The Ukrainian Refugee Crisis and the Politics of Public Opinion: Evidence from Hungary

Supplementary Material

A Appendix: Temporary Protection versus Refugees

Temporary protection status (TPS): In February 2022, the EU introduced (for the first time) the temporary protection as an exceptional measure to provide immediate protection to people fleeing the war in Ukraine. The European Commission identified a clear risk that "*the asylum systems of EU countries would be unable to process applications within the deadlines set. This would negatively affect the efficiency of national asylum processes and adversely affect the rights of people applying for international protection*".[61] Thus, the introduction of the temporary protection status – by definition – replaced the refugee status for those fleeing from Ukraine. The temporary protection status provides free health care, education, right to reside in Hungary, state-provided accommodation and financial assistance. The TP status is the best available option for people fleeing Ukraine, as the administrative procedure itself is fast and the rights are granted to the person immediately upon application (in contrast to the lengthy refugee status procedure). Indeed, recent data from Eurostat show that no-one from Ukraine sought asylum in Hungary after the outbreak of the war.[62][63]

Asylum seeker: Asylum is a form of protection provided by a foreign state to an individual whose own country of origin does not provide protection. All people have the right to seek asylum, to ask for the protection of a country if they cannot return to their own country of origin or residence if they fear persecution, harm due to their race, religion, nationality, political opinion or because they belong to a certain social group.[64] In Hungary, if an asylum seeker has successfully registered the asylum application, the immigration authority examines the application (2-3 months but often longer) and the asylum seeker will receive one of the four decisions:

[61] This statement is available here.

[62] Data are from https://ec.europa.eu/eurostat/web/migration-asylum/asylum/database?node_code=migr_asytp.

[63] Temporary protection must be requested. Once a Ukrainian applied for the TP status, she or he is entitled for a humanitarian residence permit. The authorities are required to make a decision within 55 days.

[64] The definition is available at https://help.unhcr.org/hungary/asylum/.

1. Refugee status[65]

2. Subsidiary protection [66]

3. Humanitarian protection/tolerated status[67]

4. Rejected asylum application

While we acknowledge the differences between the temporary protected status of the Ukrainians and the refugee/subsidy protection status of Afghans and others fleeing conflict, we argue that 1) most Hungarians personally never encountered anyone fleeing war (at least not for a long term) because only a few of them have stayed in Hungary; 2) Hungarian public opinion is unlikely to be driven by any meaningful differences in the social costs associated with having people with refugee *versus* with temporary protection status. Nonetheless, to rule out the possibility that our results are driven by different legal terminologies, we use the word *menekülő* (people fleeing) to describe refugees in our surveys. This word does not carry a precise legal meaning that is equivalent to refugee, migrant or asylum seeker. The Hungarian Helsinki Committee defines the term *menekülő* as follows: "This word does not carry a legal meaning, it refers to people arriving to Hungary in an irregular way (without visa or right to reside) usually fleeing war-torn countries. Nonetheless, they are not necessarily eligible for refugee status as defined in international law".[68] We argue that the wordings are unlikely to affect our results as the terminology may capture a latent orientation towards foreigners. This orientation was certainly influenced by the dominant Hungarian political discourse. While in Western

[65]The status falls under mandatory review every three years; the status provides the right to have an ID card, an address card and work permit. Refugees can bring their families to Hungary, and children can go to school.

[66]The status falls under mandatory review every three years. The main difference between this status and refugee status is that people with subsidiary protection can only bring their family to Hungary under special circumstances defined by the law.

[67]This is a one year status, people with this status can work in accordance with the law regulating the work permit of third-country nationals, while they cannot bring their families to Hungary.

[68]In: "A Menekültvédelem Jövője Magyarországon" Magyar Helsinki Bizottság, 2017.

Europe, political leaders almost inflated the term refugee that might have threatened to exhaust solidarity, the Hungarian government consistently referred to the arrivals as *migrants* in public discourse ever since immigrants from the Middle East, the Balkans and Africa began trickling over Hungary's borders in early 2015. All these points notwithstanding, we do recognize that there is no way using our data to test how much the misuse of the term migrant has driven anti-immigrant sentiments in Hungary.

First, the small number of people with TP status in Hungary (see in Tables A2 and A3) underpins our argument that Hungarians' attitude are not primarily affected by individual contact, but the refugee crisis is a contextual factor that affects public opinion responses in the aggregate. Table A2 shows the number of granted temporary protected status, the number of application for TP status (that is a good measure for the intention to stay in the country) and the total number of Ukrainian crossing the Hungarian border by months. Table A2 reveals that the majority of the Ukrainians did not stay in Hungary (e.g.: a month before our survey was recorded, only 1.24% of the Ukrainians crossing the border applied for the temporary protected status with 0.28% of them receiving the TP status, while 3.7% of the Ukrainians entering the country applied for TP status and 2.29% of them received it in the month of our survey).[69]

It is equally unlikely that many Hungarians encountered a refugee during the first refugee crisis or in its aftermath. Table A1 shows data about the number of asylum seekers and the number of positive decisions between 2013 and 2021 (including the first refugee crisis).[70] The first column clearly shows that the number of applications skyrocketed

[69]Those who already applied for temporary protection, but not yet received it have a humanitarian residence permit (for 60 days at most) that already grants some rights for the Ukrainians. Nonetheless, we assume that most Ukrainians who are planning to stay in Hungary apply for the TP status as quickly as possible as the humanitarian residence permit already grants some rights to them and decision on temporary protection status is relatively quick (no longer than 55 days). While there might be some Ukrainian who entered the country and did not apply for TP status yet with temporary residence permit (so-called 'ideiglenes tartózkodásra jogosító igazolás'), they are most likely traveling through the country and will definitely not stay in Hungary for a long time.

[70]The difference between applications and decisions is explained by the large number of withdrawn

in 2014-2016, with a peak in 2015. Nonetheless, only 300-500 asylum seekers received positive decision during this time period (with the exception of 2017, when there were 1290 positive decisions).

Year	Applications	Decision	Rejected	Accepted
2013	18 895	4 540	4 180	420
2014	42 775	5 445	4 935	480
2015	177 135	3 340	2 915	505
2016	29 430	5 105	4 675	430
2017	3 390	4 170	2 880	1 290
2018	670	960	590	370
2019	500	710	650	55
2020	115	475	345	130
2021	40	60	20	40

Source: Eurostat data on first instance decisions on applications and on asylum applicants

Table A1: Number of Asylum Applications and Accepted Refugees 2013–2021

In 2016, only 425 people received granted protection (154 refugee and 271 subsidiary protection status) (see Table A3), even though majority of asylum seekers (67 %) came from war- and terror-torn countries, including 17 % from Syria, 38 % from Afghanistan, 12 % from Iraq and 1 % from Somalia.[71] Similarly in 2017, 1216 asylum seekers were granted protection (106 refugee and 1110 subsidiary protection status) while 2880 applications were rejected. Table A4 reveals that recognition rates for those arriving from war- and terror-torn countries remain low. In 2017, the majority of asylum seekers (83 %) came from war- and terror-torn countries, including 17% from Syria, 42% from Afghanistan, 24% from Iraq and 0,3% from Somalia.[72]

Not only very few people received protection (either a refugee status or a subsidiary protected status), but the newly introduced measures of the government made it very

applications.

[71]The report is available at: https://helsinki.hu/wp-content/uploads/HHC-Hungary-asylum-figures-1-January-2017.pdf.To put these number in context, Germany took in 890000 asylum seekers in 2015 and 280000 in 2016.

[72]The report is available at: https://helsinki.hu/wp-content/uploads/HHC-Hungary-asylum-figures-1-January-2018.pdf.

difficult to even seek asylum in Hungary. For instance, in July 2016, Hungary introduced a law that allows police officers to send back people detained within eight kilometres (five miles) of its southern frontier to the Serbian side of the border fence. As no more than 15 asylum seekers were allowed to enter the transit zones per day, those pushed back are stranded for several days or weeks in the transit zones. Later in 2017, the daily limit of people admitted to enter the transit zone was reduced to 5-5 people during working days.

It comes as no surprise, that as of the beginning of 2022 (few months before our survey was recorded), very few people lived in Hungary with protection status; there were 1435 people with refugee, 1521 people with subsidiary protection and 119 people with humanitarian statuses.[73]

Second, Table A5 shows the right of people with refugee (and subsidiary protection status) and with temporary protection status that might be a rough proxy for social costs associated with both statuses (we, however, acknowledge that education, healthcare and shelter are not the only costs associated with these statuses). The table shows that people with both statuses have roughly the same rights and thus granting these statuses implies the same social costs (if anything, people from Ukraine might impose higher social cost), suggesting that our results are not likely to be driven by public's fear of high social costs of refugees.[74]

[73]Data is available at: http://www.bmbah.huindex.php?option=com_k2&viewītem&layoutītem&idī77&Itemidī232&lar

[74]Ukrainians who already applied for TP status but have not received the status yet, are issued a humanitarian residence permit. While the authorities should make a decision within 55 days, Ukrainians with humanitarian residence permit have the right to: access Hungarian medical care; request state-provided accommodation; request free of charge translation of personal documents; work within Hungary without any special permit; schooling for children, preschools and day-care and 6 months of free meals for children; request discounted travel tickets. https://helsinki.hu/en/information-ukraine-stateless-recognized-refugees/

	2022					
	March	April	May	June	July	Aug
No of Granted TPS	1 440	7 075	6 935	5 650	2 795	1 555
No of TPS applications	6 379	11 579	4 697	2 890	1 781	1 324
Ukr. from Ukraine	27 6613	151 026	167 484	180 529	202 733	223 697
Ukr. from Romania	236 551	158 426	163 222	156 197	186 564	273 685
Total number of Ukr.	513 164	309 452	330 706	336 726	389 297	497 382

Notes: Data are from UNHCR and from the National Directorate-General for Aliens Policing. TPS is temporary protected status. "Ukr. from Ukraine/Romania" is the number of Ukrainian crossing the border from Ukraine and from Romania respectively.

Table A2: Number of Ukrainians Crossing Border and the Number of Granted Temporary Protected Status between March and August 2022

	2016			2017		
	Total Number	Asylum seekers regist. in Hun.	Granted protection	Total Number	Asylum seekers regist. in Hun.	Granted protection
Jan.	553	433	57	3 240	536	21
Feb.	2 398	2 175	57	3 399	433	13
Mar.	3 412	4 574	57	1 034	321	39
Apr.	3 946	5 812	57	191	205	28
May	3 244	4 752	12	837	247	82
Jun.	3 768	4 745	12	1 785	237	138
Jul.	4 968	1 688	38	1 735	238	123
Aug.	4 363	1 402	35	2 478	274	174
Sept.	2 506	1 118	27	2 244	234	187
Oct.	3 266	1 198	28	1 577	234	150
Nov.	2 365	728	18	2 050	228	120
Dec.	3 279	629	27	1 147	210	141
Total	38 219	29 432	425	21 717	3 397	1 216

Notes: Data are drawn from the reports of the Hungarian Helsinki Committee. "Total Number" are the number of people who crossed or tried to cross border (including blocked entries at the border fence; escorts to the external side of the border fence; irregular migrants apprehended). Granted protection includes granted refugee status and subsidiary protection status (and does not include humanitarian protection/tolerated status). For January – April 2016; May – June 2016; September – October 2016, only aggregated data are available for the number of granted applications. In these cases, monthly data are calculated from the aggregate number.

Table A3: Number of People Crossing Border and the Number of Granted Protected Status in 2016 and in 2017

Source Country	All in-merit decisions	Granted Protection	Refused Protection
Afghanistan	1 749	529 (20 RS, 509 SPS)	1 220
Iraq	688	178 (10 RS 168 SPS)	510
Somalia	15	12 (1 RS, 11 SPS)	3
Syria	957	384 (10 RS, 374 SPS)	573

Notes: Data are from the Hungarian Helsinki Committee.

Table A4: Number of People from War- and Terror-torn Countries and the Number of Granted Protection (Refugee Status (RS) and Subsidiary Protection Status (SPS)) in 2017

	Temporary protection	Refugee
Residency	The right to reside in Hungary until 4 March 2023	The right to reside for three years
Healthcare	Free	Free for 6 months
Education	Free	Free below the age of 21
Shelter	State-provided accommodation	Stay in the asylum reception facilities for 30 days
Financial support	HUF 22,800 per month per adult and HUF 13,700 per month per child until the start of a work contract	

Notes: Data are from UNHCR. People with subsidiary protection have the same rights, thus the social costs are the same, but they have no right to vote; they receive different travel document; they have access to citizenship after 8 years of residing in Hungary. Education refers to public education (nurseries, kindergartens, elementary and high schools).

Table A5: The Rights of People with Temporary Protection Status and with Refugee Status

B Appendix: Shift in Public Opinion – Refugee Composition versus Deep Feelings Towards Refugees

We demonstrate that the 2022 Ukrainian refugee crisis was accompanied by a large increase in tolerance for refugees, reversing the strong anti-refugee environment following the first refugee crisis in 2015-16. It is, however, difficult to test whether changes in public opinion are driven by changes in Hungarians' deep feelings towards refugees or rather by changes in their understanding of who refugees are. While our data do not allow us to precisely decompose these two mechanisms, we argue that changes in refugee composition (in terms of race, religiosity, and European identity) has been an important determinant of the shift in public opinion.

While the majority of 2015-16 arrivals came from non-European, non-Christian, non-white countries like Afghanistan, the number of people fleeing war in Ukraine far exceeded the number of non-European, non-Christian and non-white arrivals from any other countries in 2022. In 2015, the Hungarian Statistical Office registered 177,135 asylum seekers with 64,587 (36.5%) from Syria, 46,227 (26.1%) from Afghanistan, 24,454 (13.8%) from Kosovo, 15,157 (8.6%) from Pakistan, 9,279 (5.2%) from Iraq and 4,059 (2.3%) from Bangladesh.[75] In 2015, approximately 96.6% of the asylum seekers came from non-European, non-Christian, non-white countries. Similarly in 2016, the majority of the asylum seekers (total number is 29,432) arrived from culturally and religiously different countries; 11,052 (37.5%) from Afghanistan, 4,979 (16.9%) from Syria, 3,873 (13.2%) from Pakistan, 3,452 (11.7%) from Iraq and 1,286 (4.4%) from Iran. In 2016, approximately 97.5% of the asylum seekers were fleeing from non-European, non-Christian, non-white countries. Only a handful of them (508 in 2015, 432 in 2016 and 1291 in 2017) received

[75] In contrast, the *total* number of asylum seekers was less than 110 thousands over the 15 years between 2000-2014. Data is drawn from the Hungarian Central Statistical Office (Stadat Table 22.1.1.27).

refugee status. Nonetheless, the majority of people with granted refugee status had no ethnic, cultural or religious connection to Hungary (see the year of 2017 in Table A4). By contrast, only 30 people received refugee or subsidiary protection status in 2022 while 29,847 people fleeing war in Ukraine received temporary protected status.[76]

Therefore it is reasonable to assume that people understood the term *menekülő* (people fleeing) – as in the survey question – differently in 2016-17 *versus* in 2022. However, in past surveys we also have data on how the Hungarians' attitudes towards refugees from certain countries have changed over time. By plotting the attitudes towards one particular ethnicity over time, we hold roughly constant the racial and religious features of refugees while allowing the meaning of "people fleeing" (*menekülő*) and the dominant political discourse to vary over time. In other words, we control for the composition effects that allows us to detect (changes in) deep attitudes towards refugees.[77]

Figure A1 shows public opinion towards four different ethnicities over time: ethnic Hungarians, Chinese, Arabs and Piresians.[78] Changes in public opinion towards specific ethnic groups slightly follows the general trend as in Figure 1 (although changes are smaller in magnitude) that provides some evidence that not only the understanding of who refugees are have been changing but also the general (deep) attitudes towards immigrants.[79] Survey respondents have had a very welcoming attitude towards ethnic Hungarians over time (bottom left panel of Figure A1). In 2014 (pre-crisis) and in 2022

[76]Appendix A documents that it is unlikely that the vast majority of Hungarians personally encountered a refugee during the refugee crises given the extremely low number of people staying in Hungary. Nonetheless, in Section 3 we show that the dominant political discourse emphasized clearly who refugees or migrants were both in 2015-16 and in 2022.

[77]One possible concern about holding refugee's racial and religious feature fixed is that the political discourse might have been changing about that particular country and about that particular ethnic group.

[78]We only have limited amount of historical data on attitudes over time. TÁRKI usually surveys public opinion about salient issues (for instance, TÁRKI only asked respondents about Albanian refugees fleeing Kosovo in 2015, when a large number of Albanians arrived to Hungary).

[79]The wording of the questions was *"Do you think that refugees with the following ethnicities should be welcome?"*. Possible answers were "Yes", "No" and "Do not know" in surveys before 2022. In the 2022 survey waves, respondents had four options: "Not at all", "Rather not", "Rather yes" and "By all means", which we re-classified as "No" (first two options) and "Yes" (last two options).

(second refugee crisis), more than 90% of respondents would allow in ethnic Hungarian refugees. In 2015 and 2016, however, public opinion even towards ethnic Hungarians trended in an anti-refugee direction with the result that only 70% of all respondents reported that Hungary should admit ethnic Hungarians.[80] In January 2017, this number was still around 76% that is significantly lower than at any time before (in the 2014) and after the first refugee crisis (in 2022). This provides descriptive evidence that during the years of the first refugee crisis, there was a decline in the general (deep) attitudes towards immigrants. Similarly, attitudes towards Piresians (bottom right panel of Figure A1) follow the pattern of the general attitudes (as in Figure 1), while the trend increase in the attitudes towards Chinese (top left panel) might be conditioned by the gradually and significantly improving official relationships between Hungary and China. Nonetheless, general hostility towards Arabic refugees (top right panel) seems to be constant over time.

Figure A2 provides additional evidence that shifts in public opinion are *partly* driven by changes in the deep feelings towards refugees. Respondents were asked their views about Syrian, Afghan, Iraqi, Albanian (from Kosovo), Pakistani and Somalian refugees in late 2015 and in early 2016. Consistent with the general trend showing that people turned decisively against refugees after the outbreak of the first refugee crisis, we find that attitudes towards all ethnicities are unanimously more negative in the 2016 survey wave than in the previous one from 2015. Again, this reveals that (general or deep) attitudes towards refugees change even if we fix refugee characteristics. We note, however, that shifts in public opinion between 2014 and 2022 can certainly not be explained only by these relatively moderate shifts in deep feelings towards immigrants.

[80]This might be partly explained by changes in the wording of the questions. In the October 2015 and in the January 2016 waves, respondents were asked their views about "ethnic Hungarians from Ukraine", while in the other waves the question referred to "ethnic Hungarians" in general. Importantly, the wording in the January 2017 survey was exactly the same as in the 2014 and 2022 surveys.

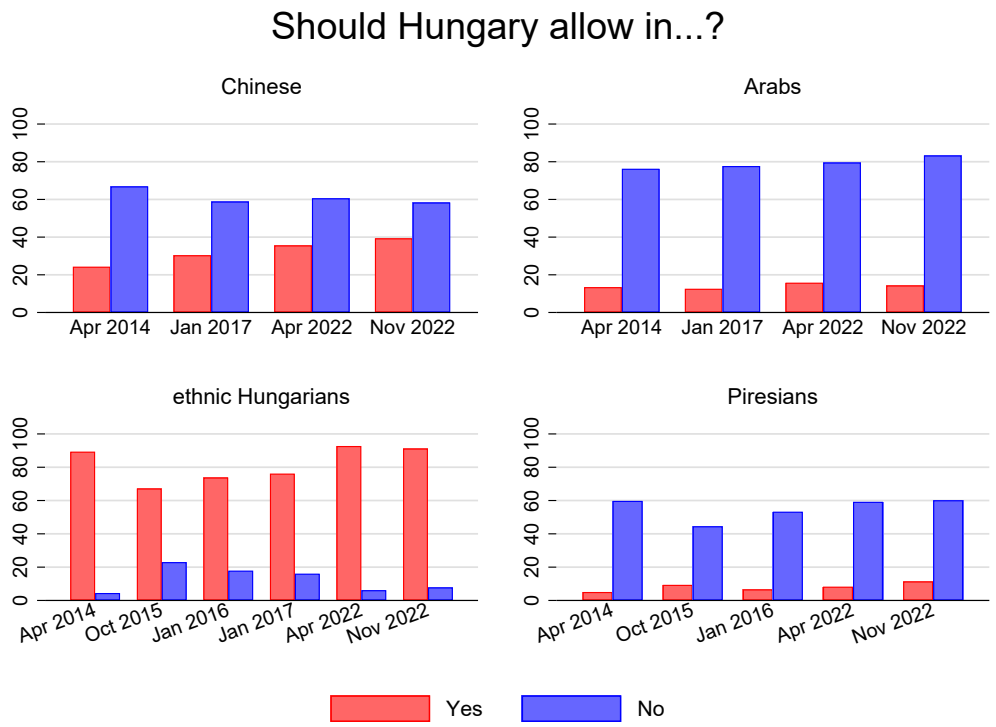

Figure A1: Public Opinion towards Refugees of Four Ethnic Groups Over Time

Note: Respondents were asked their views about ethnic Hungarians "from Ukraine" in October 2015 and in January 2016, while in the other waves the question generally referred to ethnic Hungarians.

