After the arrivals: How rural and urban areas differ in their responses to asylum seekers

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Abstract

Research has increasingly attempted to uncover the mechanisms of hostility and hospitality towards refugees in the wake of the 2015 refugee crisis. There seems to have emerged a unanimity that mere exposure to asylum seekers and refugees increases hostility in natives, but more and more research points in the direction that prolonged contact between natives and refugees increases hospitality, in line with the contact hypothesis. However, levels of urban density are an important confounder when it comes to measuring contact: refugee arrivals are more visible in a village than in a city, and this fact is likely to determine the level of exposure to refugees among natives. This paper tests the assumption that urban density matters when examining natives' reactions by running an original survey among rural and urban dwellers that either witnessed or did not witness asylum seekers arrivals in their municipality. Results show that reactions to asylum seekers are more favorable in rural areas than in cities and this spills over to favorable attitudes to immigration in general. Contact, economic interests, and lower levels of crime in rural areas all contribute to these differences.

Keywords: rural–urban divide, asylum seekers, public opinion, xenophobia, refugees

1 Introduction

What determines if natives react positively or negatively to asylum seeker arrivals? Existing literature that examines natives' levels of hostility and hospitality towards asylum seekers and refugees in the wake of the 2015 refugee crisis has come to somewhat inconclusive results: by and large natives' reactions seem to be hostile (Dinas, Matakos, et al. 2019; Hangartner et al. 2019; Edo et al. 2019; Tomberg, Smith Stegen, and Vance 2019), but further research has shown that upon actually coming into closer and prolonged contact with asylum seekers natives' attitudes turn more favorable (Steinmayr 2020; Vertier and Viscanic 2018). However, the size of the municipality is likely to influence the amount and nature of exposure natives get, even if contact is prolonged in all cases. While previous literature on immigration acknowledges that rural–urban differences exist in natives' evaluations of immigrants (Dustmann, Vasiljeva, and Piil Damm 2018; Maxwell 2019; Barone et al. 2016), no research has yet systematically examined how rural and urban areas differ in their citizens' evaluations of refugee arrivals after 2015.

This is especially important because all existing research on rural immigration attitudes so far demonstrates that rural dwellers are more hostile towards immigration and refugees than urban areas, yet research that manages to isolate contact as a mechanism has managed to do so in sparsely populated areas, such as small municipalities in upper Austria (Steinmayr 2020) and holiday villages in France (Vertier and Viscanic 2018). Schaub, Gereke, and Baldassarri 2019 examine refugee arrivals in rural East-Germany, and find that asylum seeker arrivals in 2015 did not aggravate the hostility towards them, but rather served as a reality check. If rural areas are as negatively pre-disposed towards immigrants and refugees as current research finds, why do sudden asylum seeker arrivals trigger unexpected reactions towards them?

While previous works on the rural–urban division all assess immigration attitudes, there are reasons to believe that sudden refugee arrivals trigger different reactions than long-term immigration policies: immigration policies are a result of long-term planning and gradual increase in foreign-born population in a municipality, often driven by self-selection to live in these areas. In contrast, the sudden shock of 2015 caught politicians largely unprepared and led to many areas experiencing relatively large-scale and unplanned management of asylum seeker

accommodation. In 2015 many areas that had no first-hand experience from refugee accommodation found themselves housing asylum seekers, and thus a so far abstract idea became lived reality. As this situation is different from long-term immigration policies, there is a need in the literature to both assess rural and urban reactions to asylum seeker arrivals and differentiate between general immigration preferences and specific reactions to the lived experiences of 2015. It could be that experience of asylum seekers only extends to altered thinking about refugees in particular, rather than immigration in general.

This paper makes use of this situation in Finland, where the sudden increase in asylum seekers caught policy planners off guard. This led to many municipalities accommodating asylum seekers that had very limited experience of foreign-born inhabitants, no previous refugee reception policies and no say in choosing to accept these arrivals. The suddenness of the situation creates an optimal setting for examining how unexpected exposure to asylum seekers unfolded in different types of municipalities. Do rural–urban divisions hold after actual exposure to asylum seekers and do reactions to refugees differ from general immigration attitudes in these areas?

This study uses block sampling in rural and urban areas. These areas respectively consist of units that received asylum seekers and units that did not. The Finnish population was divided into four blocks: urban areas that housed asylum seekers in 2015–2016, rural areas that housed asylum seekers, urban areas that did not and urban areas that did. Within all these four blocks a representative sample of survey respondents was sampled. Survey respondents were first asked about general immigration attitudes. Half way through the survey respondents were reminded about the sudden inflow of asylum seekers in 2015 and subsequently asked how the 2015 asylum seeker arrivals affected the municipality (if the municipality received asylum seekers) or Finland (if the municipality did not receive asylum seekers). This set up enables us to measure 1. baseline attitudes to immigration without an encouragement to think about the happenings of 2015 and 2. how the introduction of thinking about either personal or second hand experiences from the refugee crisis affects responses specifically regarding asylum seekers. As the first set of questions measures attitudes to *immigration* and the second attitudes to *asylum seekers*, I am also able to measure differences between attitudes to immigration in

general and attitudes to refugee arrivals.

Results show that attitudes to both asylum seekers and and immigrants are more negative in urban municipalities than in rural receiving areas. Respondents in rural areas report fewer crimes and express greater optimism about the cultural integration of asylum seekers and their benefits to the Finnish society when compared to urban receiving areas. After exploring if these reactions are driven by the different occupational groups in urban and rural areas, lower levels of crimes in rural areas, or more contact between natives and asylum seekers in rural areas, all these factors emerge as contributing mechanisms. Contact tends to boost belief in cultural compatibility, whereas having a profession that benefited from asylum seekers boosts economic optimism, while higher crime rates in urban areas drive negative sentiments about immigration.

This study provides a systematic inquiry into the many possible explanations of hostility and hospitality toward asylum seekers and immigrants. By isolating urban and rural areas it is the first study to compare how reactions differ according to the type of municipality and to compare how the type of municipality affects the nature of contact with asylums seekers. Furthermore, by examining both immigration attitudes and experiences of asylum seekers it manages to test if the two categories are as related to one another as existing literature has assumed. The finding according to which rural areas are more receptive to asylum seekers and that these positive reactions spill over to general immigration attitudes can be used in policies when planning the best reception for refugee arrivals.

2 Theoretical considerations

Research on natives' attitudes to immigration has approached the topic from a variety of angles. Research has sought to establish if natives' reactions are positive or negative, either through survey experiments (Christ et al. 2014; Enos 2014; Hangartner et al. 2019) or by using voting results as an outcome (Otto and Steinhardt 2014); Halla, Wagner, and Zweimueller 2017; Harmon 2018; Dustmann, Vasiljeva, and Piil Damm 2018; Barone et al. 2016; Dinas, Matakos, et al. 2019. Subsequently, researchers have also tried to establish causal pathways

to these reactions, by examining whether reactions stem from the respondents' labor market position (Mayda 2006; Hainmueller, Hiscox, and Margalit 2015; Malhotra, Margalit, and Mo 2013), cultural distance between the groups (Sniderman, Hagendoorn, and Prior 2004), contact (Steinmayr 2020); Vertier and Viscanic 2018), sociotropic evalutions (Kreibaum 2016; Liao, Malhotra, and Newman 2020), or fear of crime (Fitzgerald, Curtis, and Corliss 2012; Dinas and van Spanje 2011).

Rural–urban divisions in immigration attitudes, on the other hand, have not been the explicit objects of research, but rather have come up as possibly explanations for heterogeneous treatment effects. Both Barone et al. (2016) and Dustmann, Vasiljeva, and Piil Damm (2018) propose rural–urban differences as reasons for higher hostility towards immigrants and refugees in rural areas than in cities. According to both articles, work-place interactions that enable contact and benefit natives happen in cities, whereas in rural areas there are less meaningful interactions between natives and immigrants. Andersson and Dehdari (2020) confirm that interactions at work do decrease the vote for the extreme right. Although this research does not address rural–urban divisions per se, when taking into account that large enterprises tend to operate in cities, these results indicate that cities enable the types of interactions that suppress hostility to immigrants. Maxwell (2019) does not research lived experiences and reactions to immigration exposures, but measures the outlooks of survey respondents in rural and urban areas and concludes that people with more liberal values self-select to live in urban areas, and this explains the perceived rural-urban divisions in immigration attitudes. We can condense existing knowledge about rural–urban divisions in immigration attitudes to two points: 1. urban areas attract more liberal individuals 2. once there are lived experiences of immigration, it is more likely to have close contacts with immigrants in the city than in rural areas.

