0731*** (0.020)	-0.0745*** (0.021)	-0.0745*** (0.020)
Country-mean assumed % of population born abroad	-0.0104 (0.022)	-0.0104 (0.015)	-0.0117 (0.015)	-0.00817 (0.015)
Unemployment Benefit Expenditure (% of GDP)	0.186 (0.145)	0.186* (0.087)	0.176 (0.092)	0.191* (0.088)
Constant	3.485*** (0.653)	3.485*** (0.430)	3.508*** (0.457)	3.447*** (0.422)
<i>Variance</i>				
Country-level	0.250*** (0.057)	0.250*** (0.032)	0.250*** (0.041)	0.248*** (0.033)

Residual	1.015 (0.019)	1.015 (0.017)	1.011 (0.006)	1.014 (0.018)
Country (Labour Market Vulnerability)				1.07e-08 (0.000)
Country (Exposure)				0.0175*** (0.015)
Country (Respondent's assumed % of population born abroad)				0.00350*** (0.001)
Observations	15697	15697	15697	15697

Note: Cells contain maximum likelihood regression coefficients, with standard errors in parentheses. All models incorporate post-stratification survey weights.

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$