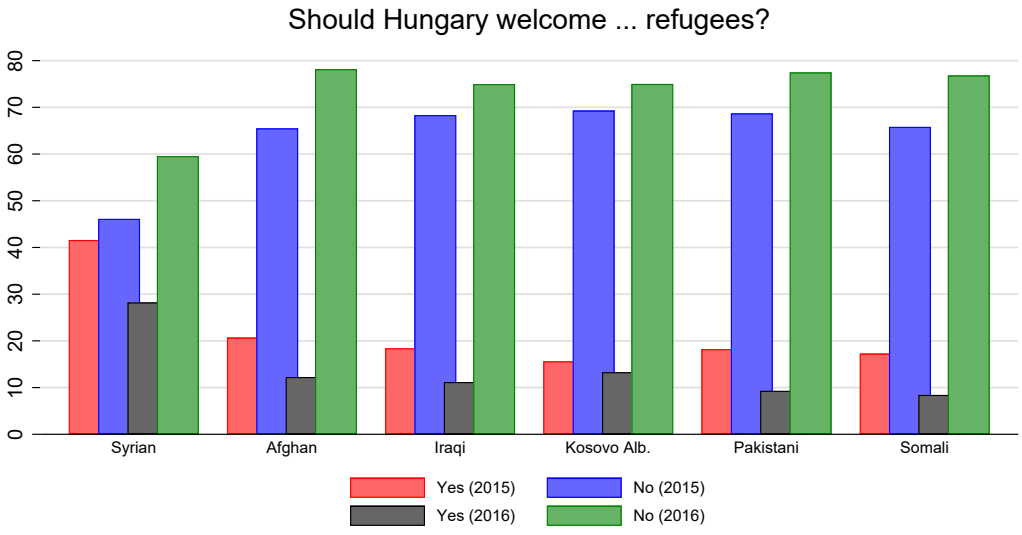

Figure A2: Public Opinion towards Refugees of Six Ethnic Groups in 2015 and in 2016

C Appendix: Summary Statistics – TÁRKI

	Omnibusz survey year and month					
	April 2014	January 2016	October 2016	January 2017	April 2022	November 2022
Fidesz supporter	31.25%	31.28%	32.80%	33.31%	45.50%	36.05%
	(46.38)	(46.39)	(46.97)	(47.16)	(49.82)	(48.04)
Female	53.37%	53.37%	53.37%	53.37%	53.37%	53.59%
	(49.91)	(49.91)	(49.91)	(49.91)	(49.91)	(49.89)
Primary education	50.99%	50.99%	50.99%	50.99%	50.99%	50.78%
	(50.02)	(50.02)	(50.02)	(50.02)	(50.02)	(50.02)
Secondary education	31.33%	31.33%	31.33%	31.33%	31.33%	32.58%
	(46.40)	(46.40)	(46.40)	(46.40)	(46.40)	(46.89)
Higher education	17.68%	17.68%	17.68%	17.68%	17.68%	16.64%
	(38.17)	(38.17)	(38.17)	(38.17)	(38.17)	(37.26)
Age	48.11	48.46	47.95	47.91	48.45	48.45
	(17.68)	(16.74)	(16.39)	(16.01)	(17.58)	(16.99)
Married	54.48%	49.77%	51.18%	46.98%	54.18%	56.65%
	(49.82)	(50.03)	(50.01)	(49.93)	(49.85)	(49.58)
Divorced	12.40%	14.98%	17.13%	16.05%	12.31%	13.24%
	(32.98)	(35.70)	(37.69)	(36.72)	(32.88)	(33.91)
Widowed	12.45%	12.57%	13.02%	13.72%	13.99%	11.77%
	(33.04)	(33.16)	(33.67)	(34.42)	(34.71)	(32.24)
Single	20.56%	21.37%	18.44%	22.53%	19.51%	18.33%
	(40.44)	(41.01)	(38.80)	(41.81)	(39.65)	(38.71)
Student	4.98%	3.14%	2.28%	2.42%	3.00%	0.97%
	(21.76)	(17.46)	(14.94)	(15.38)	(17.08)	(9.81)
Unemployed	7.43%	4.86%	3.70%	3.22%	2.44%	2.75%
	(26.24)	(21.51)	(18.89)	(17.66)	(15.45)	(16.37)
Retired	31.49%	29.43%	28.47%	27.02%	24.96%	24.13%
	(46.47)	(45.59)	(45.15)	(44.42)	(43.30)	(42.81)
Church attendance	15.57%	13.81%	12.23%	10.05%	14.58%	12.27%
	(36.27)	(34.52)	(32.79)	(30.07)	(35.30)	(32.82)
Very religious	14.61%	8.47%	9.36%	5.63%	10.71%	7.75%
	(35.34)	(27.85)	(29.13)	(23.06)	(30.94)	(26.74)

Notes: Data comes from TÁRKI Omnibusz surveys. Means are population weighted. Standard errors are in parentheses. Definition of variables are presented in Table A8.

Table A6: Summary Statistics (TÁRKI surveys)

D Appendix: Summary Statistics – ESS

	Survey year						
	2010	2012	2014	2016	2018	2020	2022
Fidesz supporter	35.25%	31.04%	23.71%	35.05%	30.64%	31.57%	45.48%
	(47.79)	(46.28)	(42.54)	(47.73)	(46.11)	(46.49)	(49.82)
Attitude*	41.60	44.13	40.24	34.75	39.37	40.75	43.57
	(20.92)	(21.17)	(20.18)	(21.67)	(20.14)	(19.98)	(18.08)
Female	53.36%	53.14%	53.13%	52.95%	52.87	62.94	53.36
	(49.90)	(49.91)	(49.92)	(49.93)	(49.93)	(48.31)	(49.91)
Primary education	53.73%	51.92%	53.55%	51.30%	48.05%	47.41%	50.99%
	(49.88)	(49.98)	(49.89)	(50.00)	(49.98)	(49.95)	(50.01)
Secondary education	32.27%	32.39%	29.74%	30.91%	33.11%	37.52%	31.33%
	(46.77)	(46.81)	(45.73)	(46.23)	(47.07)	(48.43)	(46.41)
Higher education	13.94%	15.40%	16.24%	17.48%	18.65%	14.51%	17.68%
	(34.65)	(36.11)	(36.89)	(37.99)	(38.96)	(35.23)	(38.17)
Age	46.39	46.65	47.72	48.05	48.64	50.55	48.45
	(18.68)	(18.57)	(18.91)	(18.82)	(19.03)	(18.64)	(17.58)
Married	47.05%	43.40%	46.34%	47.46%	44.38%	53.35%	54.18%
	(49.93)	(49.57)	(49.88)	(49.95)	(49.70)	(49.90)	(49.85)
Divorced	11.97%	13.20%	11.55%	9.50%	9.84%	9.12%	12.32%
	(32.47)	(33.86)	(31.97)	(29.33)	(29.79)	(28.80)	(32.88)
Widowed	11.22%	12.50%	12.39%	12.61%	12.72%	13.64%	13.99%
	(31.57)	(33.08)	(32.96)	(33.21)	(33.33)	(34.33)	(34.70)
Single	29.76%	30.91%	29.72%	30.43%	33.06%	23.90%	19.52%
	(45.73)	(46.22)	(45.71)	(46.03)	(47.06)	(42.66)	(39.65)
Student	9.07%	9.58%	8.42%	6.90%	8.11%	5.21%	3.00%
	(28.73)	(29.43)	(27.78)	(25.36)	(27.30)	(22.22)	(17.08)
Unemployed	6.92%	8.36%	4.36%	2.37%	2.44%	2.57%	2.44%
	(25.38)	(27.69)	(20.43)	(15.22)	(15.43)	(15.82)	(15.45)
Retired	30.48%	25.92%	26.59%	25.85%	25.55%	30.00%	24.96%
	(46.05)	(43.83)	(44.19)	(43.79)	(43.63)	(45.84)	(43.30)
Church attendance	17.25%	14.08%	14.78%	15.81%	16.34%	18.16%	14.58%
	(37.79)	(34.79)	(35.50)	(36.50)	(36.99)	(38.57)	(35.30)
Very religious	18.88%	14.14%	10.16%	12.94%	11.07%	14.78%	10.71%
	(39.15)	(34.85)	(30.22)	(33.57)	(31.38)	(35.50)	(30.94)

Notes: Data comes from ESS surveys (2010–2020) and TÁRKI Omnibusz survey (April 2022). Means are population weighted. Standard errors are in parentheses. Definition of variables are presented in Table A8. *Attitude variable is survey respondents' attitudes towards immigrants (on a 0-100 scale).

Table A7: Summary Statistics (ESS and TARKI surveys)

E Appendix: Variable Definition

Variables	Description
Fidesz supporter	Dummy equal to 1 if supported Fidesz–KDNP allience
Female	Dummy equal to 1 if individual is female
Primary education	Dummy equal to 1 if highest level of education is elementary school (általános iskola)
Secondary education	Dummy equal to 1 if highest level of education is high school (gimnázium) or vocational training school (szakmunkásképzö iskola) secondary school with matriculation (szakközépiskola)
Higher education	Dummy equal to 1 if highest level of education is a Bachelor's, Mater's or Doctoral degree
Age	Age in years
Married	Dummy equal to 1 if married
Divorced	Dummy equal to 1 if divorced
Widowed	Dummy equal to 1 if widowed
Single	Dummy equal to 1 if single
Student	Dummy equal to 1 if student
Unemployed	Dummy equal to 1 if unemployed
Retired	Dummy equal to 1 if retired
Church attendance	Dummy equal to 1 if participating in religious services at least once a month
Very religious	Dummy equal to 1 if being religious and following the teaching of the Bible

Table A8: Variable Definition for Data from TÁRKI and ESS Survey Waves

F Appendix: Trends in Public Opinion with Additional Survey Waves

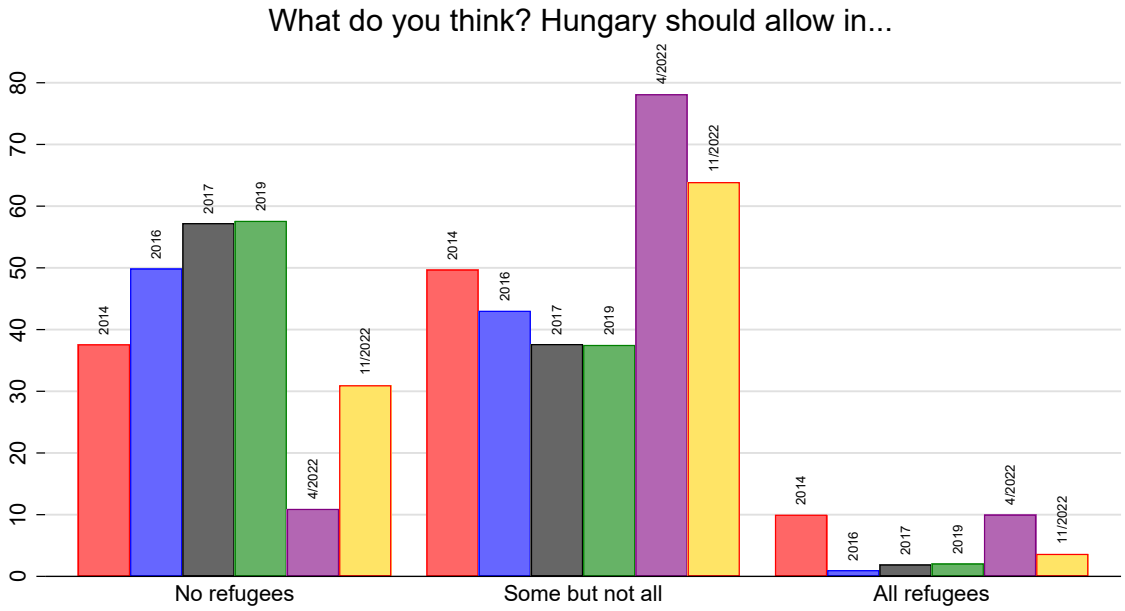

Figure A3: Trends in Public Opinion towards Refugees – Additional Survey Waves

Notes: The bar 2017 shows averages of data from October 2016 and January 2017, and the bar 2019 presents the averages of data from October 2018 and January 2019. We do not use data from 2018-19 in the main analysis as we have no information on partisan affiliation in those waves. Results are weighted.

G Appendix: Analysis of Non-Response Rates – April and November 2022

It is important to think carefully about item non-response (that occurs when some measurements are present for a survey respondent, but at least one measure of interest is missing (Berinsky 2008)) and about the potential implications of these missing items on our results. Figure A4 shows the non-response rates to immigration questions in April and in November 2022, and it reveals that non-response rates to immigration questions decreased systematically from April to November.[81] For the questions on refugees from different source countries, non-response rate decreased to below 2% from the initial proportions of 3-7%.[82] Similarly, while non-response rate to immigrants' ethnicity question was around 4-5% in April, this proportion decreased to around 2% by November.[83]

Research has shown that *"do not know"* responses arise due to question wording, interviewer behavior, and respondent characteristics (Berinsky 2008). It would be, therefore, a mistake to interpret the *"do not know"* responses as an evidence for the lack of views or opinion.

To obtain an accurate picture of the public opinion, we should understand whether those who did not respond to any immigrants questions are systematically different from those who did and if so how this difference affects the conclusion we draw. Non-response bias might arise, for instance, if majority of the non-respondents in April were simply not comfortable expressing strong anti-immigrant attitudes during a then promoted "welcome culture" towards refugees. If this is true, then we systematically overestimate the

[81] We define non-response rate as the sum of the proportions of those respondents who have marked one of the following two options: "I do not know" or "Refuse to answer".

[82] Non-response rate for refugees from Ukraine, however, were remarkably small in both waves.

[83] The exception is ethnic Hungarians, where the non-response rate is only around 1% in both waves. From the non-response analysis, we omitted the questions about Piresians and Piresistani (with non-response rates between 23-30% in both waves.), as in these cases, *"do not know"* is the legitimate answer.

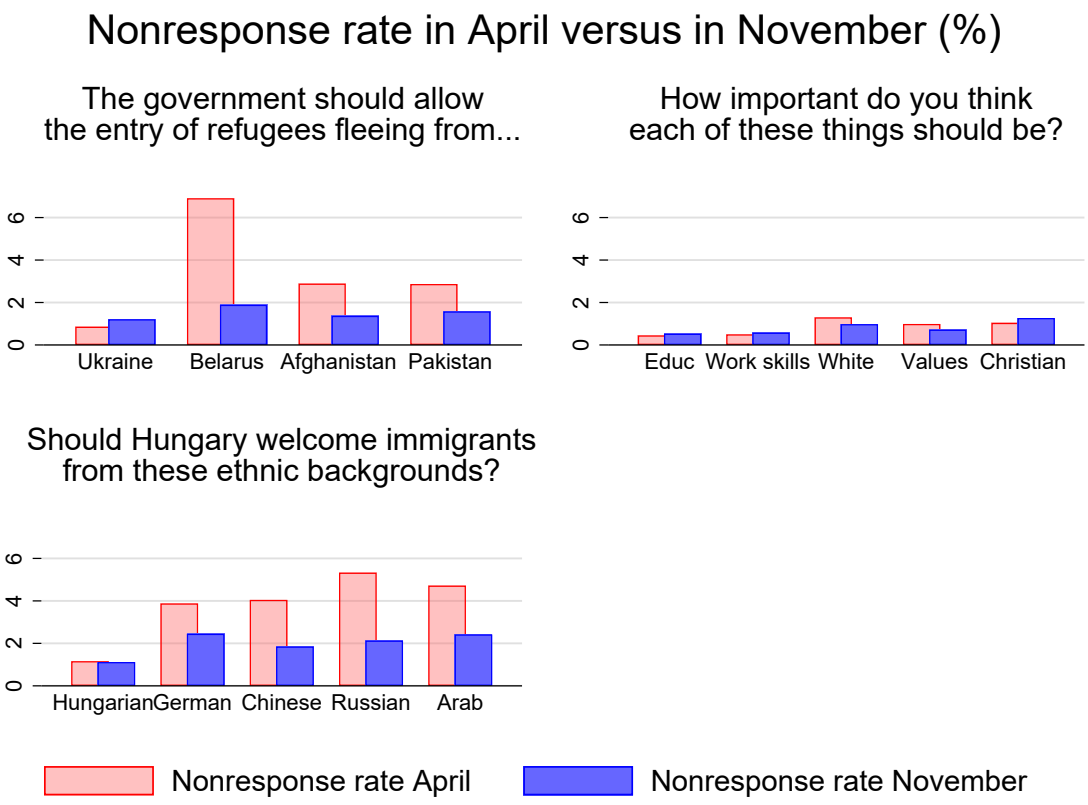

Figure A4: Non-response rate in April *versus* in November (%) to Three Types of Immigration Questions

magnitude of the change in anti-immigrant attitudes from April to November. In fact, Krosnick (2002) echoes this claim and writes that *"the vast majority of NO responses are not due to completely lacking an attitude and instead result from a decision not to reveal a potentially embarrassing attitude, ambivalence, or question ambiguity"* (p. 99). Similarly, Berinsky (2004) argues that some individuals are likely to hide their socially unacceptable opinions behind a *"do not know"* response.

Thus, to consider the meaning of the *"do not know"* responses in our surveys, we examine the answers that non-respondents give to other immigrant-related questions on the same survey. To do so, we created a group of non-respondents which consists of all

respondents who failed to answer *at least one* of the eleven immigration questions.[84] We define this group as the *non-respondent group* that includes 130 respondents in April (out of 1,023), and 91 respondents in November (out of 1,000). The distribution of the number of questions that non-respondents failed to answer showed that both in April and November, most of the non-respondents did not answer at most 4 questions (out of 11). Thus, we have a good knowledge about the general immigrant attitudes of the non-respondents, which allows us to compare the mean of the available answers of the non-respondent group with the overall mean of responses. With the aid of a close examination of the comparisons, Figure A5 reveals that the opinion of non-respondents is not much different from the population average; if anything, non-respondents have a more favourable view of migrants and refugees, both in April and November. This provides some evidence that the decision to abstain from a survey question does not mean that the respondent is devoid of relevant predilections. From these results we conclude that the systematically decreasing proportion of non-respondents, from April to November, is unlikely to contribute to the worsening of the migrant-related sentiment of the Hungarian population in November.

[84] Two questions on source countries, four questions on importance of values and five questions on immigrant's ethnicity.

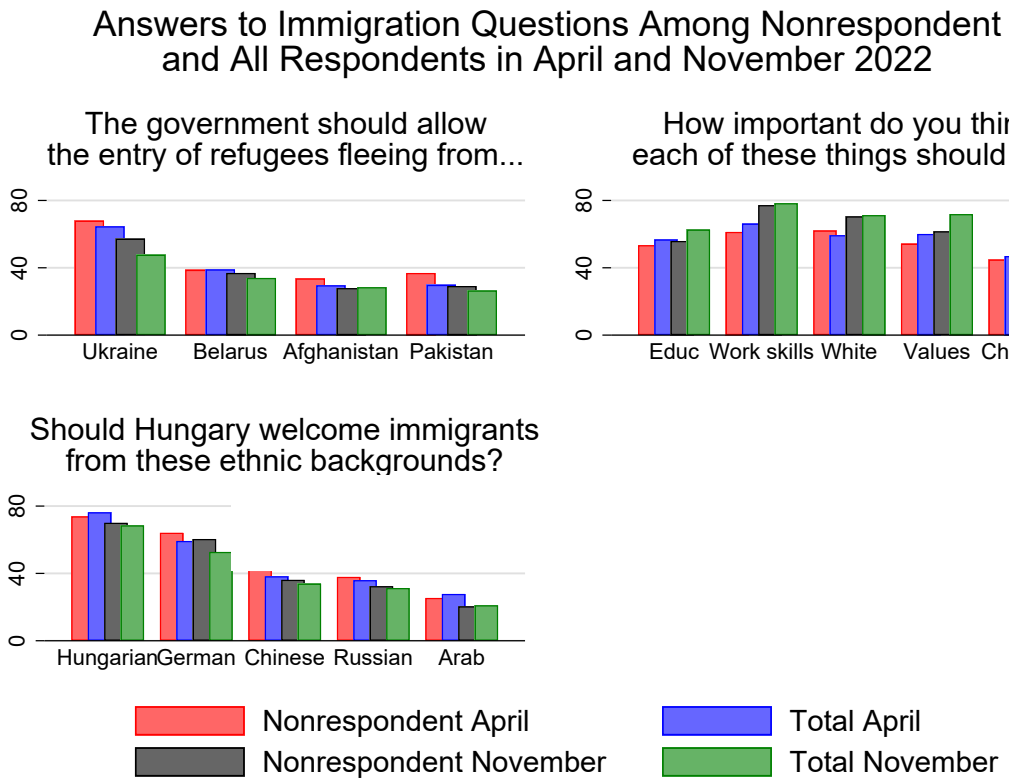

Figure A5: Public Opinion towards Immigrants among Nonrespondents and Respondents in April *versus* in November 2022

H Appendix: Political Socialization

When are immigration attitudes likely to develop? The question of when individuals form their attitudes and how persistent these attitudes are still debated in the literature. While some studies argue that early experiences persist throughout one's life and thus, attitudes are stable (Kustov, Laaker, and Reller 2021), others claim that people consistently change their beliefs in response to contextual factors and current events (Goldstein and Peters 2014). Other work argues that younger adults are more likely to change their attitudes toward immigration than the elderly population as they have limited political experience and they are in the midst of developing their core political beliefs.

To test whether our results are merely driven by the younger cohort, in Figure A6, we

break down opponents to admitting all refugees by their age cohort. The figure clearly reveals that changes in younger adults' anti-immigrant attitudes are larger than changes in attitudes of the elderly population. In particular, the standard deviation of the attitudes of the younger cohort is 14.4%, of the middle-aged cohort is 13.3% and of the elderly cohort is 12.4%. Nonetheless, Figure A6 also clearly shows that the general trend in public opinion is the same across the age cohort and that our findings are not driven by those in their "impressionable years".