The specific reactions to refugee arrivals in *rural* areas has only been researched by Schaub, Gereke, and Baldassarri (2019), who examine how left-behind areas in rural Eastern Germany in the wake of the 2015 refugee crisis. The setting serves as an ideal setting to test what existing literature informs us, namely that where presence of foreigners is minimal (e.g. rural areas), anti-immigration sentiment is high (Golder 2016). The authors arrive at the somewhat surprising conclusion that areas without significant prior history of immigration had little bearing

on anti-immigrant attitudes and right-wing support. If anything, the authors state, receiving asylum seekers in 2015 served as a reality check for the natives: those more on favor of refugees prior to the arrivals became more conservative, whereas those more skeptical about refugees started assessing them more favorably. The overall null results raise the very interesting question, that if rural areas are hostile both in baseline levels and they also have been shown to react negatively to refugees and immigration in previous research, then why is there no backlash in rural Germany?

The heterogeneity in existing research findings in rural areas in Italy, Germany, and Denmark might be explained by the many possible mechanism at play in rural areas, which have not been tested systematically. Studies suggest so far that contact might work, but whether contact is likely to happen in cities, and more specifically, in diverse workplace settings, or whether it is the smallness of the municipality that enables contact, is unresolved. Steinmayr (2020) and Vertier and Viscanic (2018) find a decrease in anti-immigration voting as a result of receiving asylum seekers and both studies attribute these results to contact theory. Interestingly, both these studies draw their conclusions from small municipalities, rather than cities. This means that it could be possible that the prerequisite to contact is the smallness, or ruralness of the community, but existing research has not attempted to isolate population size and density as prerequisites for contact theory to work. As things stand, contact theory could either work in cities facilitated by co-working, or in rural areas, facilitated by increased closeness to and visibility of refugees. Crucially, existing literature testing or suggesting contact as a mechanism draws both from immigration and refugee arrivals, but it is possible that immigration and refugee arrivals trigger different reactions in both rural and urban areas.

Another factor to consider when evaluating how contact works is the difference between meaningful contact and mere exposure. While exposure is more likely to happen when the population size of the receiving municipality is small, there is little indication as to whether this exposure leads to any meaningful contact. Allport (1954) himself stated that in order for the contact hypothesis to work, the two sides need to build a meaningful relationship, preferably a friendship. Being clear about the exact nature of contact is important as Christ et al. (2014) show that levels of prejudice do not only depend on who the person interacts with, but who the

people one knows interact with. This means, contact is transmitted in the community one lives in, and positive inter-group experiences travel within communities even without direct contact.

On the other hand, Enos (2014) shows that when randomly inserting Spanish-speaking people in the daily lives of unknowing Anglo-whites in homogeneous communities in the US, the result was a significant shift toward exclusionary attitudes among treated subjects. As things stand, there is no knowing whether asylum seeker arrivals lead to significant and meaningful contacts or rather to repeated superficial exposure and if this is different in rural and urban areas. To settle to question between contact and mere exposure, we would need to ask respondents about the nature of contact in both rural and urban areas.

Although contact is a likely candidate to explain attitudes towards asylum seekers, research has also proposed other mechanisms to explain why natives react the way they do to arriving immigrants, refugees, and asylum seekers. None of these strands of research have tested whether the mechanisms differ in rural and urban areas. Existing research mainly revolves around two mechanisms: labor market competition and cultural differences. Mayda (2006) and Malhotra, Margalit, and Mo (2013) propose that when immigrants threaten to take natives' jobs, opposition to immigration increases. Hainmueller, Hiscox, and Margalit (2015) concluded that rather than competition on the labor market, cultural fears of immigration are more likely to explain anti-immigration attitudes. Fears of conserving the national culture has indeed been put forward as an explanation for anti-immigrant attitudes (Sniderman, Hagendoorn, and Prior 2004) and it has been shown that Europeans favor immigrants who are culturally closer to them (Bansak, Hainmueller, and Hangartner 2016).

A new line of research is exploring if the positive economic impact of immigration makes a difference when assessing immigrants. Kreibaum (2016) studies how refugee arrivals in Uganda affect the local economy and the perceptions natives have of refugees. The findings of the paper are that the Ugandan population living near refugee settlements benefits both in terms of consumption and public service provisions, but the locals do not feel that this translates to improvements in in their own lives. Liao, Malhotra, and Newman (2020) explore how Chinese foreign capital affects the way people evaluate Chinese immigrants in the US. The authors find that immigration attitudes, as well as views towards China, became more positive over

time among Americans residing in locales whose economies were stimulated by Chinese foreign investments.

Another possible explanation for anti-immigration/anti-refugee sentiments is crime. Fitzgerald, Curtis, and Corliss (2012) suggest that consternation about crime is a significant predictor of anxiety over immigration, having a greater substantive impact than other explanatory factors, such as concerns about the economy and objective measures of crime and immigration at the regional level. Dinas and van Spanje (2011) argue that high local crime rates make an anti-immigration vote more likely, but only among voters who prioritize being tough on crime. Again, there is no indication as to whether the prioritization of crime happens rather in rural or urban areas. Crime rates are consistently higher in urban than in rural areas (Glaeser and Sacerdote 1999), which would indicate that the issue of crime would be prioritized in these areas. However, the general level of conservatism among rural dwellers (Maxwell 2019) would mean that those who make crime a priority are more likely to reside in rural than in urban areas.

Finally, as the first chapter of this thesis suggests, the issue of depopulation might be a mediator in the positive reaction to refugee arrivals in rural areas. Politicians evaluate refugee intake first and foremost based on the contribution they make to the local municipal economy, and areas that suffer from depopulation (e.g. rural areas) begin to see refugee arrivals as population boost to the local community. It might be possible that the local inhabitants follow a similar train of thought when evaluating refugees, and in addition to the economic impact, they also evaluate the possible population boost that refugee arrivals generated in 2015.

In what follows I demonstrate how the research design and the survey instrument test the above hypotheses in rural and urban settings to assess how rural and urban natives evaluate refugee arrivals from a personal perspective.

3 Research Design

This study relies on block sampling, in which respondents from four categories are invited to take part in the study.[1] These four categories are: rural municipalities that received asylum seekers, rural municipalities that did not receive asylum seekers, urban municipalities that received asylum seekers, and urban municipalities that did not receive asylum seekers. In all categories a representative sample was invited to take part in a survey. Due to a more limited size, rural respondents that received asylum seekers were reached via telephone calls rather than panel survey. The respondents did not know at any stage which block they were sampled for, and with the exception of the line reminding them of receiving or not receiving asylum seekers in 2015, the surveys were identical. All municipalities that had pre-existing reception centers or had managed a reception center in the past five years prior to 2015 were dropped, in order to be able to measure the net effect of new and unexpected arrivals as opposed to long term experience.

In line with the official line of Statistics Finland, I define municipalities as rural if the population size is smaller than $15,000$ and urban density (measured as the share of houses less than 200 meters apart) is less than 60. To be consistent with what the situation looked like when the treatment (quasi-random arrival of asylum seekers) took place, I use the measures for this from 2015. When asking about asylum seekers, I drop from the analysis all respondents who have not lived in the municipality before 2015, to make sure that all respondents are reporting about the experiences they are assumed to have.