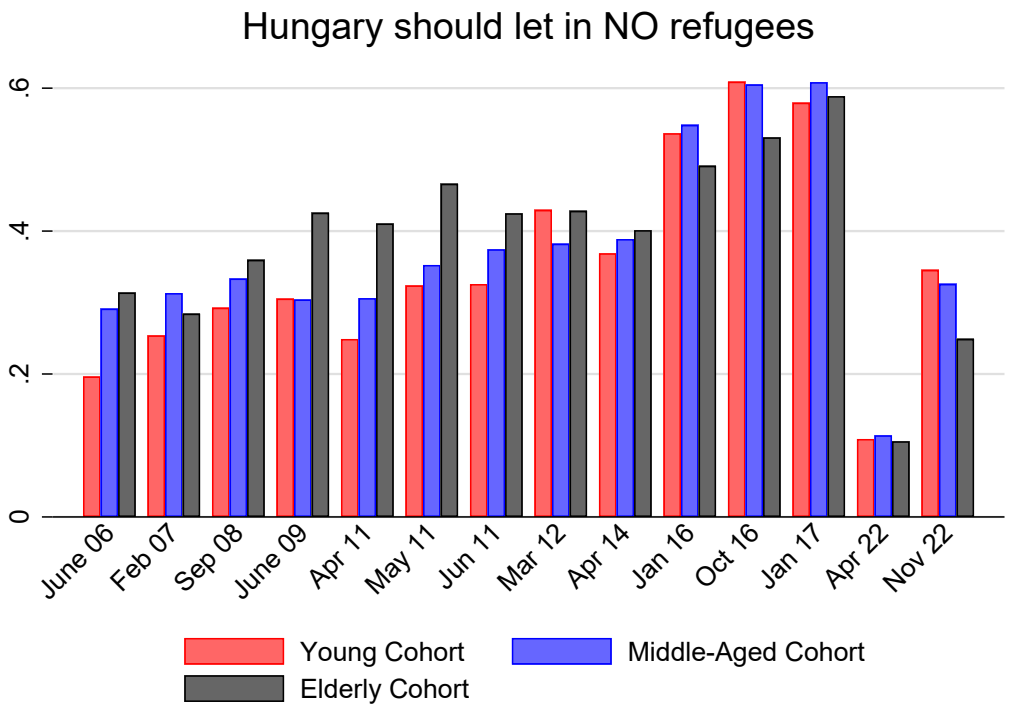

Figure A6: Opposition to Refugees by Age Cohort, 2006–2022

Note: Means are population weighted. Survey respondents between 18 and 34 are in the young cohort, between 35 and 64 are in the middle-aged cohort and survey respondents 65 years of age and older are in the elderly cohort.

I Appendix: Support for Refugees, Hostility towards Migrants? – Evidence from 2016

The immigrant populations in the second refugee crisis not only differ in terms of their *religious, ethnic and cultural* background, but also in terms of their reasons for migrating. In the years of the first refugee crisis – unlike Syrian, Afghan and other asylum seekers who were fleeing armed conflict – many of the Middle Eastern and North African arrivals were seeking a new home in Europe for *economic reasons*. Therefore, one possible concern is that increase in the anti-refugee sentiments during the first refugee crisis (see Figure 1) was mainly driven by hostility towards migrants (instead of refugees) arriving to Hungary for economic reasons.

To address this concern, we begin by examining Hungarian public opinion towards people from different countries in January and October 2016. First, we are able to compare the attitudes of Hungarians towards two refugee populations (with different racial and religious features) fleeing war. In other words, we hold the presence of war as well as the general political context fixed and compare the attitudes of Hungarians towards two different refugee populations. If increase in the anti-refugee sentiments during the first refugee crisis was mainly driven by hostility towards migrants (with economic motivation), we would see that Hungarians are in general welcoming towards any refugees (irrespective of their race, religion and values) fleeing war in 2016. Yet Figure A7 reveals that people were clearly opposed to admitting refugees (presumably most of them being non-European, non-Christian, non-white refugees) from Syria and Afghanistan, while they were more welcoming towards ethnic Hungarians coming from Ukraine. In 2016, Russia had already occupied Crimea and Donetsk. While the intensity of the conflict might not be comparable to the intensity of conflicts in the Middle East, still there was a non-zero probability that ethnic Hungarians in Ukraine were at risk of violent conflict.

It is nonetheless reasonable to assume that Hungarian survey respondents in 2016 were not anticipating that ethnic Hungarians were likely to flee from war (or at least it was reasonable not to expect a mass arrival of ethnic Hungarians) given that vast majority of ethnic Hungarians living in Zakarpattia faced no physical risk from that conflict at that time.[85] We, therefore, turn to another survey question from 2016 that asked survey respondents about their attitudes towards immigrants with different motivation to migrate. Even if the intensity of conflict in Ukraine and in the Middle East is not comparable and even if survey respondents (rationally) expected lower number of refugees from Ukraine than from the Middle East, this theoretical question allows us to detect how respondents feel about arrivals migrating due to different reasons. Figure A8 clearly shows that the depth of the anti-immigrant sentiment in Hungary was not driven by the economic motivation of the immigrants. Even when respondents were asked their views about immigrants having different motivations to leave their homes, majority of the survey respondents were still opposed to people fleeing civil war (despite of possible social desirability bias that in principle should lead to more welcoming attitudes towards civilians fleeing armed conflict) (see Figure A8).

Additionally, Figure A9 provides descriptive evidence that in October 2016, the general hostility towards immigrants was driven by the cultural and racial differences of the arrivals. A majority of the survey respondents strongly agrees that refugees threaten Europe and that cultural mixing threatens basic cultural values in Hungary, while most of them strongly agree that Hungary is culturally homogeneous and should remain so. At the same time, it is clear that survey respondents oppose any immigrants with different racial and cultural background and claim that immigrants from Arab countries or from

[85]Ethnic Hungarians are concentrated in Zakarpattia region (we discuss the share of ethnic Hungarians in Ukraine and in Zakarpattia in Appendix L). In 2014-2016 Hungarians could see hardly any arrivals from Ukraine, despite the ongoing war in Eastern Ukraine since 2014. Data on the number of asylum seekers by citizenship shows hat the number of Ukrainian citizens arriving to Hungary was only 37, 28 and 23 in 2014, 2015 and 2016, respectively. *Source*: Stadat Table 22.1.1.27 of the Hungarian Central Statistical Office.

Sub-Saharan African countries should in no way receive asylum in Hungary.

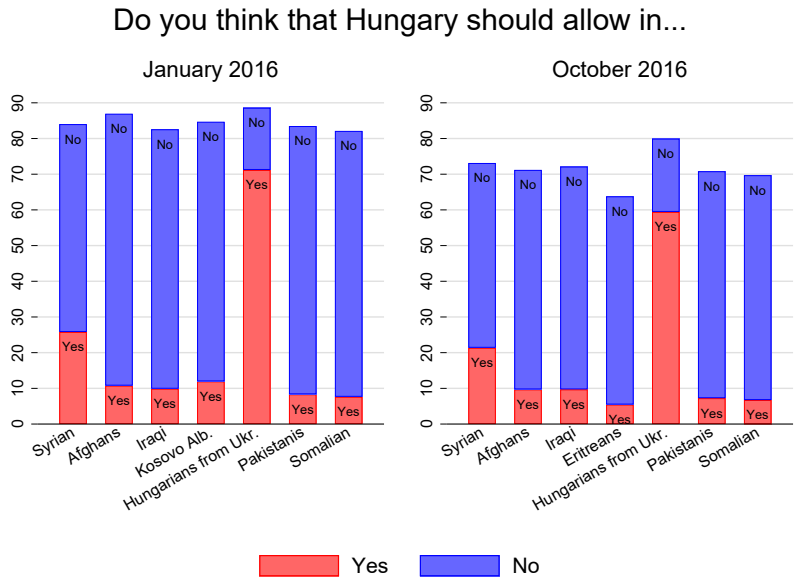

Figure A7: Public Opinion towards Refugees by Source Country in January and in October, 2016

Note: Survey respondents were only asked their views about refugees if their earlier answers to the general anti-immigration question was that some immigrants should be allowed in, while some others should not. Results are weighted. The order of the source countries were randomized.

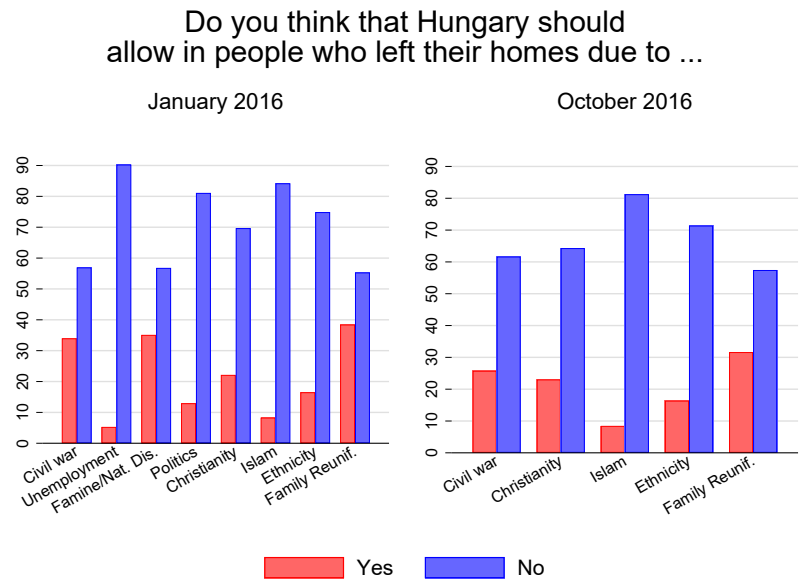

Figure A8: Public Opinion towards Refugees by their Motivation in January and in October, 2016

Note: Survey respondents were only asked their views about refugees if their earlier answers to the general anti-immigration question was that some immigrants should be allowed in, while some others should not. Results are weighted. The order of the main reasons were randomized.

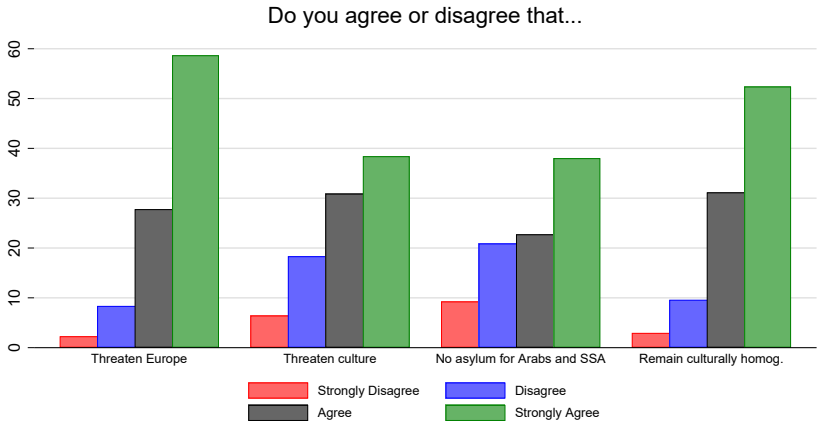

Figure A9: Public Opinion Towards Refugees in October, 2016

Note: Survey respondents were asked how strongly they agree or disagree with the following statement: 1) Refugees threaten Europe; 2) Cultural mixing threaten basic cultural values; 3) Immigrants from Arab countries or from SSA should in no way receive asylum in Hungary; 4) Hungary is culturally homogeneous and it should remain like this. Results are weighted.

J Appendix: Cohort Analysis of the Attitudes I.

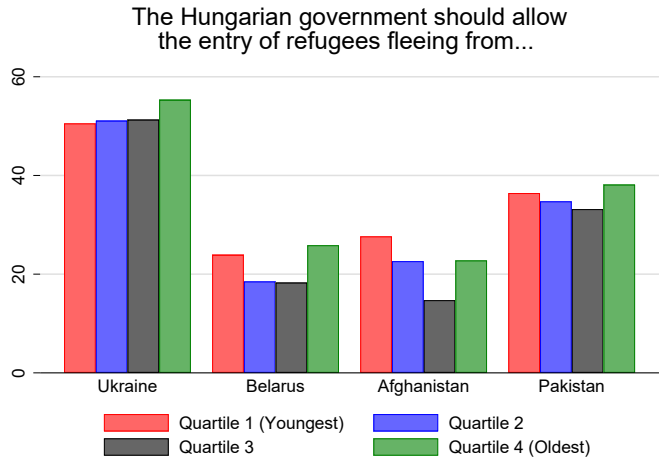

Figure A10: Public Opinion towards Refugees by Source Country and by Age Quartiles, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. E) and results are weighted.

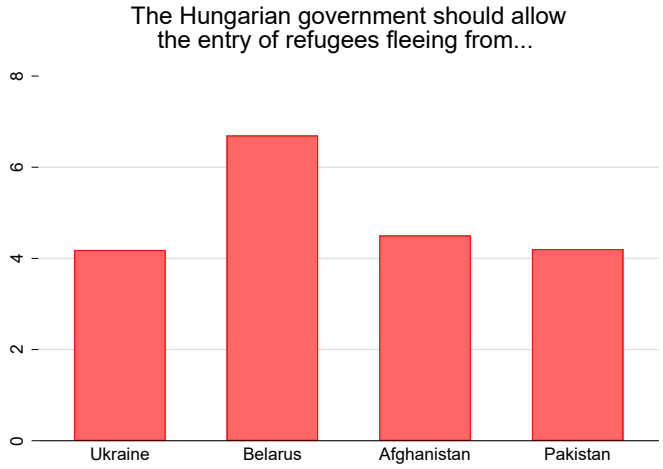

Figure A11: The Extra Score by the Oldest Age Quartile (63+ years) – Public Opinion towards Refugees by Source Country, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. E) and results are weighted.

K Appendix: Cohort Analysis of the Attitudes II.

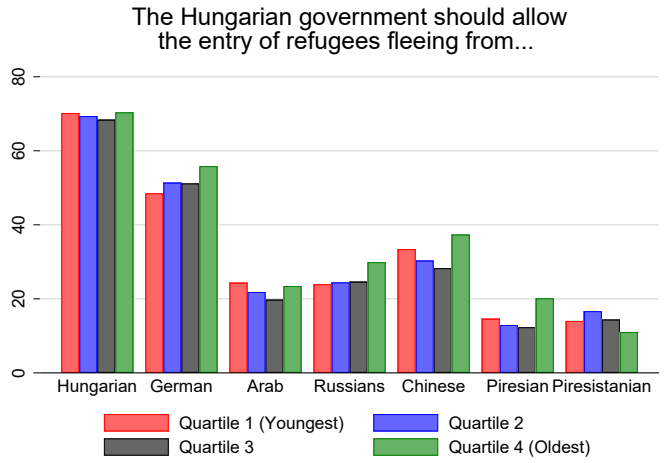

Figure A12: Public Opinion towards Refugees with Different Ethnic Background by Age Quartiles, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. E) and results are weighted.

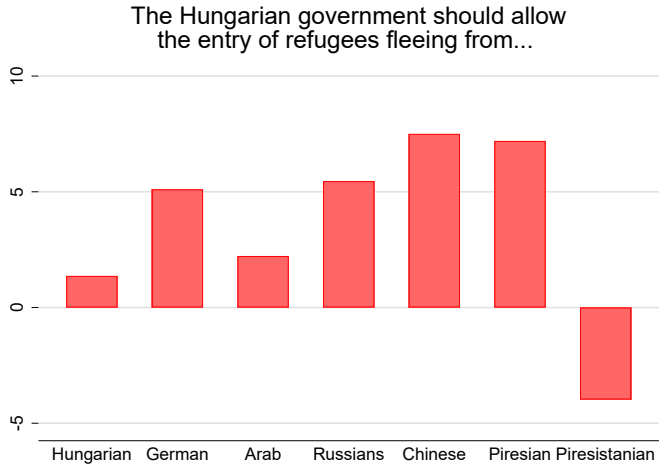

Figure A13: The Extra Score by the Oldest Age Quartile (63+ years) – Public Opinion towards Refugees with Different Ethnic Background, 2022

Note: The figure visualizes the magnitude of the estimated parameters for the effect of age cohort on attitudes towards refugees. Control variables are included (as in App. E) and results are weighted.

L Appendix: The Proportion of Ethnic Hungarians and Roma in Ukraine and Zakarpattia Region

This Appendix addresses two additional questions. First, one might argue that the welcoming attitudes towards Ukrainians are explained by survey respondents' perception that mostly ethnic Hungarians are fleeing from Ukraine. If this is true, then our results could simply show that Hungarians are emphatic for ethnic Hungarians. Second, one might be wondering what percentage of ethnic Hungarians are Roma and what the potential inflow of Roma Hungarians might imply for our results. If the share of Roma Hungarians arriving to Hungary is high, then our results that Hungarians are more welcoming towards refugees from Ukraine despite of the racial differences were particularly surprising and interesting.

L.1 The Share of Ethnic Hungarians in Ukraine

We first show evidence that the share of ethnic Hungarians in Ukraine is very low, irrespective of how we define ethnic Hungarians and how we estimate their population share. Table A9 shows the proportion of ethnic Hungarians over time (1959 – 2001) based on Ukrainian census data (Braun, Csernicskó, and Molnár 2010). The proportion of ethnic Hungarians within Ukraine was in the range of 0.32%-0.36% with a slightly declining trend. Braun, Csernicskó, and Molnár (2010) report that plurality of ethnic Hungarians lived in Zakarpattia region (Transcarpathia region, sharing a border with Hungary). In 1989, 155.7 thousand ethnic Hungarians (of the total ethnic Hungarian population of 163.1 thousand) lived in Zakarpattia, while this number was 151.5 thousand in 2001 (of the total ethnic Hungarian population of 156.7 thousand). Based on census data from 2001, the authors also report that the proportion of ethnic Hungarians was around 12-12.5% within

Zakarpattia region. Importantly, almost all respondents who self-declared themselves as ethnic Hungarians, reported that their mother tongue was Hungarian. Thus, data based on self-identification as well as on mother tongue unanimously suggest that the number of ethnic Hungarians in Ukraine is very small.[86]

	Total	Hungarian		Roma	
	population	Number	Share (%)	Number	Share (%)
1959	41 869 046	149 229	0.36%	22 515	0.05%
1970	47 126 517	157 731	0.33%	30 091	0.06%
1979	49 609 333	164 373	0.33%	34 411	0.07%
1989	51 452 034	163 111	0.32%	47 917	0.09%
2001	48 240 902	156 566	0.32%	47 587	0.10%

Source: Ukrainian Census data in Braun, Csernicskó, and Molnár (2010)

Table A9: The Share of Ethnic Hungarians and Roma in Ukraine between 1959 and 2001

To provide a more recent estimate on the number of ethnic Hungarians within Zakarpattia, Tátrai et al. (2018) prepared a survey-based calculation in 2017.[87] According to this survey, the approximate number of ethnic Hungarians was 130.7 thousand in 2017, a decline of more than 20 thousand persons since 2001. It is very likely that this number got even lower, and probably by a large amount, by February 2022. This suggests that even if all Hungarians were fleeing Ukraine after the 2022 Russian invasion (which was certainly not the case), the proportion of ethnic Hungarians among all refugees arriving to Hungary would have been small.

To provide additional evidence on the low proportion of ethnic Hungarians among arrivals in 2022, we now investigate the change in the number of Ukrainian-born Hungarian citizens who reside in Hungary following the Russian invasion of Ukraine. This is relevant as the majority of the ethnic Hungarian population of Ukraine are already Hun-

[86]The number of Hungarians and of those whose mother tongue is Hungarian is very similar—the latter is somewhat larger due to a couple of thousand Roma whose mother tongue is Hungarian (we provide more details on this in the next subsection).

[87]The survey covered all settlements of Zakarpattia with ethnic Hungarian residents (according to the 2001 census data).

garian citizens, after the Fidesz-led government in 2011 made it administratively very easy for ethnic Hungarians living outside Hungary to obtain Hungarian citizenship.[88] A study by the Central Statistical Office of Hungary shows that only within 5 years in 2011-2015, around 90 thousand ethnic Hungarians living in Ukraine obtained Hungarian citizenship (out of a total of approximately 150 thousand) (CSO 2017). It is, therefore, reasonable to assume that by 2022, a very large proportion of ethnic Hungarians living in Ukraine had Hungarian citizenship. Thus, following the Russian invasion of Ukraine, a significant increase in the number of Ukrainian-born Hungarian citizens residing in Hungary would suggest that a significant share of ethnic Hungarians arrived to Hungary. Yet Table A10 shows that the increase in the number of Ukrainian-born Hungarian citizens residing in Hungary increased by only 6,574 persons in 2022. This is an additional evidence that the share of ethnic Hungarians was very small within the Ukrainian refugee population.

	Roma-nia	Ukraine (incl. Soviet Union)	Serbia (incl. Yugoslavia)	Slovakia (incl. Czechoslovakia)	Other European
2010	127 346	23 814	24 720	22 073	32 593
2011	126 615	23 860	24 387	21 074	32 584
2012	142 384	24 929	25 980	19 844	38 406
2013	156 606	29 705	29 670	19 305	39 856
2014	167 778	35 756	32 819	18 820	43 306
2015	175 019	45 232	35 327	18 368	46 497
2016	179 001	53 403	36 846	17 828	50 161
2017	182 387	59 272	37 497	17 376	54 698
2018	184 811	62 379	38 088	16 836	59 725
2019	186 372	64 055	38 710	16 248	65 034
2020	188 540	65 641	39 376	15 801	70 174
2021	189 897	66 794	39 766	15 310	75 221
2022	190 899	**67 775**	39 890	14 862	79 629
2023	191 975	**74 359**	39 923	14 692	83 701

Source: Central Statistical Office of Hungary Stadat Table 22.1.1.24.
Retrieved on November 3, 2023. Data refer to January 1 in each year.

Table A10: Foreign-born Hungarian Citizens Residing in Hungary by Country of Birth

[88]This was enacted by the 2010 modification of Law LV of 1993, effective from January 1, 2011.

L.2 The Share of Roma within Ethnic Hungarians in Ukraine

Another concern revolves around the share of Roma among ethnic Hungarians living in Ukraine, and the share of Roma Hungarians among ethnic Hungarians arriving to Hungary. If the share of Roma Hungarians arriving to Hungary is high, then our results that Hungarians are more welcoming towards refugees from Ukraine despite of the racial differences were particularly surprising and interesting.

Beyond the lack of recent census data, the lack of clarity of who belongs to Roma minority group as well as the general tendency of denying Roma identities in a self-declared survey make it very challenging to estimate the exact number of ethnic Hungarians with Roma origin in Ukraine. Nevertheless in Table A9, we first report the figures from the 2001 census in Ukraine on the number and proportion of Roma. The Table shows that there were around 47.5 thousand Roma living in Ukraine (0.1% of the total population). Braun, Csernicskó, and Molnár (2010) report that out of the 47.5 thousand Roma, around 14 thousand lived in Zakarpattia region. Out of this 14 thousand Roma in Zakarpattia, 8.7 thousand claimed that their mother tongue was Hungarian.[89] This implies that around 5.5% of the Hungarian speaking population of Ukraine is Roma (Braun, Csernicskó, and Molnár 2010).

Nonetheless, these census-based figures might underestimate the true share of Roma population. Indeed, Molnár, Csernicskó, and Braun (2016) estimate that the number of Roma in Zakarpattia region was around 32 thousand in 2001 (in contrast to 14 thousand as in census data), which further increased to around 47 thousand by 2016 [90] Out of the 47 thousand Roma in Zakarpattia in 2016, around 20 thousand is estimated to have Hungarian mother tongue—so approximately 13.8% Hungarian speakers living in Ukraine are Roma

[89] In the census, these people are categorized as "Roma" (non-Hungarian), but still if their mother tongue is Hungarian, it is reasonable to assume that they are perceived as Hungarians by the general public.

[90] See Table 1 on page 6 in Molnár, Csernicskó, and Braun (2016). The estimation is based on a settlement-level survey conducted in Zakarpattia region and rely on the number of Rome children attending primary schools.

(instead of the census-based estimate of 5.5%).[91] This implies that the share of Roma people among Hungarian speakers living in Ukraine is in the range of 5.5-13.8%, and it is reasonable to assume that the ethnic composition of Hungarian speaking refugees arriving to Hungary is similar to this. In the previous subsection, we showed that the proportion of ethnic Hungarians among all refugees from Ukraine is small, therefore the proportion of Hungarian-speaking Roma is likely to be even smaller.

[91]Recall that Tátrai et al. (2018) estimated that there were 130.7 thousand Hungarians in Zakarpattia in 2017. Tátrai et al. (2018) also estimated that 5.5 thousand Roma Hungarian lived in Zakarpattia in 2017, leaving 125.2 thousand non-Roma Hungarians. If the true number of Hungarian-speaking Roma is 20 thousand, as in Molnár, Csernicskó, and Braun (2016), then this implies a 13.8% (20/(20+125.2)) Roma share among Hungarian speakers.

M Appendix: Opposition to Refugees by Party with the Far-Right Jobbik in the "Other" Category

In Figure A14, we chart the proportion of voters who are opposed to admitting all refugees to Hungary by their partisanship, however, this time, Jobbik voters are in the "other" category before the 2022 survey.

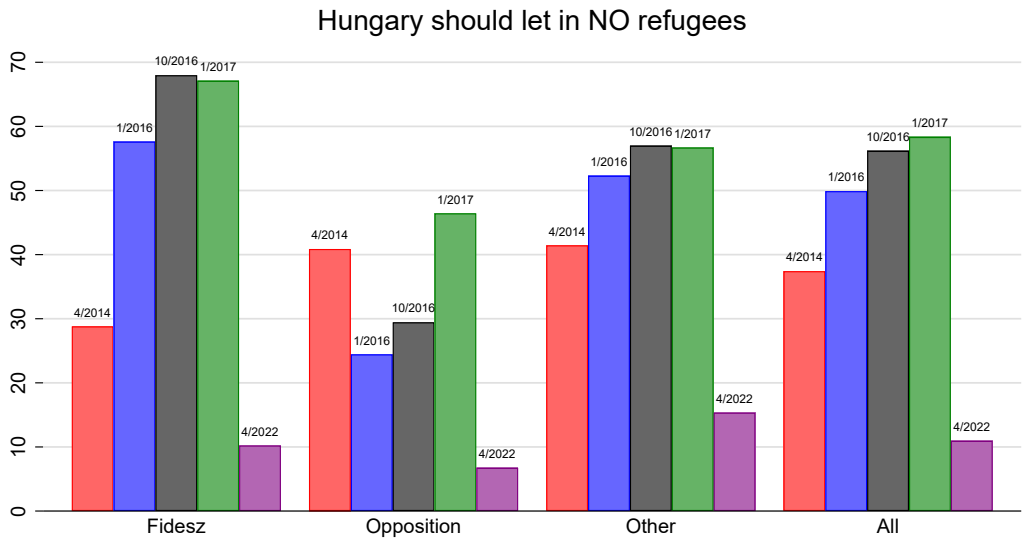

Figure A14: Opposition to Refugees by Party with Jobbik in the Other Category before 2022

N Appendix: Replicating Earlier Results using Data from November 2022

N.1 Public Opinion towards Refugees by Party, November 2022

Similar to Figure 3, we break down respondents' view about refugees by partisanship in November 2022. Figure A15 suggests that supporters of all parties turned to a more anti-immigrant direction: while 10.25% of Fidesz supporters opposed admitting refugees in April, this ratio increased to 28.14% by November 2022. The trend is the same among supporters of other parties; while 8.43% of the opposition voters in April opposed admitting refugees, this ration was 18.67% in November. Figure A16 clearly shows that both Fidesz supporters and Opposition supporters turned against refugees by November and this trend was not driven by the supporter of one particular party.

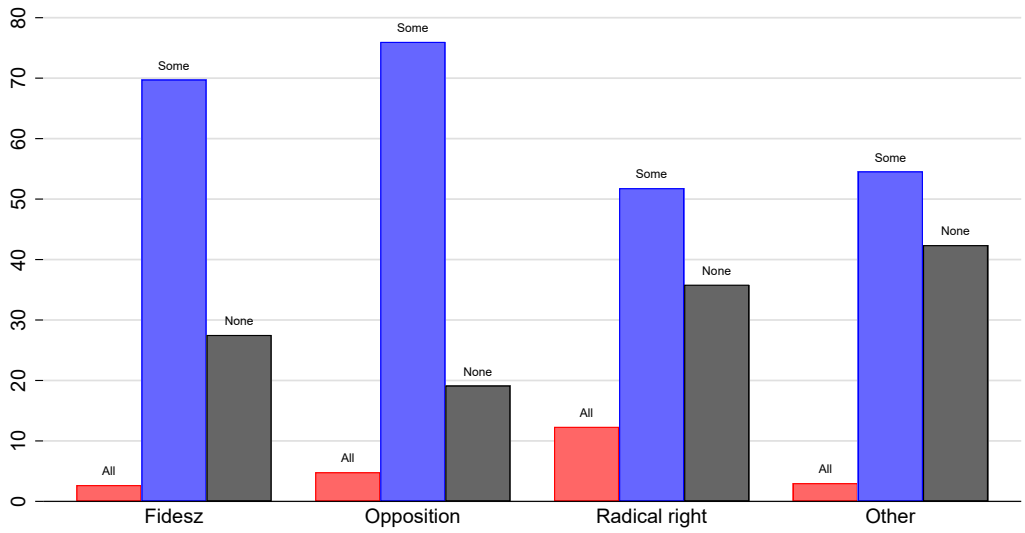

Figure A15: Public Opinion towards Refugees by Party, November 2022

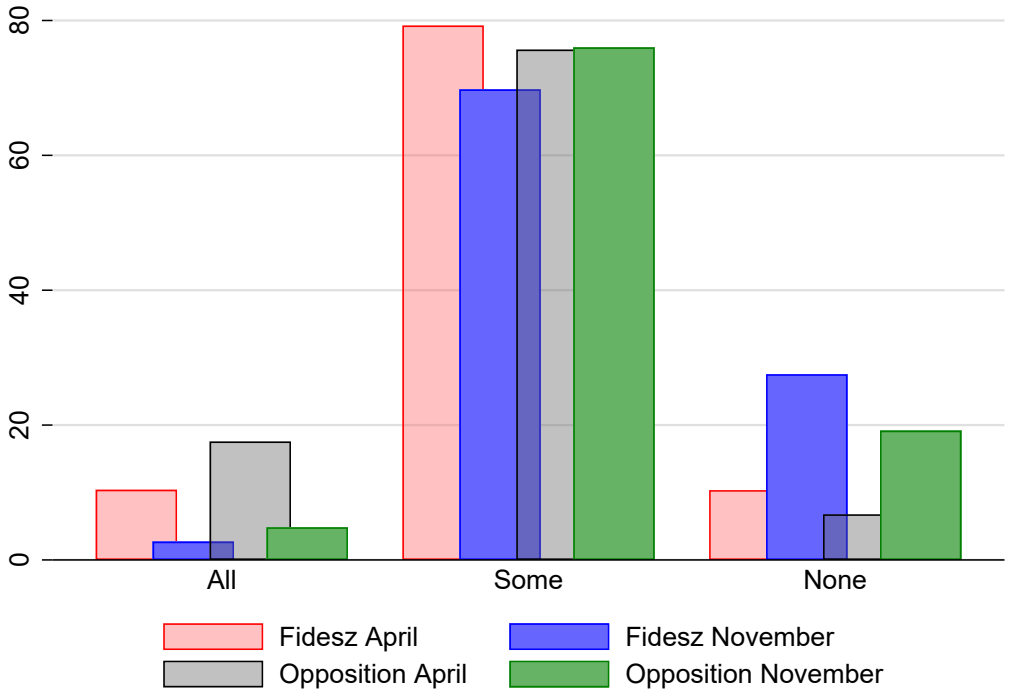

Figure A16: Public Opinion towards Refugees by Party, in April versus in November 2022

N.2 Refugee Preferences: Experimental Evidence from November 2022

Following our practice in Section 5.1, we repeated our experimental design from April 2022 and embedded two experiments in the November wave that asked respondents about their receptivity to refugees fleeing conflict from a particular country. We asked this question twice and first randomized the options of *Ukraine* vs *Belarus*; and then the options of *Afghanistan* vs *Pakistan*. In Figure A17, we show the distribution of responses across the four categories. The distribution of responses clearly indicate that the Hungarian mass public is more receptive to white, European refugees. However, while Hungarians are still more welcoming refugees from European countries and they are still leaning towards Ukrainians, their support for Ukrainians is somewhat weaker in November than it was in April.

Using our November survey, we re-estimate Equation (2). Following the specifications

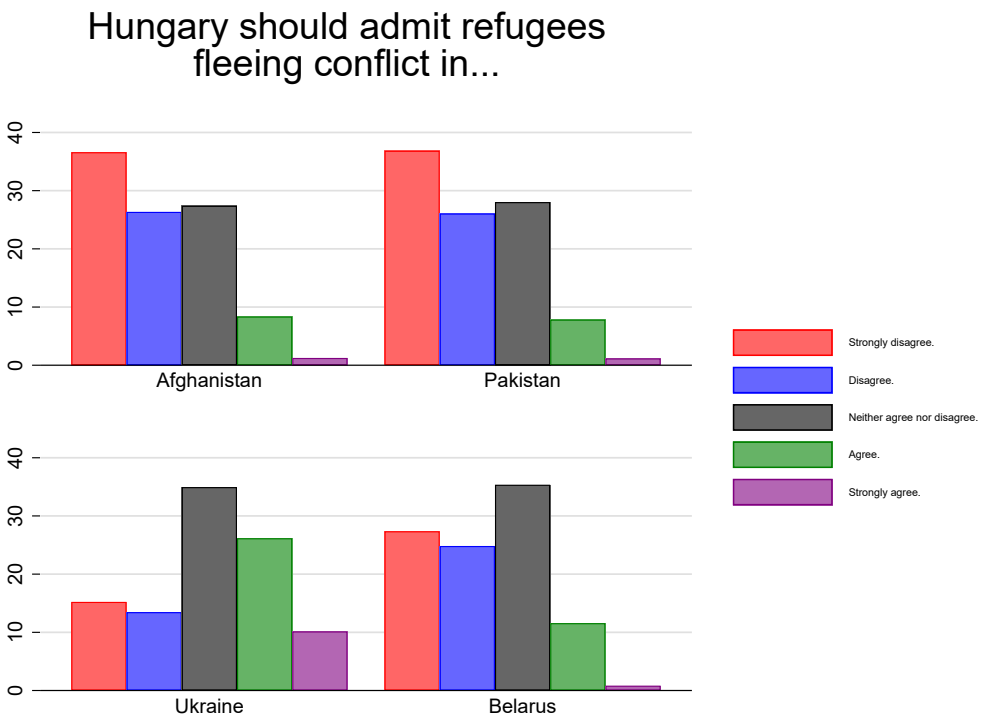

Figure A17: Public Opinion towards Refugees by Source Country, November 2022

and the difference in differences design outlined in Section 5.1, Table A11 presents the main results using data data from November. The results are very similar to our April survey (in Table 2), the positive and statistically significant coefficient on *Europe* × *Conflict* provides evidence that respondents were far more likely to agree to welcome immigrants from Ukraine relative to migrants from any other country. The positive and statistically significant coefficient on *Europe* signifies the importance of race, religion, and values in explaining support for refugees, showing that respondents were more supportive of refugees from a non-conflict country in Europe (Belarus) than from a non-conflict country outside of Europe (Pakistan).

	OLS		Logit	
Europe	0.160**	(2.37)	0.688**	(2.51)
Conflict	-0.063	(-0.68)	-0.601	(-1.47)
Europe × Conflict	0.816 ***	(6.51)	3.108***	(4.59)
Constant	2.141***	(42.49)		
N	1975		594	

Cluster-robust t and z statistics in parentheses, * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$
Both OLS and Logit models include respondent fixed effects.

Table A11: Difference-in-differences results, November 2022

To better convey how the magnitude of these relationships changed from April to November, Figure A18 plots the predicted level of support in April (on the left) and in November (on the right). This figure clearly shows a decline in the pro-immigrant attitudes from April to November and provides evidence that the reception of immigrants in the midst of the crisis is generally very warm at first, but it somewhat cools off by time. Nonetheless, it is also clear that respondents were still far more likely to agree to welcome migrants from Ukraine relative to migrants from any other country and that they are still in favor of white Christian European refugees fleeing open conflict.

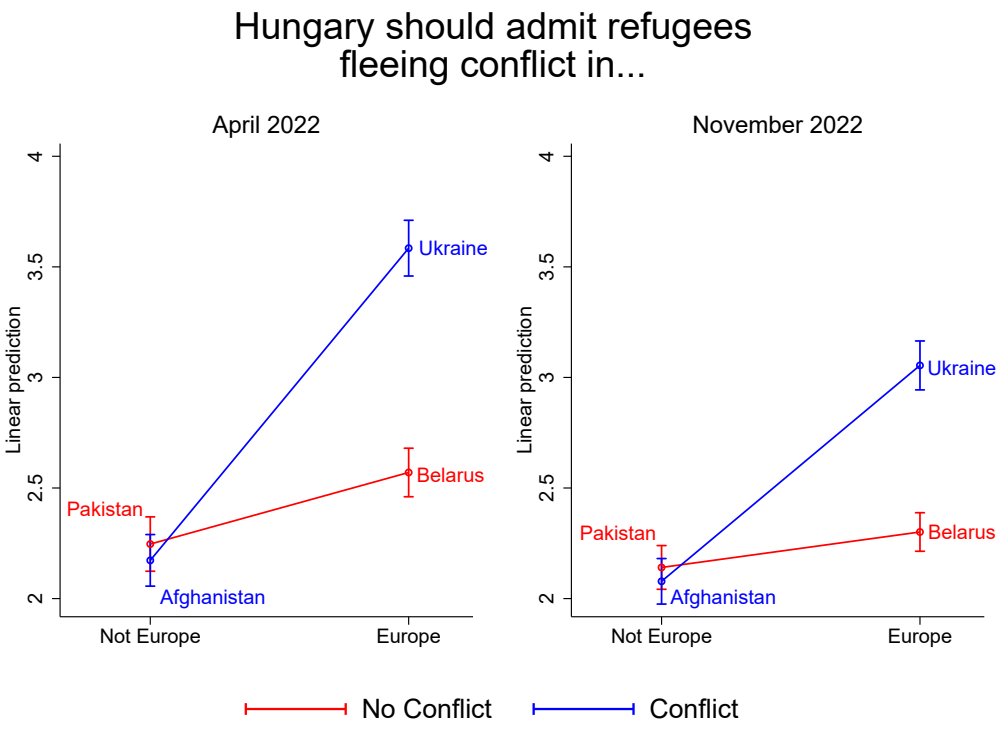

Figure A18: Predicted Support for Refugees, Difference-in-Differences Design – April versus November 2022

N.3 Refugee preferences: Additional Evidence from November 2022

In this section, using data from November 2022, we provide additional descriptive as well as experimental evidence that respondents' attitudes are affected by the race, religion, and values of the immigrants. Figure A19 shows the average support of refugees from different source countries by partisanship in November 2022. While Fidesz voters are more supportive towards refugees fleeing conflict in Ukraine than the population average (51.7 *versus* 47.7), they have, however, roughly the same attitudes towards refugees from the other three countries (36.4 *versus* 33.9 for Belarus, and 29.4 *versus* 28.5 for Afghanistan and 25.7 *versus* 26.5 for Pakistan). Further, Figures A20 and A21 present respondents' attitudes in April vs in November. The Figures show that the slight anti-immigrant turn from April to November was a general trend across all respondents irrespective of their

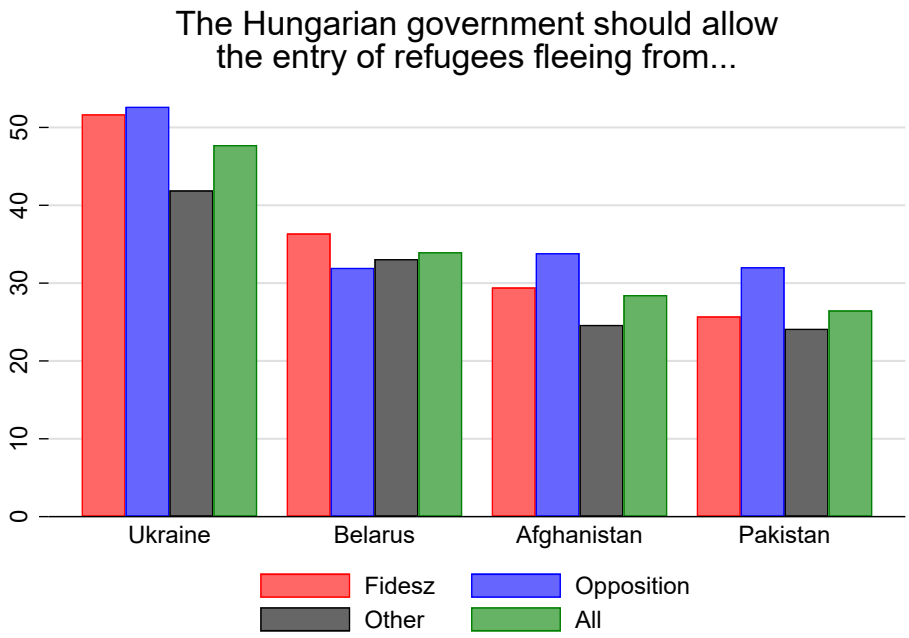

Figure A19: Public Opinion towards Refugees by Source Country and by Party, November 2022

partisanship. Table A12 shows the results in a multivariate context.

We now test – following our April survey experiment – whether race, religion, and values are different manifestations of the same latent concept. First, to test whether racial versus values-based explanations for support for refugees are distinct from one another, we randomly asked survey respondents about the importance of refugees having *white European heritage* or *common values with Hungarians*. This randomization allows us to test whether racial versus values-based explanations for support for refugees are distinct from one another.[92]

We test whether or not asking about the importance of white European heritage or common values with Hungarians affects respondents' views (see Table A13). Similar to our previous results, we find no difference in the distribution of responses based on which

[92]We rely on the same question wording as in April 2022.