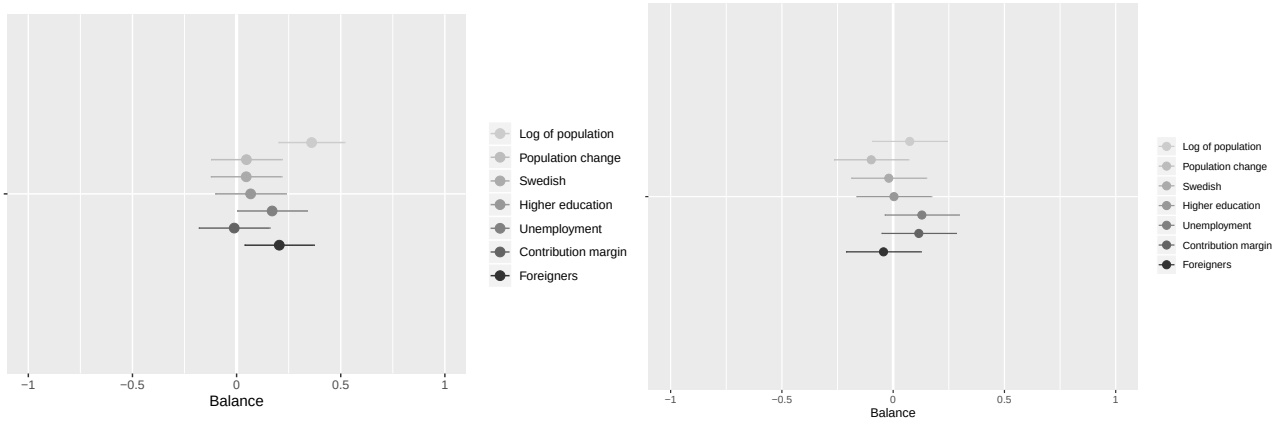
The study relies on the assumption that respondents were quasi-randomly exposed to asylum seekers. This assumption stems from that a) the Finnish immigration services sought housing for asylum seekers on very short notice and opened reception centers where there was available housing without at any stage directly consulting the citizens' opinion on the matter b) the respondents' demographic characteristics, such as age, education, and income are balanced between areas that received or did not receive asylum seekers in 2015, after taking into account

[1]This research design and questionnaire was approved by the Oxford University's Departmental Research Committee with the reference number SSH-DPIR-C1A-20-011.)

their rural–urban status. In short, some people with otherwise similar characteristics were exposed to asylum seekers without their personal consent in 2015 and some did not, and it is possible to establish comparable counterparts from from non-receiving areas.

Although no input was asked for from citizens in the process of establishing reception centers, it might still be possible that authorities sensed a hostile public opinion towards the idea of establishing a reception center and thus refrained from doing so.[2] To check for this, I examine if receiving and non-receiving municipalities voted systematically more in favor of the openly anti-immigration Finns' Party prior to the treatment in 2015. When regressing vote share for the True Finns in the 2012 municipal elections, the resulting coefficient is weak and statistically insignificant ($p = 0.9$). Receiving and non-receiving areas are thus comparable in their political climates and the possible pre-existing levels of opposition to asylum seekers among the citizens did not play a role in determining which areas received asylum seekers.

In the below graphs I present balance in demographics at the municipality level between treated and non-treated rural and urban areas. The share of Swedish-speaking natives is included because Swedish-speaking areas are systematically more liberal in Finland than Finnish-speaking areas.



(a) Urban municipalities

(b) Rural municipalities

Figure 1: Standardized coefficients plotted for OLS regressions testing the relationship between being treated in 2015 and municipality specific covariates.

As is visible from the above graphs, whereas the balance is perfect in rural municipalities, in

[2]In some cases citizens started petitions against reception centers or staged protests or even violent attacks on reception centers, but none of these activities yielded a reversing of the establishment decision.

urban municipalities there is some imbalance: more urban municipalities with higher population and thus a slightly higher share of foreign nationals and unemployed[3] were more likely to receive reception centers. The differences do not surpass half a standard deviation, but they raise the question if treated and non-treated urban areas are systematically different and if available housing is correlated with inherent characteristics of the municipalities. To address this issue, I will include these covariates showing imbalance (share of foreigners, log of population, and level of unemployment) at the municipality level. In order not to confuse these imbalances with treatment effects, I include these covariates from the end of 2014, the final time of pre-treatment measurement of these indicators.

The sample is not designed to be nationally representative, as receiving, especially rural receiving areas, are intentionally oversampled.[4] The Appendix contains additional information in what respects the sample differs from the national realities, but for the purposes of this study, it is just crucial to establish that the respondents are similar in rural and urban areas across treated and non-treated units. Results cannot be interpreted as causal without the assumption that treatment status is uncorrelated with other individual characteristics that might differentially affect the response to the treatment in rural and urban areas respectively. To this end, I perform a similar randomization test for the respondents as for the municipalities between treated and non-treated rural and urban municipalities.

Tables A1, A2, A4, and A5 confirm that treated and non-treated rural and urban areas, respectively, portray strikingly similar characteristics, confirming that treatment status does not systematically correlate with the demographic features or pre-treatment political views of the respondents. While urban areas unsurprisingly portray characteristics associated with higher education, there are no differences between treated and non-treated units. As the rural-

[3]While cities are more thriving in Finland than rural areas, they attract people with no employment, such as recent graduates due to higher chances of finding employment.

[4]Following the advice from Miratrix et al. (2018), I refrain from using weights to make the sample nationally representative. Rather, the experimental set up requires randomization in the creation of the blocks, which is fulfilled with the exception of a few covariates that must be controlled for, while survey weights have been shown to increase uncertainty.

urban differences are incorporated in the research design, all that matters for the validity of the design are any possible systematic differences between treated and non-treated units to account for any possible self-selection to the treatment. The randomization checks confirm that treatment and control groups in both rural and urban areas are balanced, with the few exceptions of slightly lower educational and professional statuses of treated rural areas, which will be dealt with in robustness checks.

One additional concern is that there would be a bigger threat of social desirability bias in telephone surveys than in the online panel, due to the latter ensuring more anonymity and no human interaction. To test if this is the case, I compare the share of respondents who refrain from disclosing their annual income and party of preference (both questions that can be regarded as highly personal information in Finland) between rural individuals that were telephoned and rural individuals who took the online panel. The resulting percentages do not confirm that respondents are less willing to disclose information over the phone: 13.6 percent of panel respondents in rural areas refrain from disclosing their income, while 12.3 percent of rural phone survey respondents do so. If anything, panel respondents opt out more. Disclosing the choice of party in the latest election is nearly identical in both groups: 5.56 percents refrain in the panel and 5.30 over the phone. Apart from these items there were no other questions in which the respondents' could choose not to answer the questions, so response bias is not a problem.

The estimation of the treatment variable (exposure to asylum seekers) is described by the following equation:

$$Y_{ji} = \beta_0 + \beta_1 AsylumSeekers_i + \beta_2 Urban_i + \beta_3 Urban_i \times AsylumSeekers_i + X_{it}\beta + \varepsilon_{ji}$$

where Y_{ji} is the individual respondents' j stance in municipality i, $AsylumSeekers_{it}$ the binary treatment variable switching on when the municipality received asylum seekers, $Urban_i$ is a dummy rural–urban variable, $X_i\beta$ is a vector covariates messured at the municipality level and ε_{jt} denotes the error term. The account for serial correlation and heteroskedasticity, I cluster standard errors at the level the treatment was assigned, that is, at the municipality

level.[5]

3.1 The survey

The survey was framed as a general survey on societal attitudes among Finnish respondents. After questions inquiring demographic features and voting behavior, the first battery contained questions measuring general immigration attitudes, derived from existing literature. The questions appeared in a random order to make sure that survey fatigue did not affect the results. Moreover, some statements were formulated as positive and some as negative statements to avoid positive and negative respondents clicking through the survey too fast. Agreement of the following statements was measured on a 5 point scale.

1. Finland needs more immigration to make up for demographic losses.

2. Work-based immigration boosts the economy.

3. All other types of immigration except for work based immigration is detrimental to Finland.

4. Immigrants take Finnish jobs.

5. Immigrants enrich the Finnish culture.

6. Immigrants from outside of the Western culture will not fit in the Finnish culture.

These questions measure baseline general immigration attitudes among the respondents and they also simultaneously test the labor market and the cultural threat hypotheses. It provides an opportunity for respondents to distinguish between economic and cultural consequences of immigration and voice their support selectively.