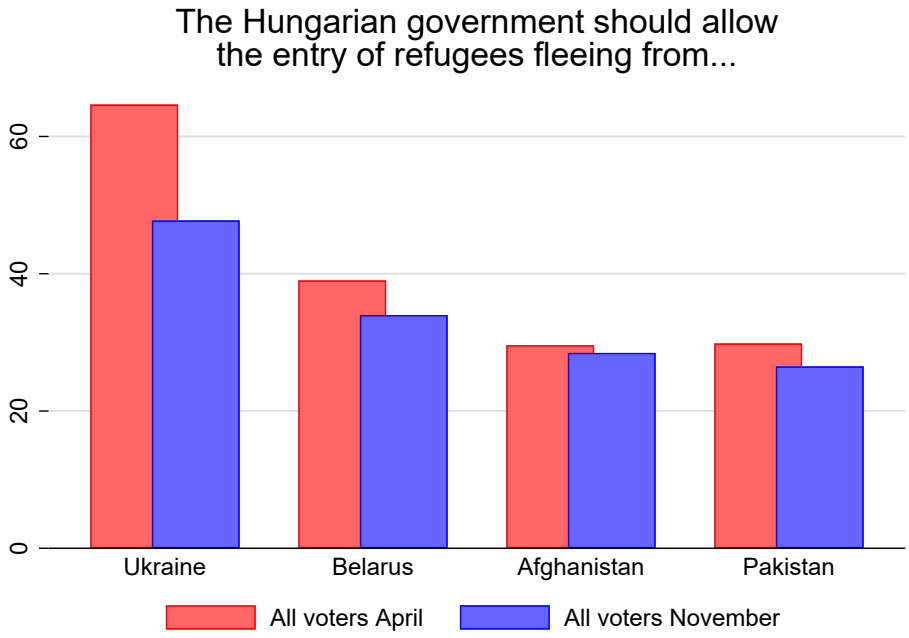

Figure A20: Public Opinion towards Refugees by Source Country, April and November 2022

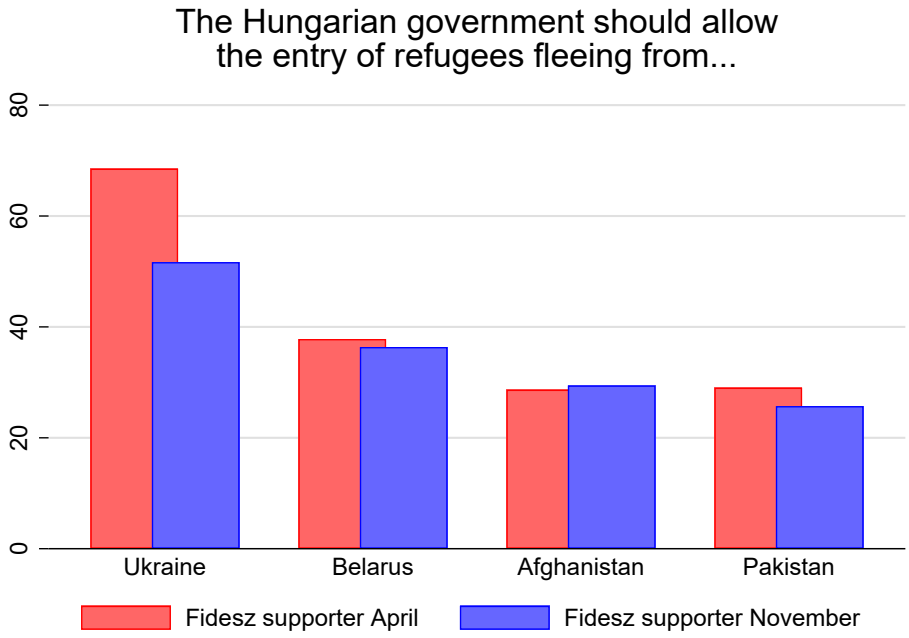

Figure A21: Public Opinion of Fidesz Supporters towards Refugees by Source Country, April and November 2022

	Source country							
	Ukraine		Belarus		Afghanistan		Pakistan	
Panel A: Socio-demographic controls								
Fidesz	6.8**	(2.10)	2.2	(0.79)	2.2	(0.76)	-1.6	(-0.62)
Panel B: Degree of religiosity included								
Fidesz	5.3	(1.62)	1.4	(0.50)	2.1	(0.70)	-3.5	(-1.32)
Very relig	10.7*	(1.78)	8.4*	(1.78)	1.3	(0.27)	13.7***	(2.68)
Somewhat relig	11.4***	(2.69)	8.2***	(2.73)	1.2	(0.33)	8.6***	(3.15)
Panel C: Religious service participation included								
Fidesz	5.7*	(1.74)	1.8	(0.65)	2.6	(0.89)	-3.5	(-1.27)
Freq serv part	13.5***	(2.60)	5.7	(1.27)	-2.1	(-0.46)	15.8***	(3.40)
Occ serv part	2.4	(0.63)	7.3**	(2.03)	-2.2	(-0.59)	8.4***	(2.98)

Notes: The table shows relative support of Fidesz voters and various religious groups for allowing in refugees fleeing from four source countries. Panel A shows the estimated coefficients with socio-demographic control variables only. Panels B-C present estimates with religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively. Graphical representation of the estimated Fidesz parameters are in Figure 7.

Table A12: OLS Estimation for Public Opinion towards Refugees by Source Country, November 2022

of these questions we ask: $\chi^2(3) = 4.1, p = 0.25$.[93] This finding buttresses our argument that race and values are indistinguishable from one another as explanations for Hungarian public opinion on refugees.

We now compare the two experimental groups (one with the *white European heritage* and the other one with the *common values with Hungarians* questions) based on their responses to the importance of refugees being Christian (asked of all respondents). We test whether the distributions of these responses are independent. Table A14 compares the distribution of responses to a question about the importance of refugees have a specific characteristic,

[93]The null hypothesis is that the distribution of the two responses are identical, thus, with a p-value of 0.25, we fail to reject this hypothesis.

where two options were assigned randomly to respondents: having the same values as Hungarians *versus* arriving from a country with white European heritage. The table supports our earlier findings and provides additional evidence that race, religion, and values are the manifestation of the same latent variable.

	White European	Same values	Total
Not important 2.58	1.71	2.14	
Somewhat important	19.35	22.26	20.84
Important	39.65	34.63	37.08
Very important	38.41	41.40	39.94
Observations	484	508	992

Notes: This table compares the distribution of responses to a question about the importance of refugees have a specific characteristic, where two options were assigned randomly to respondents: having the same values as Hungarians *versus* arriving from a country with white European heritage. Responses of "Don't know/refuse to answer" are excluded. The table shows the weighted distribution across the share of the responses.

Table A13: Experimental results comparing race and values in November 2022

Panel A: Christian and White Heritage

	Not	Some	Important	Very	Total
Not important	21.72	0.54	0.00	0.00	2.60
Somewhat important	28.79	51.37	7.56	0.00	19.07
Important	39.36	35.13	66.88	13.78	39.92
Very important	10.13	12.96	25.55	86.22	38.41
Observations	55	124	160	142	481
$\chi^2(9) = 373.1, p < 0.001$					

Panel B: Christian and Same Values

	Not	Some	Important	Very	Total
Not important	13.24	1.03	0.00	0.00	1.73
Somewhat important	49.48	53.00	7.52	0.00	21.95
Important	25.39	36.46	56.50	8.12	34.66
Very important	11.89	9.51	35.98	91.88	41.66
Observations	56	132	180	138	505
$\chi^2(9) = 356.3, p < 0.001$					

Notes: The panels compare the distribution of responses of the importance of refugees being Christian (column variable) with the importance of coming from a country with a white heritage or the same values as Hungarians (row variables). Responses of "Don't know/refuse to answer" are excluded. Columns of the table show the weighted distribution across the share of the responses.

Table A14: Race, values, and religion compared in November 2022

Figures A22 and A23 show the importance attributed to various characteristics of refugees by survey respondents' partisanship. In line with the finding that Hungarians turned to be less pro-immigrant by November, we see an increase in the scores across the various characteristics of immigrants. This indicates that in general, people think that more conditions shall apply to foreigners to stay in Hungary. Figures show that Fidesz voters have stronger preference than non-Fidesz voters for immigrants who are Christian. These results also hold in a multivariate context (Table A15).

Finally, Figure A24 shows survey respondents' views about the importance of refugee's ethnic background by respondents' party preferences, while Figure A25 shows changes in attitudes from April to November. Similar to our April results, Hungarians are very wel-

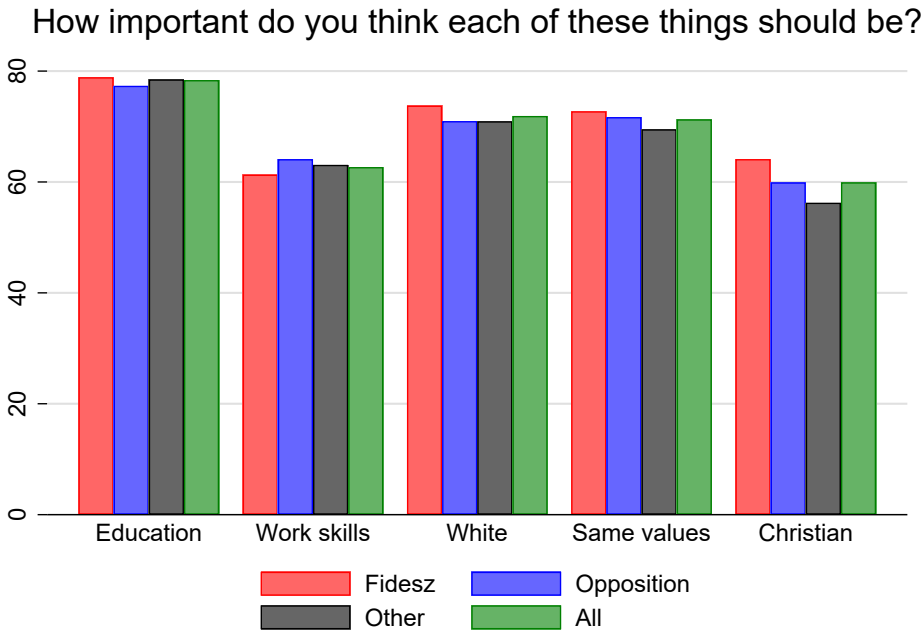

Figure A22: The Importance of Immigrant Characteristics and Various Skills by Party, November 2022

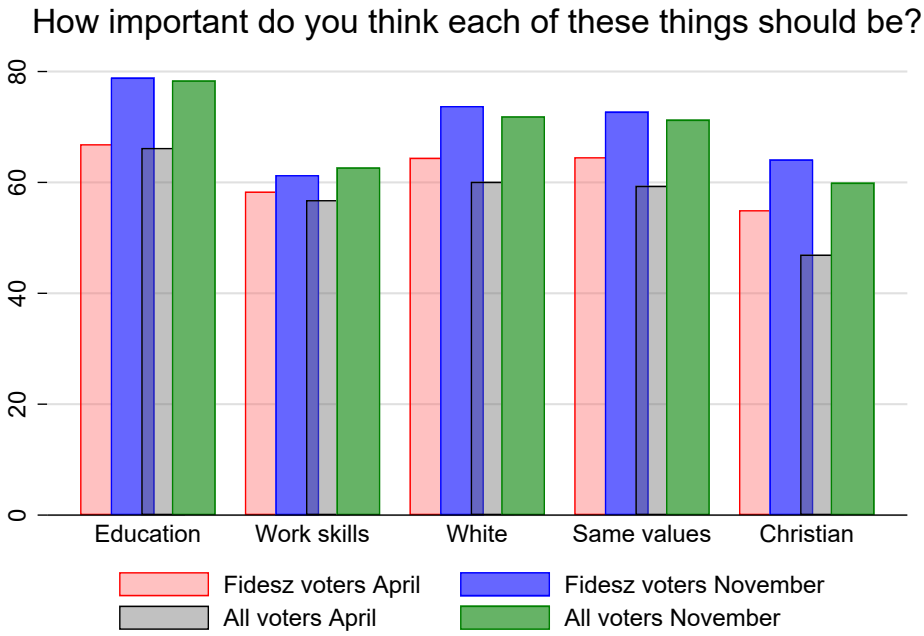

Figure A23: The Importance of Immigrant Characteristics and Various Skills by Party, April and November 2022

	Skills				Demographic characteristics					
	Education		Work skills		White		Same values		Christian	
Panel A: Socio-demographic controls only										
Fidesz	-1.5	(-0.74)	1.0	(0.51)	3.7	(1.27)	1.9	(0.63)	5.8**	(2.35)
Panel B: Degree of religiosity included										
Fidesz	-1.8	(-0.83)	0.9	(0.48)	3.4	(1.07)	1.2	(0.41)	3.8	(1.51)
Very relig	2.8	(0.64)	0.02	(0.01)	2.3	(0.39)	0.5	(0.09)	21.2***	(4.88)
Somewhat	2.4	(0.99)	2.0	(0.01)	2.6	(0.73)	6.1*	(1.81)	17.4***	(5.73)
Panel C: Religious service participation included										
Fidesz	-2.1	(-1.02)	1.2	(0.63)	3.7	(1.21)	2.1	(0.71)	4.9*	(1.96)
Freq serv	3.9	(1.31)	-3.2	(-1.15)	-2.3	(-0.55)	-2.3	(-0.47)	8.3**	(2.38)
Occ serv	-0.0	(-0.02)	-1.8	(-0.95)	-2.8	(-0.91)	0.0	(0.02)	9.4 ***	(3.47)

Notes: The table shows relative support of Fidesz voters and various religious groups for people arriving to have different skills, values, and demographic characteristics: have education, work skills, same values, come from a country with white European heritage or be Christian. Panel A shows the estimated coefficients when only socio-demographic control variables are included. Panels B-D present estimates when explanatory variables on religiosity are additionally included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table A15: OLS Estimation for the Importance of Different skills and Characteristics, November 2022

coming towards ethnic Hungarians and German immigrants. They are, however, rather opposed to Arabs. Again, these findings hold in a multivariate regression specification (Table A16).

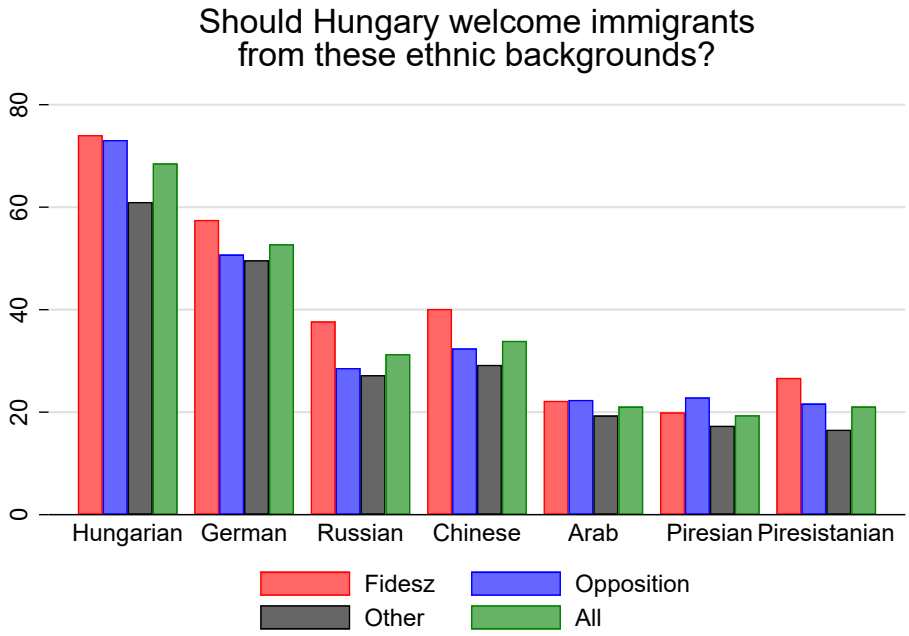

Figure A24: The Importance of Different Ethnic Background of Immigrants by Partisanship, November 2022

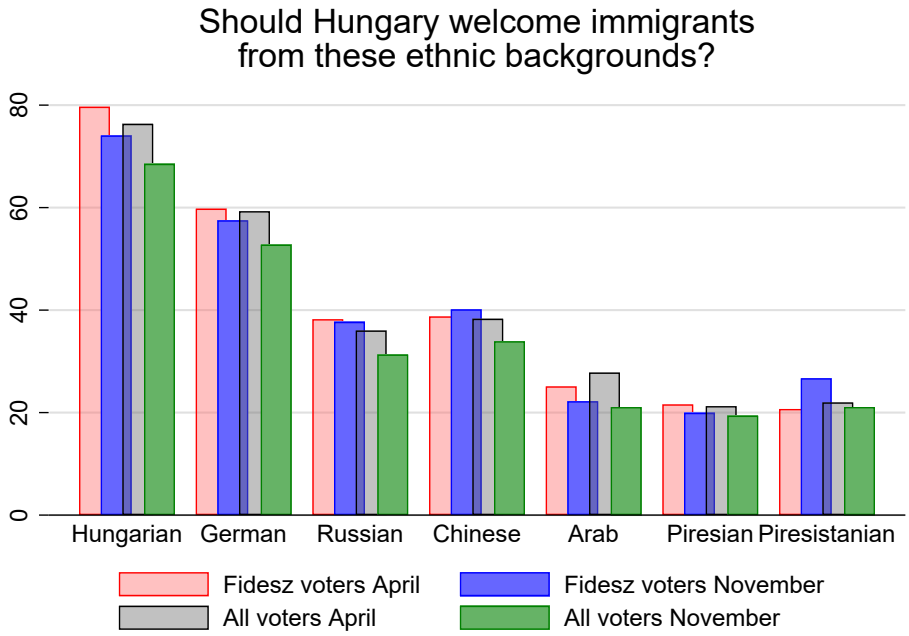

Figure A25: The Importance of Different Ethnic Background of Immigrants by Partisanship, April versus November 2022

	Ethnicity													
	Hungarian		German		Russian		Chinese		Arab		Piresian		Piresistani	
Panel A: Socio-demographic controls only														
Fidesz	8.6***	(3.95)	7.1***	(2.98)	9.8***	(4.18)	9.7***	(4.16)	1.6	(0.73)	0.6	(0.16)	8.7**	(1.99)
Panel B: Degree of religiosity included														
Fidesz	6.8***	(3.17)	6.0**	(2.50)	8.6***	(3.58)	8.3***	(3.53)	1.3	(0.59)	-1.3	(-0.36)	6.7	(1.45)
Veryrel	15.8***	(4.73)	13.1***	(3.38)	15.1***	(3.31)	17.9***	(4.01)	3.9	(0.91)	15.0***	(2.58)	20.3**	(2.45)
Somewhat	13.6***	(5.05)	4.2	(1.45)	9.8***	(3.63)	12.0***	(4.54)	1.0	(0.39)	11.9***	(3.47)	10.1***	(2.61)
Panel C: Religious service participation included														
Fidesz	7.8***	(3.58)	6.4***	(2.65)	8.0***	(3.38)	8.1***	(3.42)	0.2	(0.09)	-2.4	(-0.69)	7.2	(1.55)
Freqserv	9.1***	(2.63)	4.6	(1.16)	16.4***	(4.42)	14.6***	(4.20)	9.2**	(2.34)	21.3***	(3.46)	11.9	(1.56)
Occserv	10.4***	(4.40)	-1.0	(-0.39)	7.9***	(3.24)	6.4***	(2.61)	-0.8	(-0.36)	7.6**	(2.25)	4.2	(1.12)

Notes: The table shows relative support of Fidesz voters and various religious groups for immigrants with different ethnicities: Hungarians, Germans, Russians, Chinese, Arabic, Piresians and Piresistani. Panel A shows the estimated coefficients with sociodemographic control variables. Panels B-C present show estimated results with variables on religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table A16: OLS Estimation for the Relative Support for Immigrants with Different Ethnicities, November 2022

O Appendix: Selected Speeches

O.1 The Political Discourse on Ukraine's EU Membership

Prime Minister Viktor Orbán supported the accession of Ukraine to the European Union but mainly due to economic considerations, as emphasised by Orbán himself on the 25th of November, 2016 at the Hungarian-Ukrainian Business Forum: *"I am convinced that Ukrainian-Hungarian friendship will flourish in the longer run, because we support Ukraine's strategic goals, as we have publicly declared. We respect Ukraine's territorial sovereignty and as long as Ukraine stands up for this, we too shall stand up for it... we are a country which is not afraid to say out loud that the goal is Ukraine's accession to the European Union. Today this seems to be impossible ... as the European Union is struggling with its own problems, and has lost its ambition, desire, ability and passion towards the process of enlargement. Nevertheless ... we strongly support the accession of Ukraine to the European Union in the medium term. The European Union will lag behind in the global economic competition unless it has access to new resources. And in fact, Ukraine is not a problem, but a resource, which can also be a resource for the European Union.*[94]

O.2 On the pro-Russian Politics

On the 21st of December 2021, in a rare press conferences, the Prime Minister was asked about the conflict between Ukraine and Russia and in light of this conflict whether Hungary's pro-Russian can cause tension in Europe.

Viktor Orbán claimed that *"we've always sought to keep our policy on Russia separate from that on Ukraine ... and we'll continue to do so: we support Ukraine's independence, but we're not at all happy about the sanctions against Russia. We believe that Ukraine has the right to its own national existence, while Hungary has the right to maintain reasonable relations with Russia. It's not always easy to coordinate these two, but so far we've succeeded. To do so, it is tremendously*

[94] Available at https://miniszterelnok.hu/orban-viktor-beszede-a-magyar-ukran-gazdasagi-forumon/

helpful that I am able to maintain personal relations with Russian leaders. Somewhere in Russia at the beginning of next year, there will be a Russia-Hungary summit between President Putin and myself."[95]

[95] Available on the website of the *Cabinet Office of the Prime Minister* at https://miniszterelnok.hu/orban-viktor-valaszai-a-felmerult-ujsagiroi-kerdesekre-2/.

P Appendix: Trends in Hungarian Public Opinion Over Time Using ESS Data

Figure A26 shows the changing tendency in respondents' migration attitude over time that are broken down by respondents' party affiliations. While survey respondents were almost neutral towards immigrants in the 2010 and 2012 waves with an average score of 43, we see a sharp uptake in anti-immigrant sentiment after the first refugee crisis, as the average score declines to 35 in 2016. This is followed by a gradual increase in support for immigrants showing that Hungarians became more welcoming towards immigrants following Russia's invasion of Ukraine. This trend is driven by Fidesz voters. Whereas Fidesz supporters were more hostile towards immigrants than non-Fidesz voters in 2016, by April 2022, Fidesz voters were just as welcoming towards foreigners as the opposition. In line with the previous findings on TARKI data, we also see some increase in anti-immigrant attitudes by November suggesting that pro-immigrant attitudes cool down by time.

To investigate the changing attitude of Hungarian voters towards migrants over time, we merged our two survey waves from 2022 with six ESS rounds (between 2010-2020) and produced a pooled cross-section dataset. We estimate a regression model—similar to the one in Equation 1—with survey respondents' attitude towards immigrants as the dependent variable, but now using previous rounds of ESS data merged with our two waves from 2022. We estimate the following equation:

$$y_i = \alpha + \beta_1 Fidesz_i + \sum_{t=2}^{8} \beta_t Fidesz_i \times Round\_t_i + \sum_{t=2}^{8} \gamma_t Round\_t_i + X_i'\delta + \epsilon_i, \qquad \text{(A1)}$$

where y_i is a scale variable capturing respondent i's opinion on whether Hungary is a

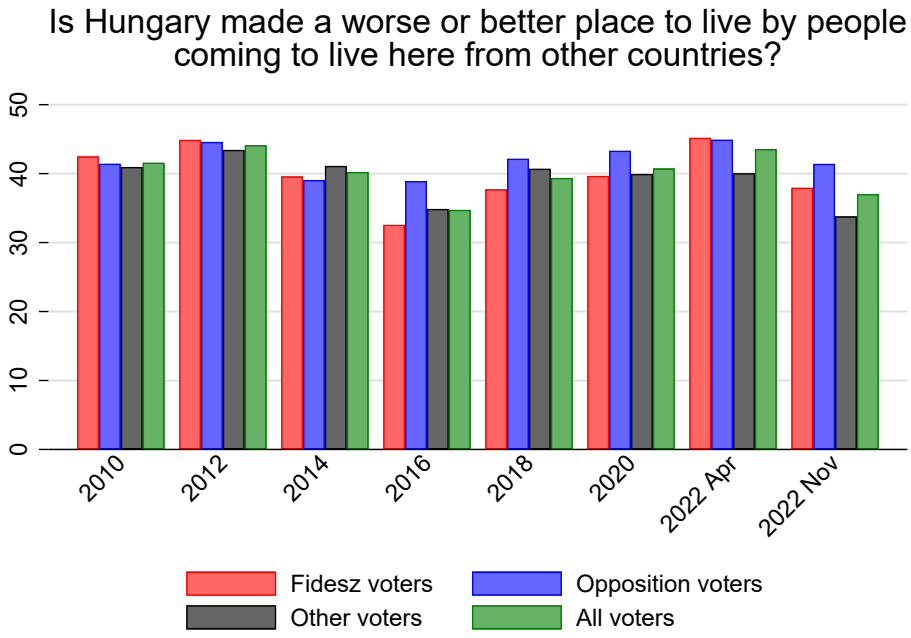

Figure A26: Changing Tendency in Respondents' Attitudes Towards Immigrants over Time and by Party (2010–2022)

worse or better place by people coming to live in Hungary from other countries.[96] We include an interaction term between Fidesz voters dummy and the round dummies to allow the effect of partisanship on migration attitudes to differ over time, while we also allow round dummies to capture any time-specific shocks to public opinion.

Column 3 in Table A17—similar to the descriptive evidence on Figure A26—shows that Fidesz voters had similar attitudes towards immigrants than non-Fidesz voters in 2010-2014, while they were particularly opposed to admitting refugees to Hungary between 2016 and 2020. By 2022, however, they again turn to be just as welcoming (if not even more welcoming) than non-Fidesz voters. We again find that the level of education and religious service attendance is strongly correlated with respondents' attitudes towards immigrants: being more educated and attending religious services more frequently both

[96]The running index t is referring to the ESS rounds: t=1 for the round in 2010, t=2 for the round in 2012, ..., and t=7 for our November survey in 2022. The round in 2010 is the omitted category.

	Worse/better place		Worse/better place	
Fidesz	-0.53	(-1.23)	..	..
Fidesz × (Round 2010)	..	..	1.00	(0.85)
Fidesz × (Round 2012)	..	..	1.05	(0.98)
Fidesz × (Round 2014)	..	..	-1.39	(-1.15)
Fidesz × (Round 2016)	..	..	-2.88**	(-2.32)
Fidesz × (Round 2018)	..	..	-2.63**	(-2.31)
Fidesz × (Round 2020)	..	..	-1.64	(-1.57)
Fidesz × (Round 2022A)	..	..	2.15	(1.57)
Fidesz × (Round 2022N)	..	..	1.18	(0.80)
Round 2012	2.85***	(3.76)	2.88***	(3.04)
Round 2014	-1.48*	(-1.87)	-0.75	(-0.78)
Round 2016	-7.10***	(-8.57)	-5.73***	(-5.47)
Round 2018	-2.77***	(-3.48)	-1.57	(-1.58)
Round 2020	-1.00	(-1.33)	-0.12	(-0.13)
Round 2022A	1.96**	(2.16)	1.23	(1.00)
Round 2022N	-4.66***	(-4.92)	-4.78***	(-3.91)
Freq serv part	4.20***	(6.75)	4.12***	(6.63)
Occ serv part	3.34***	(7.45)	3.31***	(7.38)
Secondary school	4.05***	(8.80)	4.02***	(8.74)
College / University	7.89***	(13.37)	7.87***	(13.34)
Individual controls	Yes		Yes	
Constant	41.00***	(16.14)	40.58***	(15.70)
N	11417		11417	

Robust t statistics in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A17: Pooled OLS Estimation Results

make respondents more welcoming towards immigrants.

Q Appendix: Experimental Approach I. – Refugees Fleeing from Different Countries

Questions in English	Questions in Hungarian
To what extent do you agree or disagree with the following statement? The Hungarian government should allow the entry of refugees fleeing *Afghanistan/Pakistan*	Ön milyen mértékben ért egyet a következő állítással? A magyar kormánynak be kellene engednie azokat a menekülteket, akik *Afganisztánból/Pakisztánból* menekülnek?
To what extent do you agree or disagree with the following statement? The Hungarian government should allow the entry of refugees fleeing *Ukraine/Belarus*	Ön milyen mértékben ért egyet a következő állítással? A magyar kormánynak be kellene engednie azokat a menekülteket, akik *Ukrajnából/Fehéroroszországból* menekülnek?

Table A18: Experimental Question Wording I.

	Afghanistan *versus* Pakistan			Ukraine *versus* Belarus		
	Afghanistan	Pakistan	t-stat.	Ukraine	Belarus	t-stat.
Fidesz supporter	46.24%	44.70%	0.42	42.14%	49.01%	-1.90
Opposition supporter	24.81%	23.12%	0.54	25.60%	22.26%	1.07
Primary education	51.48%	50.48%	0.27	50.03%	52.00%	-0.54
Secondary education	32.07%	30.57%	0.45	31.74%	30.90%	0.25
Higher education	16.45%	18.95%	-0.89	18.23%	17.10%	0.40
Female	53.72%	53.00%	0.19	52.60%	54.17%	-0.43
Age	48.42	48.49	-0.05	48.81	48.08	0.54
Married	50.20%	58.28%	-2.22	55.71%	52.56%	0.86
Divorced	14.26%	10.31%	1.80	11.85%	12.80%	-0.43
Widowed	15.02%	12.93%	0.91	13.64%	14.36%	-0.31
Single	20.52%	18.48%	0.63	18.80%	20.28%	-0.46
Roma	5.01%	3.26%	1.04	2.84%	5.53%	-1.58
Student	2.63%	3.39%	-0.55	2.64%	3.39%	-0.54
Unemployed	2.80%	2.08%	0.59	2.13%	2.78%	-0.53
Retired	24.29%	25.64%	-0.46	24.51%	25.43%	-0.32
Inactive	3.46%	3.93%	-0.34	3.16%	4.25%	-0.78
Self-employed	7.08%	5.98%	0.56	7.11%	5.93%	0.60

Table A19: Randomization – Options Afghanistan *versus* Pakistan and Ukraine *versus* Belarus

R Appendix: Salience of Ukraine and Afghanistan and the Perception of Conflicts – Google Search Data Analysis

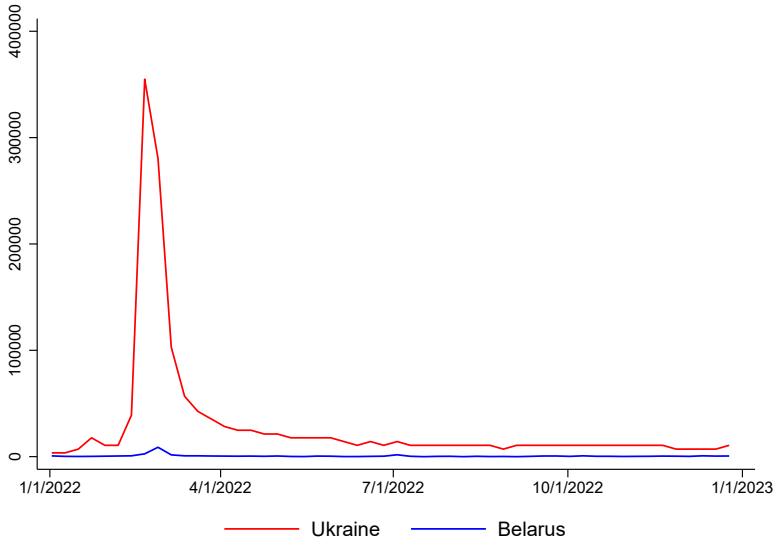

Figure A27: Number of Searches on the Terms Ukraine and Belarus over Time in 2022 – Google Searches in Hungary (Weekly Data)

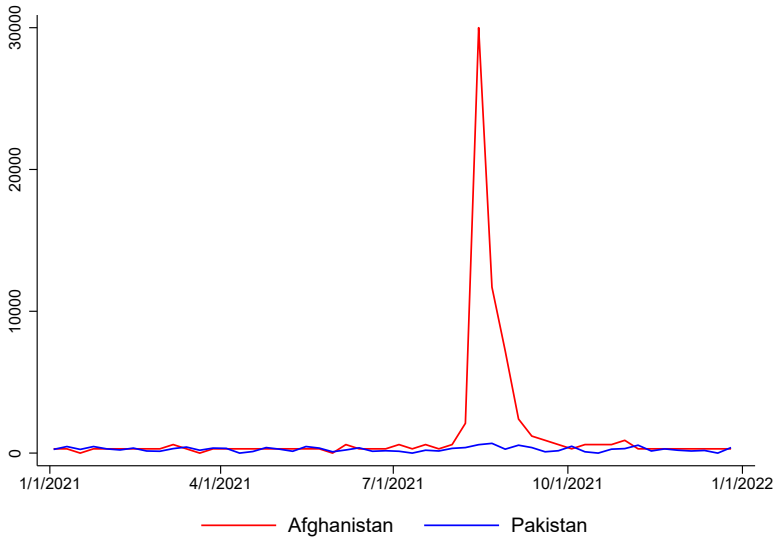

Figure A28: Number of Searches on the Terms Afghanistan and Pakistan over Time in 2021 – Google Searches in Hungary (Weekly Data)

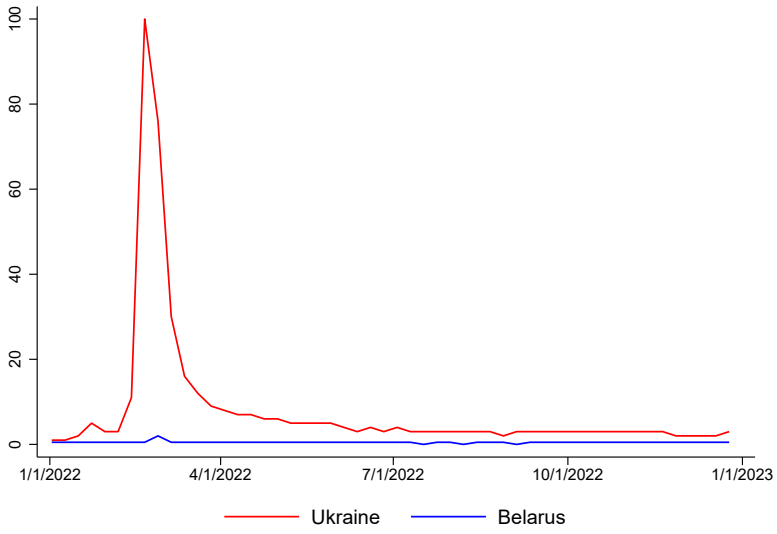

Figure A29: Popularity of the Terms Ukraine and Belarus over Time in 2022 – Google Searches in Hungary (Weekly Data)

Note: The graph shows the popularity of the terms Ukraine and Belarus over time in 2022. Data is normalized and presented on a scale from 0-100, where each point on the graph is divided by the highest point, or by 100. A line trending downward does not necessarily means that the total number of searches is decreasing, but that a search term's relative popularity is decreasing.

	Afghanistan		Pakistan		Ukraine	Belarus
	2021	2022	2021	2022	2022	2022
1.	News	War	India	India	Russia	Ukraine
2.	Taliban	Iraq	Afghanistan	Language	War	Russia
3.	War	Flag	Iran	Capital	News	War
4.	Kabul	Capital	Capital	Population	Map	Hungary
5.	Map	Iran	Uzbekistan	Floods	Latest News	Map

Notes: This table shows terms that were most frequently searched with the countries of our interest in the same search session on Google in Hungary in 2021 and in 2022.

Table A20: The Most Frequently Searched Terms with the Words Afghanistan, Pakistan, Ukraine and Belarus – Google Search Analysis in Hungary in 2021 and 2022

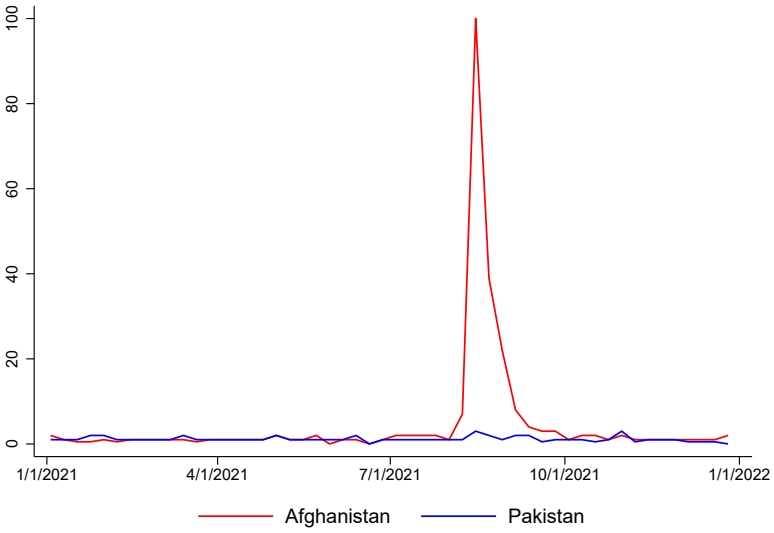

Figure A30: Popularity of the Terms Afghanistan and Pakistan over Time in 2021 – Google Searches in Hungary (Weekly Data)

Note: The graph shows the popularity of the terms Afghanistan and Pakistan over time in 2021. Data is normalized and presented on a scale from 0-100, where each point on the graph is divided by the highest point, or by 100. A line trending downward does not necessarily means that the total number of searches is decreasing, but that a search term's relative popularity is decreasing.

S Appendix: Regression Results – Public Opinion towards Refugees by Source Country, 2022

We model the relationships among respondents' socio-demographic characteristics, partisanship, religious identity and attitudes towards migrants using the following equation:

$$allow_i = \alpha + \beta Fidesz_i + \gamma relig_i + X_i'\delta + \epsilon_i, \tag{A2}$$

where $allow_i$ is respondent i's opinion on whether Hungary should allow the entry of refugees on a 0-100 scale, $Fidesz_i$ is a dummy variable for being a Fidesz voter, $relig_i$ is the religiosity indicator, and the vector X_i' contains socio-demographic characteristics such as age, education, settlement type, marital status, type of activity. We measure religiosity with three different indicators: self-declared degree of religiosity, frequency of participation in religious services, and self-declared religious denomination.

Table A21 reveals that Fidesz voters (relative to non-Fidesz voters) are more open – by 3.1-4.5 points on a 100-point scale – for refugees fleeing from Ukraine, while Fidesz voters' attitude towards refugees from the other three source countries are always negative (although insignificant). This result implies that in 2022, Fidesz voters were more welcoming towards Ukrainian refugees only. Another important finding is that religious voters tend to support refugees from Ukraine, but oppose refugees from Afghanistan or Pakistan, and this pattern is robust to different measurements of religiosity.

	Source country							
	Ukraine		Belarus		Afghanistan		Pakistan	
Panel A: Socio-demographic controls								
Fidesz	4.4*	(1.75)	-1.5	(-0.48)	-3.1	(-1.02)	-1.7	(-0.65)
Panel B: Degree of religiosity included								
Fidesz	3.1	(1.25)	-1.5	(-0.49)	-2.5	(-0.82)	-1.5	(-0.54)
Very relig	6.9	(1.54)	1.4	(0.23)	-4.5	(-0.75)	-4.1	(-0.86)
Somewhat relig	11.5***	(3.64)	-0.8	(-0.20)	-0.6	(-0.17)	2.1	(0.72)
Panel C: Religious service participation included								
Fidesz	4.5*	(1.79)	-0.8	(-0.24)	-1.9	(-0.64)	-0.1	(-0.04)
Freq serv part	1.2	(0.29)	-3.4	(-0.66)	-6.9	(-1.42)	-9.1**	(-2.30)
Occ serv part	7.5***	(2.66)	-1.3	(-0.32)	2.4	(0.73)	-0.8	(-0.27)
Panel D: Religious denomination included								
Fidesz	4.0	(1.55)	-2.3	(-0.73)	-3.0	(-1.01)	-2.7	(-1.02)
Catholic	6.5*	(1.74)	4.9	(1.00)	-9.9**	(-2.24)	6.1*	(1.77)
Protestant	-0.1	(-0.02)	-2.3	(-0.44)	-14.9***	(-3.37)	0.9	(0.27)

Notes: The table shows relative support of Fidesz voters and various religious groups for allowing in refugees fleeing from four source countries. Panel A shows the estimated coefficients with socio-demographic control variables only. Panels B-D present estimates with religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively. Graphical representation of the estimated Fidesz parameters are in Figure 7.

Table A21: OLS estimation results for different source countries, April 2022

T Appendix: Experimental Approach II. – Culture

Questions in English	Questions in Hungarian
How important do you think each of these things should be in deciding whether someone born and living outside Hungary should be able to come and live here?	Ön mit gondol: a külföldön született és ott élő emberek befogadásakor az alábbi tényezők mennyire fontosak?
How important should it be for them to . . .	Mennyire fontos, hogy . . .
. . . have good educational qualifications?	. . . iskolázottak legyenek?
. . . be Christian?	. . . keresztények legyenek?
. . . be useful workforce that Hungary needs?	. . . az ország számára hasznos munkaerőt jelentsenek?
. . . come from a country with a similar cultural background *[one with white European heritage]/ [where they have the same values as Hungarians do]*	... hasonló kulturális hátterű országból érkezzenek, *[ami a fehér, európai kulturális örökség része?] [ahol a magyarokéhoz hasonló értékeket követnek?]*

Table A22: Experimental Question Wording II.

	with white European heritage	with the same values as Hungarians do	t-stat.
Fidesz supporter	44.86%	46.03%	-0.32
Opposition supporter	25.41%	22.70%	0.87
Primary education	50.28%	51.62%	-0.37
Secondary education	32.51%	30.29%	0.66
Higher education	17.22%	18.09%	-0.31
Female	57.01%	50.14%	1.86
Age	47.96	48.90	-0.70
Married	51.78%	56.30%	-1.24
Divorced	13.39%	11.36%	0.92
Widowed	14.45%	13.58%	0.38
Single	20.37%	18.76%	0.50
Roma	4.19%	4.11%	0.05
Student	2.63%	3.34%	-0.52
Unemployed	3.27%	1.71%	1.24
Retired	25.87%	24.14%	0.60
Inactive	4.47%	3.00%	1.04
Self-employed	7.79%	5.44%	1.19

Table A23: Randomization – Options "white European heritage" versus "the same values as Hungarians do"

U Appendix: Distribution of Responses of the Importance of Refugee Characteristics

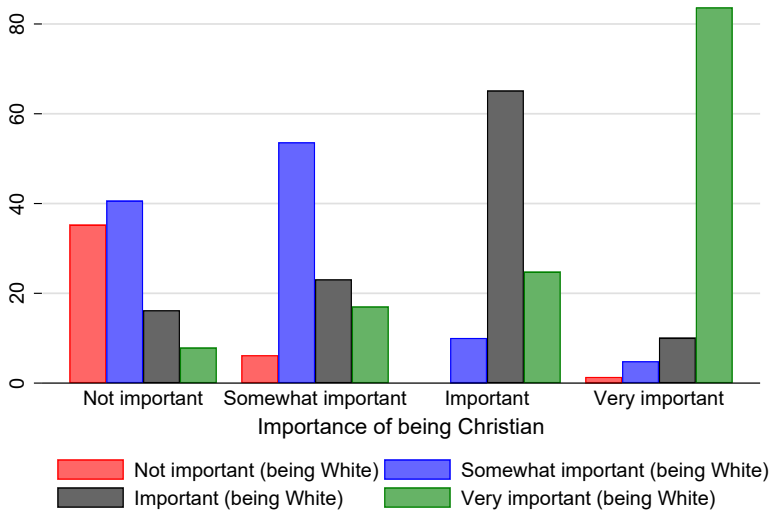

Figure A31: Distribution of Survey Responses of the Importance of Refugees being White across the Importance of being Christian

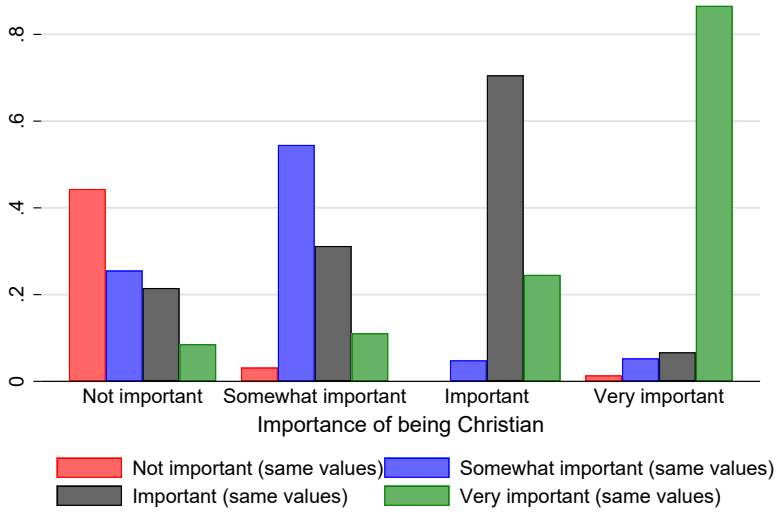

Figure A32: Distribution of Survey Responses of the Importance of Refugees having the Same Values across the Importance of being Christian

V Appendix: Regression Results – The Importance of Immigrant Characteristics and Various Skills, 2022

We now estimate the effect of partisanship and other individual-level characteristics on the importance of various skills, values, and demographic characteristics. For the five skills and characteristics, we estimate – for each of the five characteristics separately – the following equation:

$$importance_i = \alpha + \beta Fidesz_i + \gamma relig_i + \delta X_i + \epsilon_i, \tag{A3}$$

where $importance_i$ is respondent i's opinion about the importance of the given characteristic on a 0-100 scale, and all other explanatory variables are the same as in the previous specification.