[5]Following the guidance given by Homola, Pereira, and Tavits (2020) I have decided not to include municipality fixed effects. This is because the work at hand is interested in the overall effect of receiving asylum seekers in rural and urban areas. Any anticipated confounders that might affect perceptions of asylum seekers are dealt in the sampling process by a) dividing the sample to rural and urban areas and b) including controls on which the units of analysis (municipalities) show imbalance on. The sampling procedure ensured that no municipality was overrepresented in the sample.

After this respondents were informed about how Finland was affected by the 2015 refugee crisis. This text differed slightly between respondents who reside in municipalities that received or did not receive asylum seekers in 2015. According to the respondents' treatment status, they read the following texts:

In 2015 Finland experienced an unprecedented wave of refugee arrivals, in which about $33,000$ *asylum seekers arrived in our country in about a month. Please assess how accommodating asylum seekers affected* ***Finland*** *(if the municipality did not receive asylum seekers) or* ***your municipality*** *(if the municipality did receive asylum seekers).*

The respondents then agree or disagree in the similar 1–5 scale in a randomized order with the following statements:

1. The asylum seekers livened up the streets.
2. The asylum seekers committed crimes.
3. The asylum seekers gave us an opportunity to practice our humanitarian responsibilities.
4. The asylum seekers had a positive economic impact.
5. The asylum seekers boosted the population.

These statements test a number of hypothesis in the literature. First of all they test if the respondents associate receiving asylum seekers with positive changes in the daily life (livening up the streets) or negative ones (committing crimes). The statements go on to test the mechanisms for any possible positive reactions, based on the findings derived in the first paper derived from elite-level data: whether the respondents perceived a chance to practice humanitarianism, or whether they perceived sociotropic contributions.

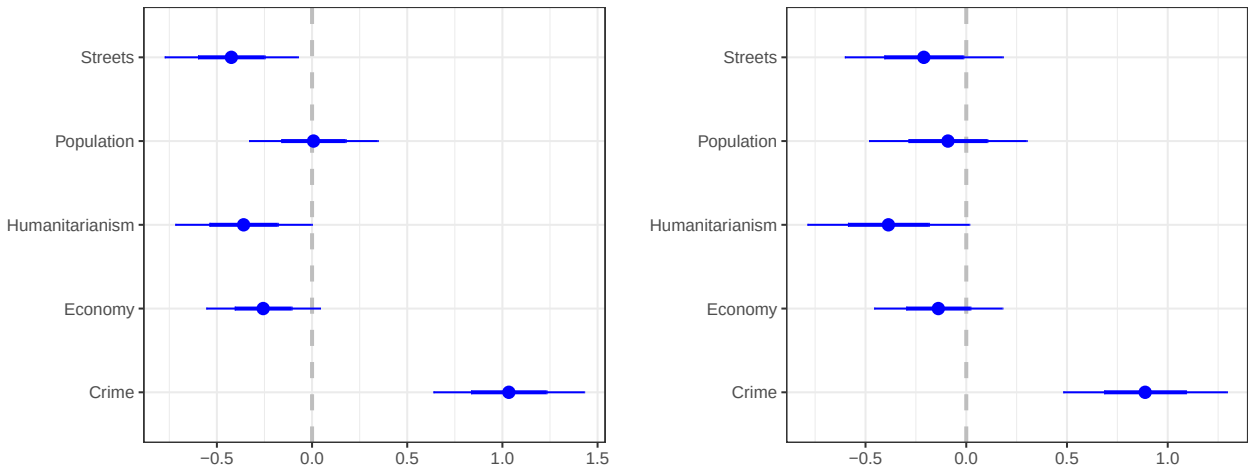
Next, the respondent are asked to evaluate what *changes* their experiences of 2015 induced in their attitudes to immigration and asylum seekers. The options are opinions a) staying the same b) becoming more positive c) become more negative. This items are there to ensure that the survey does not only capture current post-treatment values but also has a dynamic dimension. After this the survey contained an item that measured the respondent's level of interactions with the asylum seekers, from none to befriending them. This question was purposefully asked

last, in order to use this variable as a measure rather than a treatment manipulation. Other options included seeing them in the streets, knowing someone who was friends with them, volunteering, knowing people who worked with them and an option to state some other form of interaction. While previous comparable studies have mainly studied contact by using the fact that asylum seekers stayed in these places for longer, this study isolates contact by directly asking the respondents about the nature and the intensity of the contact.

The structure of the survey in which the questions concerning immigration in general came first followed by questions about the refugee arrivals manage to isolate the effect of the 2015 refugee crisis from general immigration attitudes. This clear distinction of refugee and immigration attitudes post 2015 does not yet exist in the literature. I hypothesize that possible treatment effects should be more visible in the second battery of questions as the 2015 refugee crisis is clearly related to outcome (attitudes to *asylum seekers*) and the respondents are encouraged to think about their own personal experience of the matter. However, an independent set of questions regarding general immigration attitudes gives us information about the possible spillover effects of experiences from asylum seekers on general support or opposition to immigration.

4 Results

I begin the empirical evaluation by running the regression specification above. I first estimate the raw effect without covariates and in the second model I incorporate the municipality-level covariates that showed imbalance in treatment assignment.



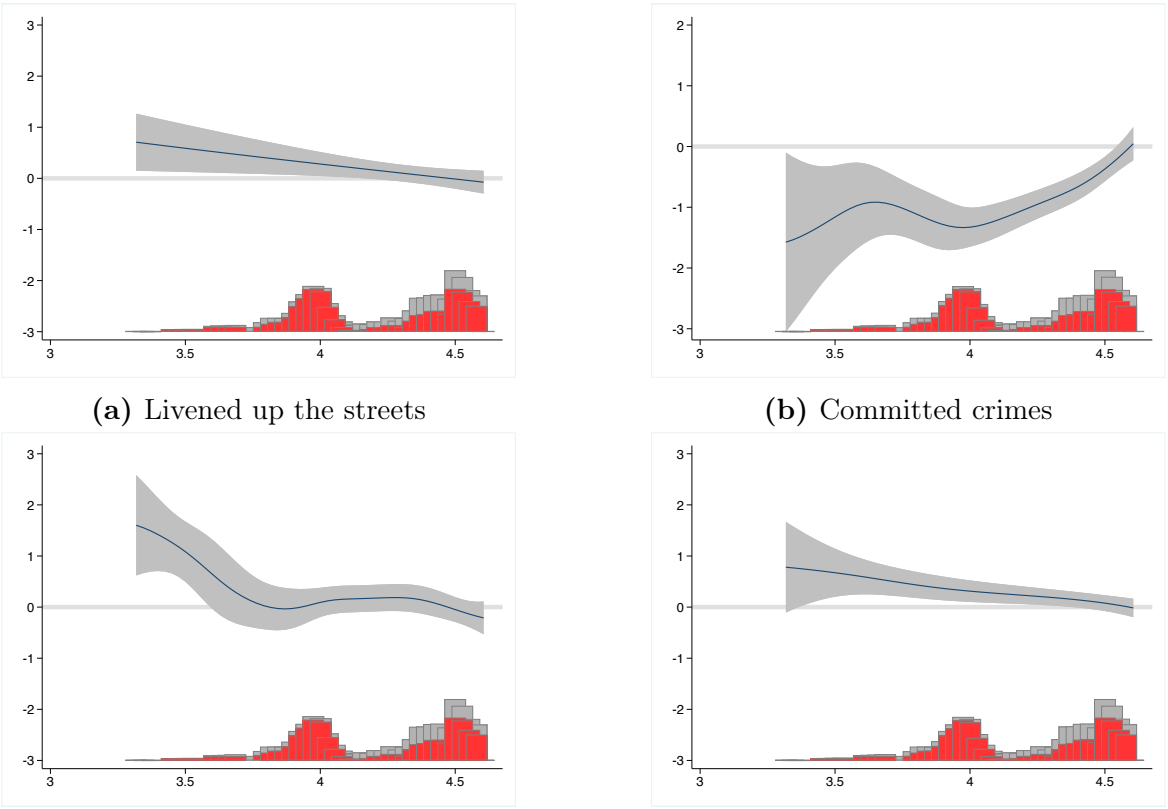
(a) Without covariates **(b)** With covariates

Figure 2: Coefficients for the interaction between receiving asylum seekers in 2015 and residing in an urban municipality. Scale of response 1 (Fully disagree) – 5 fully agree). Thick lines indicate the 90% confidence intervals and the thin lines the 95% confidence intervals with clustered robust standard errors. Only those respondents included who have resided in the same municipality since 2015.

We can see from the above graphs that there are differences in reacting to asylum seekers in rural and urban municipalities: one variable that stands out clearly in its magnitude and statistical significance is the statement of asylum seekers committing crimes. Here a clear break exists between rural and urban respondents: urban respondents who hosted asylum seekers are one standard deviation[6] more likely to agree with asylum seekers committing crimes than rural respondents who hosted asylum seekers. The arguments of asylum seekers livening up the streets, giving the residents a chance to fulfill their humanitarian duties and boosting the local economy all get less agreement in urban than in rural areas, although these effects are smaller and their significance is and more vulnerable to including covariates. Boosting population numbers in the municipality does not meet with agreement in either group of respondents.

However, the fact that municipality-level covariates have an effect on the results indicate that the characteristics of the municipality might be leading to heterogeneous treatment effects. As these covariates showed perfect balance in rural areas but were somewhat imbalanced in towns,

[6]The standard deviation to this question is 1 in the control groups.



(a) Livened up the streets

(b) Committed crimes

(c) Chance to be humanitarian

(d) Boosted the local economy

Figure 3: Local predicted marginal effects of housing asylum seekers across the spectrum of urban density on statements regarding (a) asylum seekers livening up the streets (b) committing crimes, (c) giving us a responsibility to exercise out humanitarian duties, and (d) boosting the local economy. 95% confidence intervals denoted by gray areas. Only those respondents included who have resided in the municipality since 2015.

their inclusion might cloud the estimates of the overall effect. Instead of grouping all rural and all urban areas into one, I next turn to examine the interaction effects across a continuous scale of urban density, which provides a more nuanced measure of urban density than the rough binary category of urban–rural areas. Using the methods advocated by Hainmueller, Mummolo, and Xu 2019, I estimate the local average effect across different levels of urban density rather than the average effect of different units.

Although the sample is designed to be representative across the spectrum of urban density,[7] it illustrates a clear pattern in which the less urban a municipality gets, the more positively

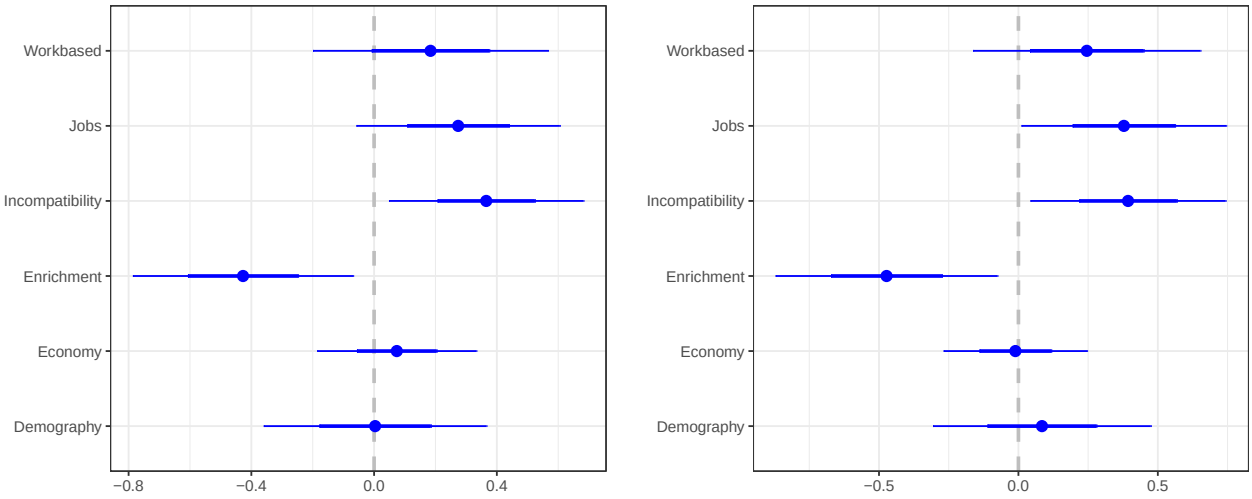
[7]Covariates are dropped from these analyses because the continuous measure of urban density is heavily correlated with other municipality-level features, thus leading to the problem of multicollinearity.

its inhabitants react to asylum seekers. Rural respondents report less crimes and the smaller and less significant coefficients of Figure 2b demonstrate a pattern in which rural respondents think more that asylum seekers helped the local economy, livened up the streets, and served as a possibility to help others.

All these models are based on samples that only include people that have resided in the sample municipality since 2015, in order to make sure that all respondents answer with the experience in mind that the model supposes they have. Figures B1 in the appendix show that when including those in the sample that have lived in the municipality for less than five years the coefficients remain similar, but grow in statistical significance, presumably because of the bigger sample size. This could mean that people who moved later heard about the positive experiences and this shaped their answers, along the findings of Christ et al. (2014) or that people moved from areas with similar experiences of asylum seekers.

Next, I examine if these experiences in 2015 affected the respondents' assessment of immigration in general. In the following figures I perform the same regression but this time the outcomes are a series of statements regarding preferences for immigration. All respondents think similarly about the need for work based immigration, immigration boosting the Finnish economy, and Finland's shrinking population needing immigration.[8] The differences arise in questions assessing the impacts of immigration: urban people with experience of housing asylum seekers agree slightly more with the statements that immigrants steal natives' jobs, think of immigrants less as a cultural enrichment, and agree more with the statement that immigrants outside of the western hemisphere will never integrate in Finland.

[8]The mode in these answers is consistently moderately agreeing with the benefits of immigration.



(a) Without covariates **(b)** With covariates

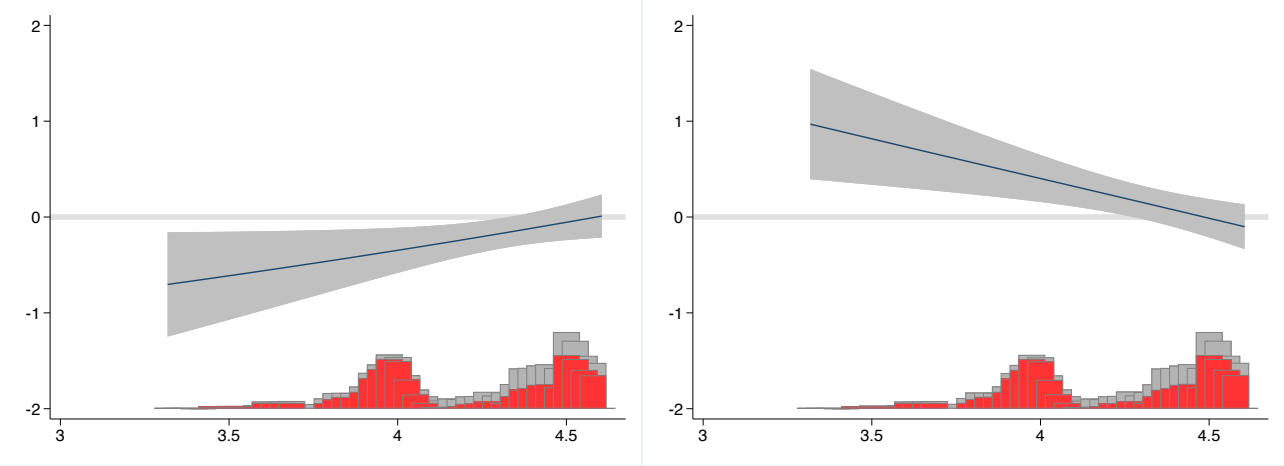
Figure 4: Coefficients for the interaction between receiving asylum seekers in 2015 and residing in an urban municipality. Scale of response 1 (Fully disagree) – 5 fully agree). Thick lines indicate the 90% confidence intervals and the thin lines the 95% confidence intervals with clustered robust standard errors. All respondents.