Table A24 contains the results. Among Fidesz voters, being Christian is much more important determinant of support for accepting immigrants than for non-Fidesz voters, even if we control for individual-level religiosity: our estimates indicate that their subjective importance is 11-14 points higher, on a 100-point scale, than for non-Fidesz voters. Fidesz voters find almost equally important that immigrants should come from a country with white European heritage or should have same values as Hungarians do: their average score of importance for these characteristics is 7-11 points larger than of non-Fidesz voters, and is highly statistically significant in all specifications. On the other hand, Fidesz voters' evaluation of the importance that migrants should be well-educated and have the necessary work skills is similar to the evaluation of the rest of the society. We interpret these results as further evidence that the race, religion, and values of the refugees shape Fidesz voters' opinion about refugees in 2022.

	Skills				Demographic characteristics					
	Education		Work skills		White		Same values		Christian	
Panel A: Socio-demographic controls only										
Fidesz	3.6*	(1.78)	0.6	(0.28)	9.6***	(2.83)	8.3***	(2.64)	14.4***	(5.96)
Panel B: Degree of religiosity included										
Fidesz	4.0*	(1.86)	-0.3	(-0.12)	9.6***	(2.64)	7.5**	(2.24)	11.6***	(4.68)
Very relig	-1.9	(-0.50)	7.9**	(2.02)	0.3	(0.05)	2.7	(0.50)	18.1***	(4.62)
Somewhat	-3.3	(-1.35)	-3.5	(-1.35)	3.2	(0.78)	4.8	(1.32)	11.1***	(3.94)
Panel C: Religious service participation included										
Fidesz	3.2	(1.47)	0.6	(0.26)	8.8**	(2.41)	7.1**	(2.19)	11.2***	(4.52)
Freq serv	2.9	(0.84)	0.1	(0.04)	4.5	(0.81)	7.3	(1.59)	19.0***	(5.20)
Occ serv	-4.7*	(-1.93)	-5.7**	(-2.35)	-1.0	(-0.23)	-3.5	(-1.05)	5.5**	(2.04)
Panel D: Religious denomination included										
Fidesz	4.2**	(1.98)	1.2	(0.57)	10.7***	(3.11)	8.1**	(2.48)	13.2***	(5.29)
Catholic	-4.9*	(-1.78)	-5.7*	(-1.94)	-6.9	(-1.55)	-1.3	(-0.28)	8.9***	(2.73)
Protestant	-3.9	(-1.23)	-6.7**	(-2.10)	-4.6	(-0.86)	-0.7	(-0.15)	9.5***	(2.63)

Notes: The table shows relative support of Fidesz voters and various religious groups for people arriving to have different skills and demographic characteristic: have education, work skills, same values, come from a country with white European heritage or be Christian. The columns show the estimates for the different skills or characteristics. Panel A shows the estimated coefficients when only socio-demographic control variables are included. Panels B-D present estimates when explanatory variables on religiosity are additionally included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table A24: OLS estimation results for the importance of different skills and characteristics, April 2022

W Appendix: Experimental Approach III. – Ethnicity

Questions in English	Questions in Hungarian
Regardless of their country of origin, immigrants may come from many different ethnic backgrounds. Should Hungary welcome immigrants from these ethnic backgrounds, so long as they are entering the country legally and have no record of criminal activity?	Függetlenül attól, hogy melyik országból érkeznek, a bevándorlók különböző nemzetiségűek lehetnek. Ha ezek a bevándorlók büntetlen előéletűek és legális úton érkeznek az országba, akkor Ön szerint Magyarországnak be kellene-e fogadnia . . .
Hungarians beyond the borders	. . . a határon túli magyarokat?
Germans	. . . a németeket?
Arabs	. . . az arabokat?
Russians	. . . az oroszokat?
Chinese	. . . a kínaiakat?
Piresian	. . . *a pirézeket?*
Piresistani	. . . *a pirézisztániakat?*

Table A25: Experimental Question Wording III.

	Piresistani	Piresian	t-stat.
Fidesz supporter	43.53%	47.36%	-1.06
Opposition supporter	24.86%	23.12%	0.55
Primary education	52.07%	49.94%	0.58
Secondary education	29.70%	32.90%	-0.95
Higher education	18.22%	17.15%	0.38
Female	52.74%	53.97%	-0.33
Age	48.54	48.38	0.12
Married	55.54%	52.86%	0.74
Divorced	12.84%	11.81%	0.47
Widowed	12.99%	14.95%	-0.85
Single	18.62%	20.38%	-0.55
Roma	5.07%	3.26%	1.07
Student	3.15%	2.86%	0.21
Unemployed	2.80%	2.10%	0.57
Retired	25.02%	24.89%	0.04
Inactive	3.09%	4.27%	-0.85
Self-employed	6.51%	6.56%	-0.03

Table A26: Randomization – Options "Piresistani" *versus* "Piresian"

X Appendix: Regression Results – The Importance of Immigrants' Ethnicity, 2022

This part of our empirical analysis examines whether immigrants' ethnic background determines Hungarians' attitude. We estimated multivariate regressions—separately for each ethnicity—with the following specification:

$$ethnicity_i = \alpha + \beta Fidesz_i + \gamma relig_i + \delta X_i + \epsilon_i, \tag{A4}$$

where $ethnicity_i$ is respondent i's opinion about welcoming a migrant of a specific ethnicity on a 0-100 scale, and all explanatory variables are the same as in the previous specifications.

	Ethnicity													
	Hungarian		German		Russian		Chinese		Arab		Piresian		Piresistani	
Panel A: Socio-demographic controls only														
Fidesz	6.0***	(3.63)	1.1	(0.47)	3.8*	(1.69)	0.5	(0.21)	-5.4**	(-2.49)	1.0	(0.31)	-3.5	(-1.00)
Panel B: Degree of religiosity included														
Fidesz	5.0***	(2.95)	1.9	(0.82)	4.7**	(2.04)	0.9	(0.37)	-4.1*	(-1.88)	2.2	(0.72)	-3.9	(-1.07)
Veryrel	6.4*	(1.91)	-6.8	(-1.63)	-7.6*	(-1.86)	-5.2	(-1.31)	-9.4***	(-2.64)	-8.7*	(-1.68)	2.5	(0.41)
Somewhat	3.9*	(1.85)	-1.1	(-0.43)	-0.3	(-0.12)	2.1	(0.71)	-2.3	(-0.89)	-4.2	(-1.12)	6.0*	(1.70)
Panel C: Religious service participation included														
Fidesz	5.2***	(3.07)	1.9	(0.81)	4.6*	(1.94)	1.6	(0.63)	-4.3*	(-1.87)	1.8	(0.56)	-3.9	(-1.04)
Freqserv	4.4	(1.61)	-5.6	(-1.58)	-4.3	(-1.25)	-6.4*	(-1.85)	-6.7**	(-2.15)	-4.6	(-1.04)	3.3	(0.60)
Occserv	3.4*	(1.79)	-0.1	(-0.06)	-2.0	(-0.83)	-1.4	(-0.54)	-2.8	(-1.24)	-3.3	(-0.95)	4.8	(1.45)
Panel D: Religious denomination included														
Fidesz	5.7***	(3.40)	1.3	(0.55)	2.2	(0.96)	-0.7	(-0.28)	-5.3**	(-2.39)	0.3	(0.09)	-4.2	(-1.20)
Catholic	4.5**	(2.04)	1.7	(0.57)	10.3***	(3.32)	7.9**	(2.40)	-0.2	(-0.05)	3.9	(0.86)	6.9	(1.52)
Prot	-1.7	(-0.63)	-4.0	(-1.13)	-3.1	(-0.96)	-6.5*	(-1.85)	-8.3***	(-2.68)	-7.0	(-1.61)	6.0	(1.29)

Notes: The table shows relative support of Fidesz voters and various religious groups for immigrants with different ethnicities: Hungarians, Germans, Russians, Chinese, Arabic, Piresians and Piresistani. Panel A shows the estimated coefficients with socio-demographic control variables. Panels B-D present show estimated results with variables on religiosity included. The coefficients of Fidesz voters represent extra support, relative to non-Fidesz voters, on a 0-100 scale. The coefficients of various religious groups show extra support, relative to non-religious voters, on a 0-100 scale. Robust t statistics are reported in parentheses. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Table A27: OLS estimation results for the relative support for different ethnicities, April 2022

Table A27 provides additional evidence that Fidesz voters are especially welcoming ethnic Hungarian immigrants, while the estimated parameters of the Fidesz voters are insignificant for German, Chinese, Piresian and Piresistani immigrants, and negative for Arabs. This is another piece of evidence that the opinions of Fidesz voters—whose opinion influences the overall sentiment of Hungarians towards refugees to a large degree—are particularly sensitive to the demographic characteristics of immigrants.

Y Appendix: Socio-demographic Characteristics of Refugees

Year	Accepted	Males	Females	% Male
2013	360	285	75	72.9%
2014	510	405	105	79.2%
2015	425	350	75	82.4%
2016	430	330	105	76.7%
2017	1290	750	540	58.1%
2018	365	215	155	58.9%
2019	60	40	20	66.7%
2020	130	65	65	50.0%
2021	40	20	20	50.0%

Source: Eurostat data on first instance decisions on applications

Table A28: Gender Distribution of Immigrants with Positive Decision, 2013–2021

Table A28 shows the gender distribution of asylum seekers who received positive decisions (and thus, it provides a good estimate of the gender composition of refugees staying in Hungary).[97] While the share of male refugees staying in Hungary was higher between 2013 and 2016 than the share of female refugees, in absolute term, the number of male refugees is very small ruling out the concern that our results are driven by the opinion of Hungarians who have personally encountered *male* refugees during the first refugee crisis.

Tables A29 and A30 show the distribution of refugees by age categories and citizenship. Here, we focus on 2017 with its relatively high number of positive decisions when 1290 asylum seekers received a refugee status (or any other status following a positive decision). Two important conclusions can be drawn from these tables. First, Table A29 reveals that the majority of asylum seekers who received a positive decision were children under the age of 18. Second, while Table A30 shows that in 2017, most of the accepted refugees were from countries with different backgrounds (e.g.: 90% of all refugees came

[97]The table shows the gender composition of those who received positive decisions of *any* kind, including refugee status, subsidiary protection, humanitarian protection/tolerated status.

from either Afghanistan, Syria or Iraq), the low number of accepted people once again provides evidence that it is very unlikely that many of our survey respondents had personal encounters with a refugee, let alone had daily contact with them.

Age cohort	Accepted	Males	Females	% Male
Less than 18 years	645	385	260	59.7%
18-34 years	430	240	195	55.2%
35-64 years	205	120	85	58.5%
More than 65 years	10	5	0	100.0%
Total	1290	750	540	58.1%
% 0-17 years	50.0%	51.3%	48.1%	
% 18-34 years	33.3%	32.0%	36.1%	
% 35-64 years	15.9%	16.0%	15.7%	

Source: Eurostat data on first instance decisions on applications

Table A29: Distribution of Immigrants with Positive Decision by Age and Gender, 2017

Citizenship	Accepted	Males	Females	% Male
Afghanistan	580	335	245	57.8%
Syria	385	230	155	59.7%
Iraq	190	105	85	55.3%
Iran	35	25	15	62.5%
Unknown	25	10	10	50.0%
Pakistan	10	10	0	100%
Other	65	35	30	53.8%
Total	1290	750	540	58.1%
% Afghanistan	45.0%	44.7%	45.4%	
% Syria	29.8%	30.7%	28.7%	
% Iraq	14.7%	14.0%	15.7%	

Source: Eurostat data on first instance decisions on applications

Table A30: Distribution of Immigrants with Positive Decision by Gender and Citizenship, 2017

We now turn to the descriptive analysis of the gender composition of refugees during the second refugee crisis. Table A31 shows the gender and age distribution of Ukrainian refugees staying in Hungary with a temporary protection status (between February 24 and December 31, 2022). While the share of accepted Ukrainian children is similar to the

share of accepted children refugees during the first refugee crisis, 66% of the Ukrainian immigrants with TP status are female. This ratio is even higher among the adult cohort, 82.5% of the Ukrainian adults with TP status are women. Nonetheless, results of our experimental design in Section 5.3 clearly show that Hungarians are more welcoming of Ukrainian refugees in general and this is not exclusively driven by their assumption that Ukrainian refugees are mostly women and children, whereas Afghan refugees are young men.

Age cohort	Accepted	Males	Females	Unknown	% Male
Less than 18 years	14019	7197	6772	50	51.5%
18-64 years	14148	2469	11659	20	17.5%
More than 65 years	1452	373	1073	6	25.8%
Total	29619	10039	19504	76	34.0%
% 0-17 years	47.3%	71.7%	34.7%	65.8%	

Source: National Directorate-General for Aliens Policing of Hungary.

Table A31: Distribution of Ukrainians with Temporary Protected Status by Age and Gender, 2022

Z Appendix: The Changing Role of Individual Religiosity Between 2011 and 2022

Figures A33 and A34 compare the estimated regression coefficients on the extra support of religious respondents towards immigrants in April *versus* in November.[98] While in April 2022 individual religiosity negatively affected survey respondent's attitudes towards immigrants (with the exception of immigrants who arrive from Ukraine or who are ethnic Hungarians), in November religious respondents turned to be significantly more pro-immigrant than their non-religious fellows.

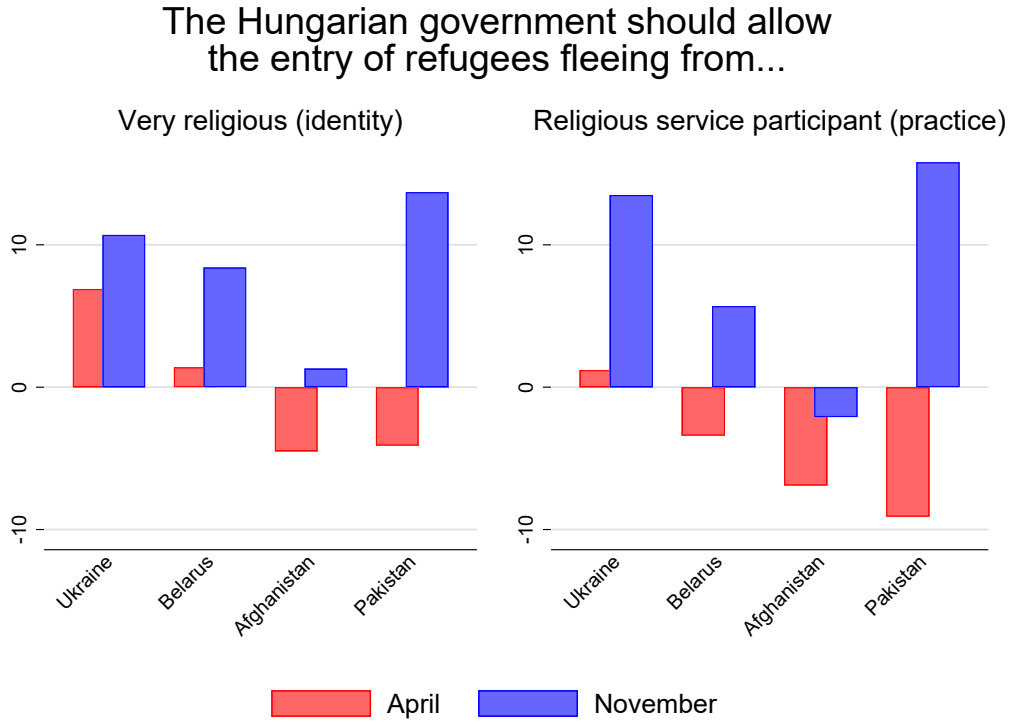

Figure A33: Changes of the Estimated Parameters of Religious Survey Respondent (April and November 2022) – Public Opinion towards Refugees by Source Country

One possible concern is that the relative support of religious respondents as compared

[98] These coefficients were reported earlier in panels B and C of Tables A21 and A27 for the April wave, and in Panels B and C of Tables A12 and A16 for the November wave.

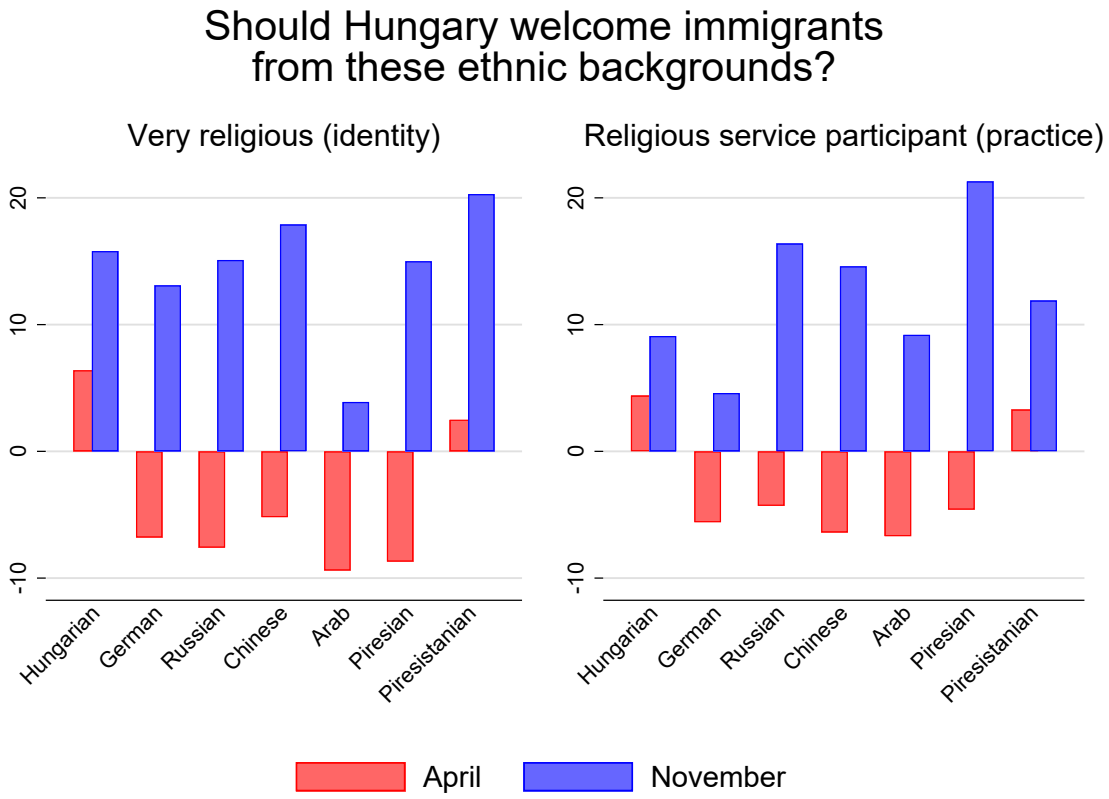

Figure A34: Changes of the Estimated Parameters of Religious Survey Respondents (April and November 2022) – Public Opinion towards Refugees by Ethnicity

to non-religious respondents might increase even if the absolute support of religious respondents decreases (this might be the case when the the support of non-religious participants drops by a larger magnitude). Figures A35 and A36 mitigate this concern and show that religious respondents absolute support towards immigrants has even increased by November, despite the general declining trend in attitudes towards immigrants.

To study the heterogeneous effect of individual religiosity over a longer time horizon, we estimate the following linear probability model for survey respondents who are opposed to admitting all refugees to Hungary on a pooled cross-section dataset between April 2011 and November 2022:

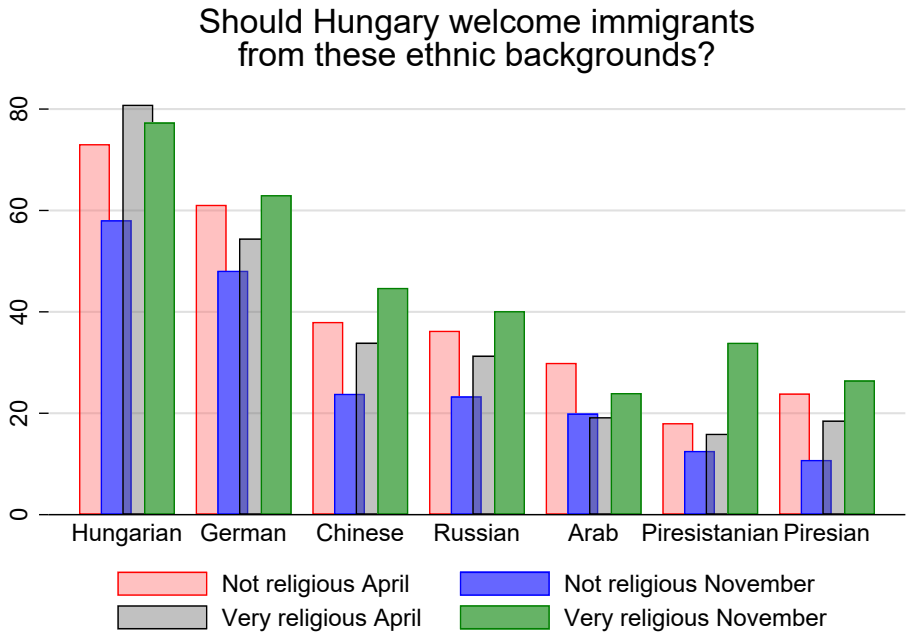

Figure A35: Support for Immigrants with Different Ethnic Background, by Religious Identity, April versus November 2022

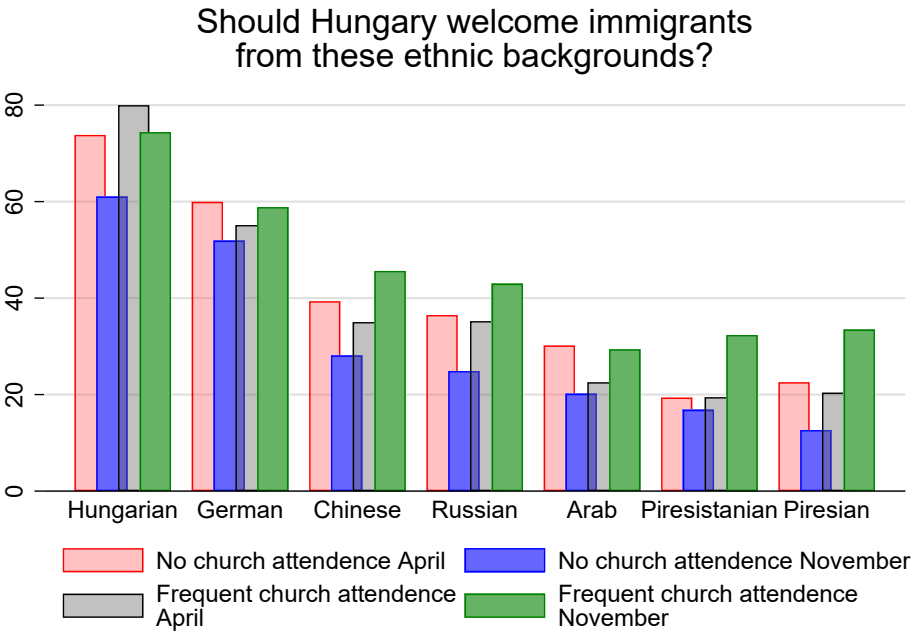

Figure A36: Support for Immigrants with Different Ethnic Background, by Religious Practice, April versus November 2022

$$y_{it} = \alpha + \beta_1 Religiosity_{it} + \sum_{t=2}^{10} \beta_t Religiosity_{it} \times Wave_t + \sum_{t=2}^{10} \gamma_t Wave_t + X'_{it}\delta + \epsilon_{it}, \quad \text{(A5)}$$

where y_{it} is a dummy variable indicating that respondent i in wave t is opposed to admitting any refugees; $Religiosity_{it}$ measures the frequency of participating in religious services (with a value of 1 if survey respondent never attends any religious services and a value of 3 if a survey respondent frequently attends religious services); $Wave_t$ are wave dummies; and X'_{it} is a vector of socio-demographic variables such as education, age, gender, marital status and activity. To understand the changing role of individual religiosity on the support for admitting refugees over time, we interact individual's religiosity and the wave dummies, while we also include wave dummies to control for time-specific factors, such as the general economic situation of the country, that could confound these relationships.

Table A32 shows the results. The parameters of interest are those of the interaction variables between individual service participation frequency and wave dummies, as these show the attitude of frequent and occasional service participants, relative to non-participants, over the different survey waves.[99] While historically (prior to both refugee crises) more frequent service participants were significantly less hostile towards refugees, this pattern changed after 2015, when the issue of immigration got much more salient. In 2016-2017, and even in April 2022, frequent service participants had similar (not statistically significantly different) attitudes towards refugees to non-participants; but they became again less hostile by November 2022. Part of the explanation of this might be the intensive anti-immigrant campaign of the Fidesz government, for which frequent service participants are likely to be more susceptible due to the positive correlation between

[99]We find that prior to the first refugee crisis in 2015, the estimated parameters are statistically not significantly different from each other, therefore we pooled together those pre-crisis survey waves.

service participation frequency and Fidesz support. So what we see in November 2022, is a return towards historical patterns in the relative support for refugees among more frequent service participants.

	Oppose migrants		Oppose migrants	
Fidesz	-0.001	(-0.08)	-0.001	(-0.06)
Jan 2016	0.161***	(8.39)	0.204***	(7.36)
Oct 2016	0.213***	(11.77)	0.222***	(8.45)
Jan 2017	0.220***	(11.65)	0.212***	(7.91)
Apr 2022	-0.258***	(-18.69)	-0.260***	(-11.08)
Nov 2022	-0.059***	(-3.10)	0.022	(0.67)
Freq serv part	-0.056***	(-3.39)	..	..
Freq serv × (before 2015)	..	..	-0.052**	(-2.29)
Freq serv × (Jan 2016)	..	..	-0.067	(-1.19)
Freq serv × (Oct 2016)	..	..	-0.001	(-0.02)
Freq serv × (Jan 2017)	..	..	0.016	(0.29)
Freq serv × (Apr 2022)	..	..	-0.038	(-1.14)
Freq serv × (Nov 2022)	..	..	-0.203***	(-4.03)
Occ serv part	-0.057***	(-5.12)	..	..
Occ serv × (before 2015)	..	..	-0.032**	(-2.06)
Occ serv × (Jan 2016)	..	..	-0.134***	(-3.56)
Occ serv × (Oct 2016)	..	..	-0.068*	(-1.94)
Occ serv × (Jan 2017)	..	..	-0.025	(-0.66)
Occ serv × (Apr 2022)	..	..	-0.031	(-1.24)
Occ serv × (Nov 2022)	..	..	-0.161***	(-4.21)
Secondary school	-0.088***	(-7.35)	-0.086***	(-7.24)
College / University	-0.191***	(-13.39)	-0.191***	(-13.39)
Constant	0.502***	(8.51)	0.485***	(8.21)
N	9760		9760	

Robust t statistics in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A32: Linear Probability Model Results with Time-varying Parameters for Religious Service Participation Frequencies

AA Appendix: Contextual Factors and Refugee Support

We calculate a simple variance decomposition using the following specification

$$\begin{aligned} y_{ij} &= \alpha_j + \varepsilon_{ij} \\ \alpha_j &= \alpha_{00} + \alpha_{0j} \end{aligned} \tag{A6}$$

where i indexes individuals, j indexes settlements, y_{ij} is the attitudes toward immigration (on a 0-100 scale), α_{00} is the average level of support, α_{0j} is the settlement-level random error term with a variance of σ^2_α that is the between-settlement variation, and ε_{ij} is the random error term at the individual level with a variance of σ^2_ε indicating the within-settlement variation.

As a final analysis, we investigate whether the effect of primarily residential exposure to religious majority is larger for religious individuals using an extended specification:

$$\begin{aligned} y_{ij} &= \alpha_j + X'_{ij}\beta + \gamma_j relig_{ij} + \varepsilon_{ij} \\ \alpha_j &= \alpha_{00} + Z'_j\alpha_{01} + Christ\_sh_j\alpha_{02} + \alpha_{0j} \\ \gamma_j &= \gamma_{00} + \gamma_1 Christ\_sh_j + \delta_{0j} \end{aligned} \tag{A7}$$

This specification allows the effect of individual religiosity on attitudes towards immigrants to vary across religious settlements.[100] Tables A33 and A34 report the results.

[100] Following from this specification, the effect of settlement-level share of Christian population is $\alpha_{02} + \gamma_1 relig_{ij}$, which means that it will be different for religious and non-religious respondents.

	Fleeing conflict in...			
	Ukraine	Belarus	Afghanistan	Pakistan
Effect of settlement-level share of Christians				
Average effect	-23.46	-40.04**	-28.77*	-38.97**
... effect among non-religious	-39.56	-22.69	-4.30	-50.22***
... effect among religious	-10.85	-55.34**	-44.06**	-30.81*
Significance of difference	-	*	**	-
... effect among non-Fidesz voters	-26.80	-23.16	-14.81	-40.22**
... effect among Fidesz voters	-20.19	-63.43***	-51.06***	-34.56*
Significance of difference	-	**	**	-

Table A33: MLM estimation of support for different source countries, with heterogeneous effect of the settlement-level share of Christian population

	Ethnicity of refugees						
	Hungarian	German	Arabic	Russian	Chinese	Piresian	Piresistani
Effect of settlement-level share of Christians							
Average effect	-12.04	-29.15*	-24.85	-57.29***	-38.53**	-61.48***	-20.00
... among non-religious	-10.63	-19.44	-4.00	-45.14**	-34.89	-57.61**	-13.16
... among religious	-13.10	-37.96**	-37.45**	-66.10***	-46.43**	-61.49***	-24.46
Significance of difference	-	-	**	-	-	-	-
... among non-Fidesz	-8.83	-19.81	-26.24	-44.48**	-34.67*	-61.67**	-25.80
... among Fidesz	-17.21	-36.15**	-35.10**	-75.64***	-49.58**	-69.01***	-4.41
Significance of difference	-	-	*	-	-	-	-

Table A34: MLM estimation of support for different ethnicities, with heterogeneous effect of the settlement-level share of Christian population

We find that the settlement-level Christian population share explains anti-refugee (Table A33) and anti-immigrant (Table A34) attitudes primarily among religious voters and among Fidesz supporters. Taking into account the regional context of Hungarian public opinion thus reveals the nuanced relationships between individual and contextual factors in shaping public opinion towards refugees.

AB Appendix: Summary Statistics and Variables Definition – Settlement Level Characteristics

	Mean	Median	Standard Deviation	Observation
Share of Christian Population	0.538	0.506	0.146	1023
Share of Catholic Population	0.407	0.374	0.161	1023
Share of Protestant Population	0.131	0.103	0.111	1023
Share of Foreigners	0.003	0.002	0.004	1023
Share of Roma	0.032	0.013	0.045	1023
Gross Income per Capita (in million HUF)	1.679	1.690	0.425	1023
Net Income per Capita (in million HUF)	1.432	1.461	0.346	1023
Share of Public Workers	0.013	0.004	0.023	1023
Share of Unemployed	0.038	0.029	0.028	1023
Share of Long-term Unemployed	0.014	0.011	0.013	1023

Notes: Data comes from TEIR dataset. Means are population weighted.

Table A35: Summary Statistics (Settlement-level Data)

Definition and source of the variables used at settlement-level:

Religion (source: 2011 Microcensus)

1. Share of Christian population
    - (No of Catholic + Orthodox + Protestant + Evangelist)/Population 2011
2. Share of Catholic population
3. Share of Protestant population

Ethnicity (source: 2011 Microcensus)

1. Share of Roma people
2. Share of foreigners

- (No of Arab + Chinese + Russian + Ukrainian + Vietnamese)/ Population 2011

Income (source: 2020 Teir)

1. Gross per capita income (in million HUF) [101]

    - Total personal income tax base in a given settlement in 2020 to population in 2020

2. Net per capita income (in million HUF)

    - Income after taxation in a given settlement in 2020 to population in 2020.

Unemployment (source: 2022 Teir)

1. Share of unemployed in April 2022 (monthly, settlement-level data)

    - Number of individuals registered as unemployed to the size of the working age population (the number of permanent residents between the ages of 18 and 59)

2. Share of long-term unemployed in April 2022 (monthly, settlement-level data) – Unemployed for at least 180 days

    - Number of individuals registered as unemployed for at least 180 days to the size of the working age population (the number of permanent residents between the ages of 18 and 59)

Public workers (source: 2022 Teir)

1. Share of public workers in April 2022 (monthly, settlement-level data)

[101] This is a gross measure and it shows well the economic activity in a settlement. The net per capita income measure, on the other hand, shows the disposable income in a settlement. The net measure, nonetheless, might be endogenous. For example, as a result of Fidesz family support scheme, families enjoy large reduction in their personal income tax rate.

- Number of public workers to the size of the working-age population (the number of permanent residents between the ages of 18 and 59)

Distance to the Borders

1. Distance from the Ukrainian border (from the main border-crossing from Ukraine, from Beregsurány) in kilometre
2. Distance from the Ukrainian border (from the main border-crossing from Ukraine, from Beregsurány) in minutes
3. Distance from the Serbian border (from the main border-crossing from Serbia, from Röszke) in kilometre
4. Distance from the Serbian border (from the main border-crossing from Serbia, from Röszke) in minutes

AC Appendix: The Changing Importance of Settlement Level Roma Share and Christian Share – 2011-14 versus 2022

In Section 6, we show that in 2022, the settlement-level share of Christians and the settlement-level Roma share are significant determinants of individuals' anti-immigrant sentiments.

To test whether and up to what degree respondents' local environment affected survey respondents' anti-immigrant attitudes *prior* to the refugee crises, we test the effect of settlement-level variables on individuals' attitudes between 2011 and 2014. We do this to learn more about changes in the effect of respondents' local environment on their views about refugees over time. We rely on five additional rounds of survey data (April 2011, May 2011, June 2011, March 2012 and April 2014). These surveys were conducted by TARKI applying the same sampling procedures as before, however, in the earlier survey waves, respondents were asked their views about refugees with different ethnic background for Ethnic Hungarians living abroad, Arabs, Chinese and Piresian only. Additionally, survey respondents were only asked their views about refugees *if* their earlier answers to the general anti-immigration question was that some immigrants should be allowed in, while some others should not. Another difference between these earlier surveys and our surveys is the response category; in the earlier survey waves, respondents were either in support of or against allowing in refugees (thus it was a yes or no answer category).[102]

We re-estimate our multi-level regression models of Equation 4 as in Section 6. The dependent variable is not a scale variable on a 0-100 interval, but a dummy variable which equals 1 if the respondent agrees to allow in an immigrant with different ethnic

[102] In April and November 2022, respondents had to choose on a scale of 1-4.

background.[103] The estimated parameters appear in Table A36.

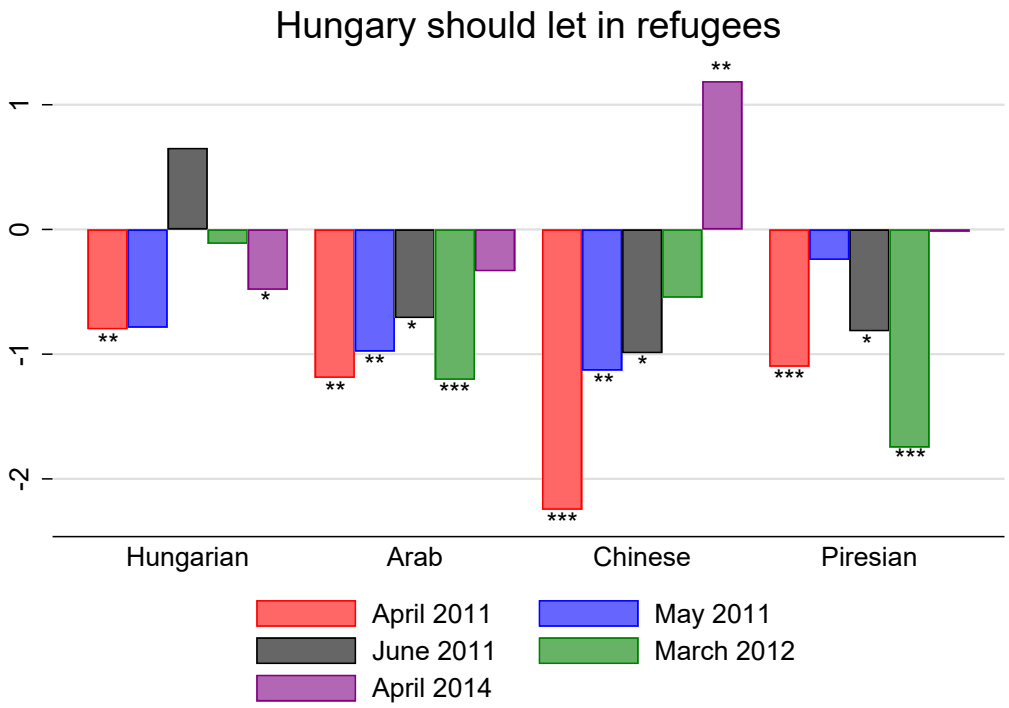

Figure A37: The Effect of Settlement-level Roma Share on Survey Respondents' Immigrant Attitudes, 2011–2014

Note: The dependent variables are dummy variables equal to 1 if survey respondents would allow in immigrants with different ethnic background and zero if they would not. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

Figure A37 shows the estimated parameters of the settlement-level share of Roma population for survey respondents' view on immigrants with different ethnic background between 2011 and 2014. Results indicate that the estimated parameters of the settlement-level Roma share are almost always significant and negative. Thus, respondents who live in settlements with higher share of Roma population are in general more anti-immigrant.

Figure A38 shows the estimated parameters of the settlement-level Christian share, for individuals' view about immigrants with different ethnic background. There is no clear

[103]Hence, positive estimated parameters imply that respondents are generally more pro-immigrants.

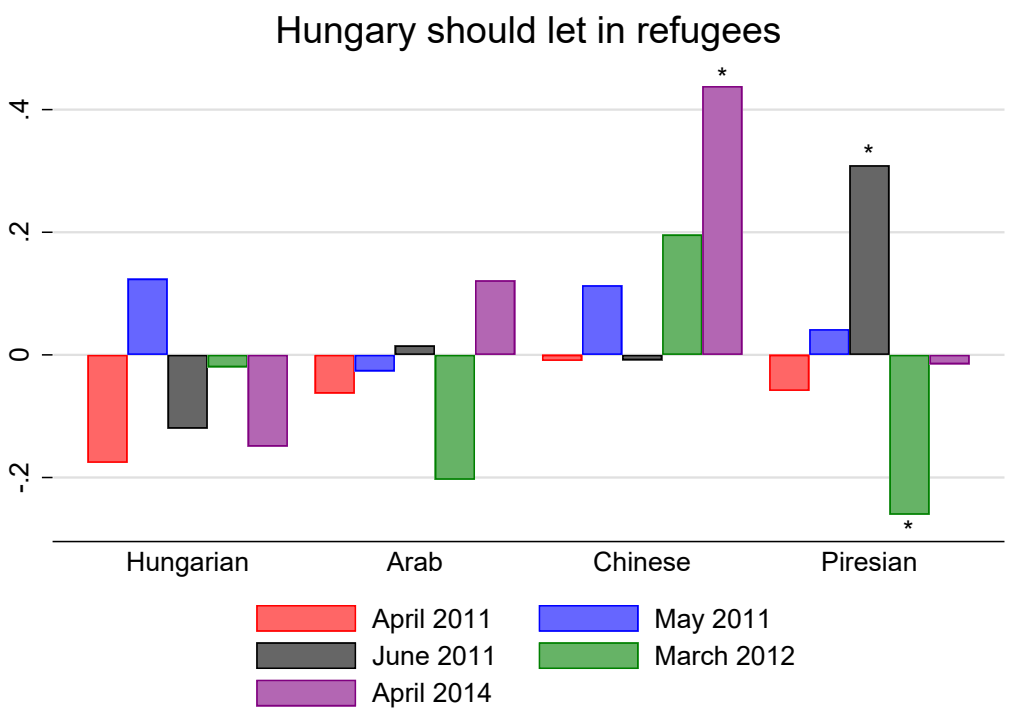

Figure A38: The Effect of Settlement-level Christian Share on Survey Respondents' Immigrant Attitudes, 2011–2014

Note: The dependent variables are dummy variables equal to 1 if survey respondents would allow in immigrants with different ethnic background and zero if they would not. *, ** and *** denote significance at 10%, 5% and 1% level, respectively.

pattern in this case: estimated parameters are sometimes negative, sometimes positive, but mostly insignificant.[104] This result is similar to our findings in November 2022 (in Table 9), but contradicts our April 2022 results (in Table 8).

[104]Only 3 out of the 20 estimated parameters are significant at the 10% level.

	Ethnicity			
	Eth. Hungarian	Arab	Chinese	Piresian
Panel A: April 2011				
Christian share	-0.1760	-0.0631	-0.0098	-0.0587
Roma share	-0.8016**	-1.1903**	-2.2476***	-1.1006***
Income pc	-0.0001*	-0.0001	-0.0004**	-0.0002*
Fidesz vote share	0.1724	-0.1487	-0.7990	-0.4267
Foreigner share	1.4753	-9.9554	-7.2227	-21.4602**
Panel B: May 2011				
Christian share	0.1242	-0.0268	0.1135	0.0419
Roma share	-0.7876	-0.9789**	-1.1312**	-0.2443
Income pc	-0.0001	0.0000	0.0001	0.0001
Fidesz vote share	-0.0956	-0.9364**	-1.8610***	-0.4452
Foreigner share	25.1413*	6.5500	23.8482	0.7995
Panel C: June 2011				
Christian share	-0.1202	0.0153	-0.0086	0.3092*
Roma share	0.6541	-0.7109*	-0.9923*	-0.8168*
Income pc	0.0001	-0.0000	-0.0001	0.0000
Fidesz vote share	0.2859	-0.9731**	-1.1916**	-0.7888***
Foreigner share	-10.2302	22.4046	18.2065	39.0289
Panel D: March 2012				
Christian share	-0.0200	-0.2036	0.1962	-0.2606*
Roma share	-0.1150	-1.2061***	-0.5470	-1.7488***
Income pc	-0.0002**	-0.0004**	-0.0005*	-0.0007***
Fidesz vote share	0.1561	0.3374	0.3606	0.5989
Foreigner share	5.9863	13.2556	29.5774	26.6472
Panel E: April 2014				
Christian share	-0.1495	0.1216	0.4384*	-0.0151
Roma share	-0.4841*	-0.3356	1.1893**	-0.0184
Income pc	-0.0001	-0.0002	0.0001	-0.0000
Fidesz vote share	0.2862	0.1763	-0.0202	0.0710
Foreigner share	-14.3409	33.6786*	20.3430	9.1639
Indiv. controls	Yes	Yes	Yes	Yes

Notes: *, ** and *** denote significance at 10%, 5% and 1% level, respectively. The dependent variable is a dummy variable which equals 1 if the respondent agrees to allow in an immigrant with different ethnic background and zero otherwise.

Table A36: MLM Estimation for Individuals' Attitude about Immigrants with Different Ethnic Background, 2011 – 2014

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