These results suggest that positive experiences of asylum seekers in rural areas have a spillover effect to thinking more optimistically about immigration. In areas where asylum seekers are less associated with crime, in this case rural areas, respondents are also more optimistic about their integration and think of them as an enrichment. In addition, the difference in agreeing with immigrants stealing natives' jobs might speak for the population shortage rural areas have, where workforce would be welcome.

Whereas in the first battery of questions I only included those respondents that lived through the whole reception process, in the battery regarding immigration I included all respondents because I treat immigration preferences as more constant and solid then personal experiences of the happenings of 2015. The battery of immigration-related statements came before reminding the respondents of the happenings of 2015, so the survey respondents were not even encouraged to think about immigration in relation to asylum seekers – immigration in is purely a post-treatment outcome. However, as Figure B2 in the Appendix B shows, when dropping from the sample those who moved to the location later, the coefficients remain by and large the same, only dropping slightly in significance presumably because of a drop in sample size.

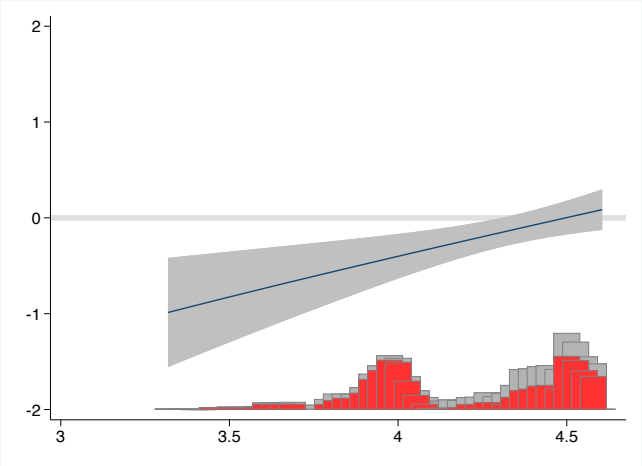
The marginal effects in Figure 5 show that the difference in attitudes to immigration in receiving urban areas stems from rural areas becoming systematically more optimistic as the level of urban density decreases. As the respondent's municipality gets more rural, the likelier they are to think that immigration enriches Finnish culture, and the less likely they are to think that immigrants steal natives' jobs and are incompatible with Finnish culture even if they are outside of the Western culture.

Interactions regarding attitudes to immigration



(a) Steal natives' jobs

(b) Immigrants enrich culture



(c) Immigrants culturally incompatible

Figure 5: Local predicted marginal effects of housing asylum seekers across the spectrum of urban density on statements regarding (a) immigrants stealing natives' jobs (b) immigration enriching Finnish culture, and (c) immigrants outside of the West being incompatible with Finnish culture. All respondents included. Areas shaded in gray denote 95 % confidence intervals.

However, one might argue that as the different categories are not randomized experimentally

by the researcher, but occurred by policies in 2015, these results could be driven by self-selection: citizens opted in rural areas to receive asylum seekers, and thus consistently respond to the survey items more favorably. To this end I deploy the dynamic measure in the survey item, the self-reported change in attitude towards asylum seekers and immigration as a result of the experiences in 2015. Table B2 in Appendix B sums up the percentages of rural and urban respondents in treated and non-treated areas who state that their opinion on asylum seekers either stayed the same, became negative, or became positive. Rural receiving areas really stand out from all the rest of the areas with more than double the share of respondents changing their stance to become positive (13% vs. 5% in all other area types) whereas the share of respondents developing a negative attitude is respectively lower in receiving rural areas (19% vs. 26% - 28% in all other areas). However, consistently across all categories the highest share of respondents did not change their minds. Negative shifts are the second most popular response in all categories and positive shifts are a minority. If positive shifts are so rare, it is a remarkable finding that rural receiving areas portray such higher shares of it than any other category.

To some extent these reactions could stem from perceiving the positive effects asylum seekers had on the local economy, as demonstrated in Figure 2, or they could be driven by the important difference between perception of crime. However, more contact between natives an asylum seekers in rural areas could also account for these differences. Next, I turn to test these different explanations for the results at hand.

5 Mechanism

Existing literature points us towards two ways of explaining these positive reactions to arriving asylum seekers. One is that there is more contact between natives and asylum seekers in rural areas or that asylum seekers help the local industries. In what follows, I make explicit tests to assess these mechanism by regressing the outcomes first on the nature of contact and then on different occupational groups. Moreover, literature connects anti-immigration opinions with concerns over crime, and to this end I include specific tests for this mechanism, too.

5.1 Contact

The smallness of some receiving municipalities would let us hypothesize that there is increased and more meaningful contact between arriving asylum seekers and the natives. However, existing literature is not unanimous about this: Dustmann, Vasiljeva, and Piil Damm (2018) and Barone et al. (2016) both argue that the contact in urban areas are more meaningful and prone to positive interactions. Andersson and Dehdari (2020) argue that contact mainly happens in the workplace, but as big offices with a large workforce are not common in rural areas, it is not clear if work place contact is the driving force either. Steinmayr (2020) advocates for contact theory in rural areas in Austria, but he only compares rural areas to rural areas, thus disabling direct comparison between rural and urban types of contact.

A basic comparison of percentages of respondents reporting different levels of contact with asylum seekers in rural and urban areas that received asylum seekers is the following:

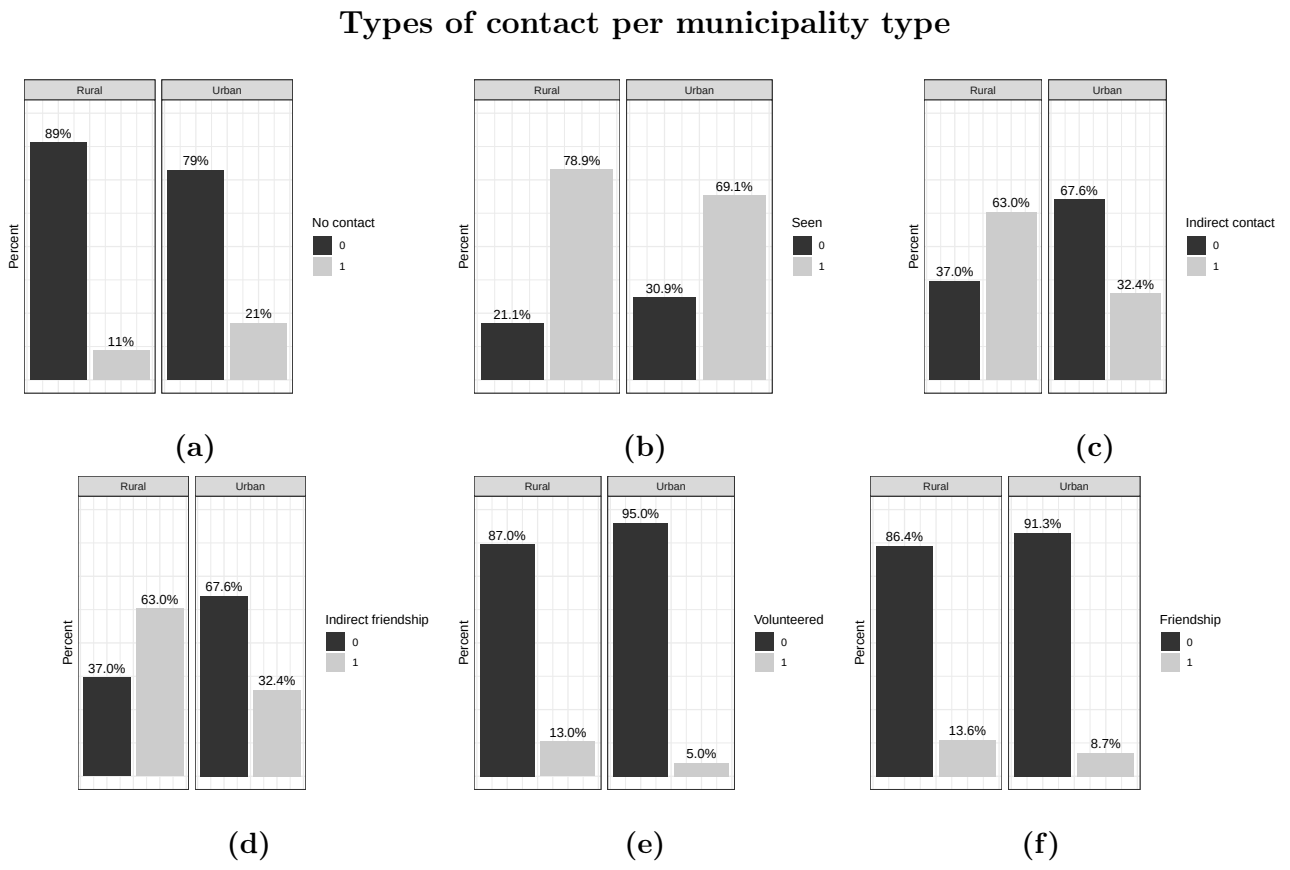


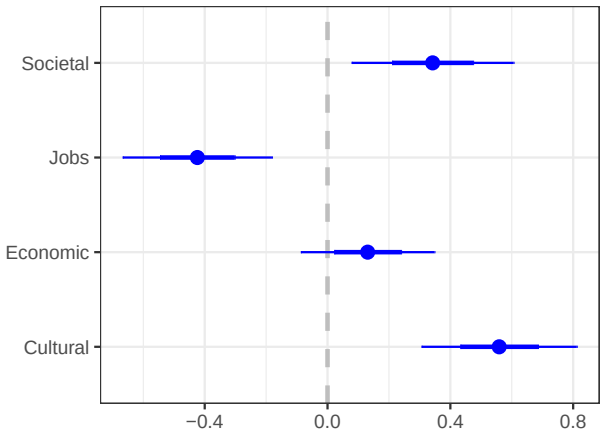
Figure 6: Shares of respondents reporting a) no contact b) seeing c) indirect contact d) indirect friendship e) volunteering f) friendship with asylum seekers. Treated areas only. The value of 0 (black) means no such type pf contact, 1 (gray) means the respondent had such contact.

According to these numbers contact is systematically more frequent between natives and asylum seekers on all levels, from seeing them in the streets to befriending them. Next, I turn to assess how these different forms of contact affect respondents preferences on immigration in general and personal experiences of asylum seekers. I create a variable called "the positive societal effects of immigration" which takes a higher value on the scale from 1–5 if the respondent supported immigration to make up for demographic losses or if the respondent disagreed with all other forms of immigration, apart from work-based immigration, being detrimental to Finland. I also create a variable called "the positive cultural effects of immigration" which takes a higher value on the 1–5 scale if the respondent disagreed with the cultural incompatibility of immigrants outside of the western culture or if the respondent agreed with immigration being a cultural enrichment. All these recodings follow the original 1–5 scale of the survey question. To examine the fear of losing natives' jobs to immigrants I keep the original statement "Immigrants take natives' jobs" and to check for support for work-based immigration I retain the original statement "Work-based immigration boosts the economy".

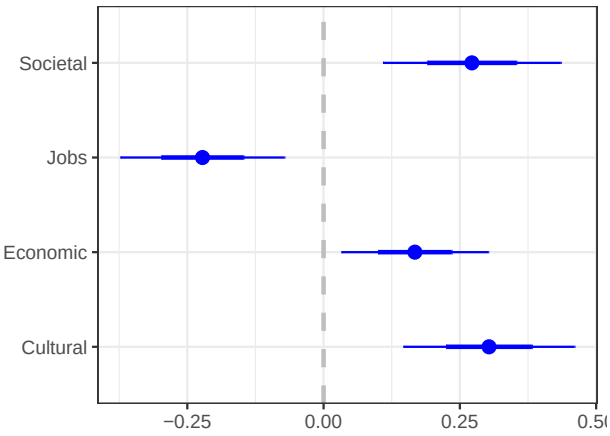
Figures show that all of these forms of contact, apart from seeing asylum seekers in the streets, leads to more positive sentiments towards immigration. Seeing asylum seekers in the streets does not seem to affect immigration preferences, if anything, it lowers agreement with their societal benefits. Contact appears to also decrease the fear of losing jobs to immigrants. While economic assessments are less responsive to contact as an explanation, the clearest outcome is a systematic difference in cultural assessments, which are more favorable after some sort of meaningful contact. As seeing asylum seekers was by far the most common way of contact in urban areas, while other types of interactions were much less frequent than in rural areas, we can draw the conclusion that a lack of meaningful contact explains the systematic differences between rural and urban inhabitants.[9]

[9]Somewhat surprisingly, indirect friendship seems to have a larger effect than direct friendship. The difference in coefficients is likely to stem from the fact that a greater number of number of people reporting indirect contact than direct contacts.

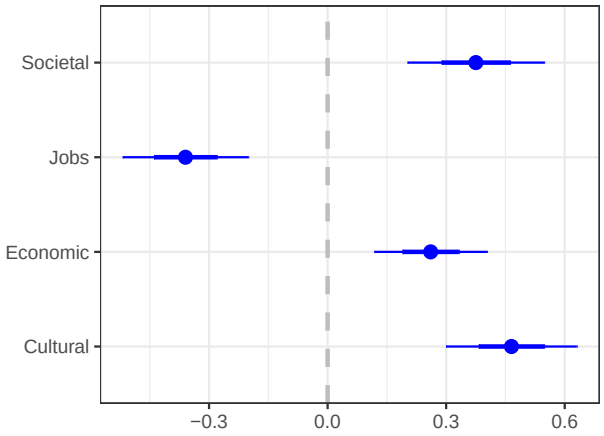
How level of contact affects immigration attitudes



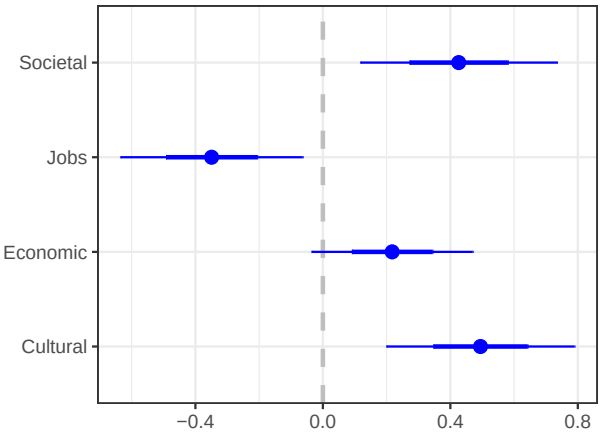
(a) Friendship



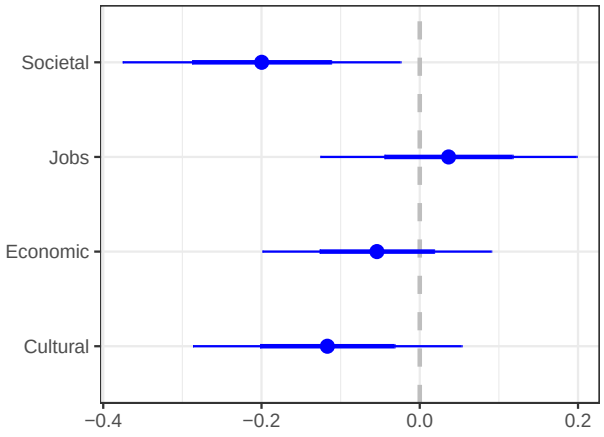
(b) Indirect contact



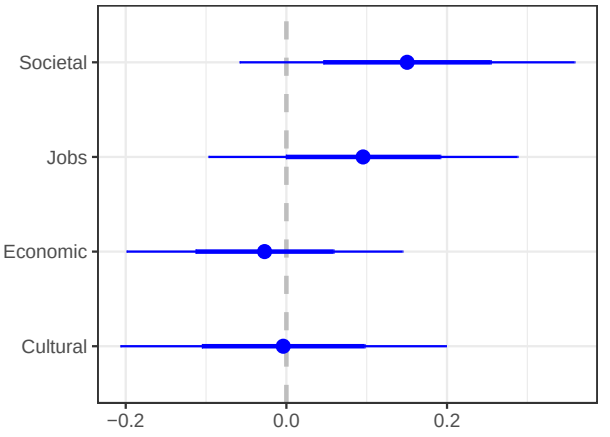
(c) Indirect friendship



(d) Volunteering



(e) Seeing in the streets



(f) No contact

Figure 7: Regressions for different levels of contact and preferences for immigration. Different immigration preferences are: 1. Belief in positive societal effects for immigration 2. Belief that immigrants steal natives' jobs 3. Belief in work-based immigration boosting the economy 4. Belief in the cultural compatibility of immigrants. All respondents, n=976

Figure C1 in Appendix C shows regression coefficients for regressing experiences of asylum seekers on the level of contact. Strikingly, in most cases just seeing asylum seekers is indistinguishable from having no interaction with them, and these levels of contact are associated with more negative experiences of them. All other levels of contact, be it direct or indirect, lead to more positive evaluations of them.

However, these estimates are marred by self-selection: those already more favorable were more likely to volunteer and form friendships. Thus, another way to examine this is how different levels of contact affected the change of people's opinion of asylum seekers and immigration. From Figure 8 we can see that when examining change as a continuous variable, with 0 being no change, -1 being negative and 1 being positive, volunteering has the largest coefficient, followed by friendship, indirect friendship, and indirect contact. Those areas where people volunteered in greater numbers, in this case rural municipalities, saw the largest share of people also updating their opinion on asylum seekers to be more positive. This goes to show that activities with a lower entry threshold than friendship can also contribute to opinion change.

Change in attitudes to immigration and asylum seekers as a function of contact

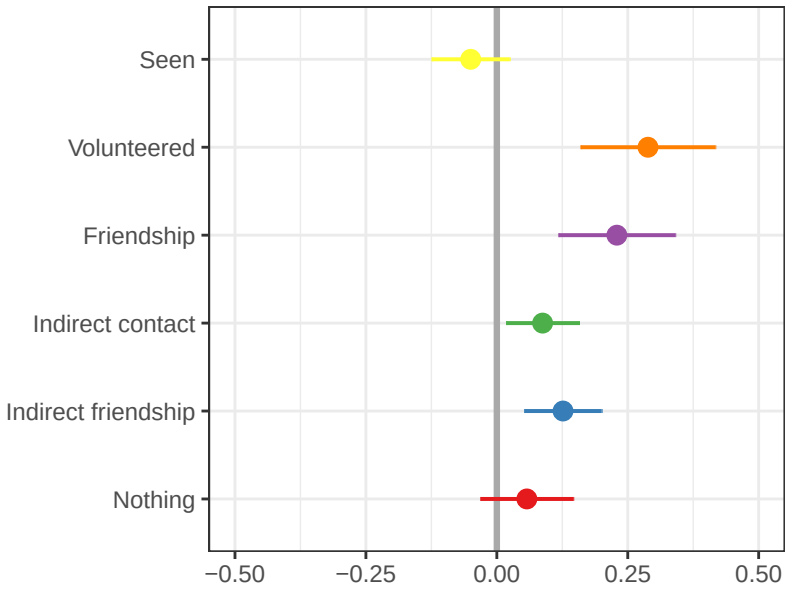


Figure 8: Estimates for linear regression of change in asylum seeker attitudes (continuous scale of -1 to 1) on nature of contact, n=975

All in all, there is evidence to believe that a) reactions to asylum seekers are more favorable

among people who have some contact, even indirect, with asylum seekers and b) these contacts are more likely to happen in rural areas than in urban areas.

5.2 Sociotropic evaluations

Table C2 in Appendix C sum sup how ten different groups of professions think about immigration at the base level, without being reminded about locally receiving asylum seekers. These responses confirm standard patterns in the labor market literature according to which the manual, uneducated workforce (employees) and unemployed people have less favorable evaluations of immigration whereas white collar employees (clerks, managers, and experts) are more supportive. Interestingly, farmers portray consistent negative opinions about immigration whereas entrepreneurs tend to agree with the economic benefits of work-based immigration. Students, homemakers and pensioners, as people outside of the workforce, portrayed no discernible patterns.

Based on the findings of this baseline regression, I perform further analysis on theoretically relevant groups: the unemployed, the white- and blue-collar workers, as well as the empirically relevant groups of farmers and entrepreneurs. This is because the literature tends to focus on white and blue collar workers and people on benefits (the unemployed), but farmers and entrepreneurs might have their own reasons to update their preferences based on their personal experience of receiving asylum seekers and these might contribute to understanding differences in urban and rural areas. Did exposure to asylum seekers affect the way different professions see immigration?

Unfortunately the sample is not large enough to perform reliable sub-group analysis between different professions. However, Table C1 in Appendix C shows the distribution of different professions in rural and urban areas: most professions are evenly distributed, with the notable exception of farmers coming from rural areas only. In addition, rural areas have a larger share of blue collar workers and urban areas have a higher share of unemployed people. If we manage to establish if being exposed to asylum seekers makes a difference in how different professions see them, then knowing how common these types of profession are in rural and urban areas might give some indication if different professions matter in different evaluations of asylum

seekers.

To this end, I take the three survey items that are explicitly concerned with the economic aspects of immigration and regress them on different occupational categories, interacted with receiving asylum seekers. These items are "Work-based immigration boosts the economy.", "Immigrants take Finnish jobs", and "The asylum seekers had a positive economic impact." These interactions show that entrepreneurs think more of work-based immigration as an an economic boost than their non-treated counterparts, while receiving asylum seekers makes white collar workers agree with this less than their non-treated counterparts. This might be because clerks in administration are the ones managing the costs of reception. Interestingly, blue collar workers think more positively of work-based immigration in treated than in non-treated areas. The largest coefficient comes from farmers, among whom receiving asylum seekers shifts the belief that asylum seekers boosted the local economy by almost a standard deviation (the standard deviation in the control group is 1).

Table 1: Interaction coefficients for different groups of professions and attitudes to the economic effects of immigration. Clustered standard errors in parentheses. All respondents.

Profession	Immig. boosts economy	Take jobs	Asl.seekers local econ. boost
Entrepreneur	0.691*	−0.217	0.134
	(0.333)	(0.401)	(0.429)
Farmer	0.670	−0.319	0.930*
	(0.611)	(0.700)	(0.334)
Blue collar	0.691*	−0.217	0.134
	(0.333)	(0.401)	(0.429)
White collar	−0.315*	0.269	0.047
	(0.129)	(0.170)	(0.1446)
Unemployed	0.436	−0.008	0.165
	(0.322)	(0.383)	(0.391)
N	976	976	960

*=$p < 0.5$

For farmers the local economic boost is obvious, as the agricultural sector is continuously

reporting worker shortages in Western Europe. One farmer survey respondent stated in the open-ended section of the survey that they gave jobs to asylum seekers. For entrepreneurs local asylum seekers could mean more clients or new source of labor. Why blue-collar workers would respond positively to the economic impacts of asylum seekers is harder to establish, as previous literature is in agreement about the challenges arriving cheap labor poses to manual workers.

All these occupations –farmers, blue-collar workers, and entrepreneurs– are more represented in rural areas than in urban areas. As contact was more likely to happen in rural areas than in urban areas, it might be that all these effects, especially among the farmers that only exist in rural areas, are driven rather by contact than economic benefits. However, before concluding that the more positive evaluation amongst blue collar workers is due to the higher share of them in rural areas, it is important to note that unemployed people show no difference across groups of anayalis, so if contact matters more than the labor market position, then it should affect unemployed people, too, which is not the case.

In order to test whether economic assessments of immigration and asylum seekers correlate with other, non-economic assessments, I regress these professional groups on all remaining immigration items.

Figure 9 shows that while the economic assessment of farmers and white collar workers do not spill over to other sociotropic evaluations of them, there are still some effects for blue collar workers and entrepreneurs, who agree more in receiving areas about the societal benefits of immigration. Profession does not have an effect on agreeing with the cultural compatibility of immigration, which is an important deviation from contact, which especially correlates with cultural assessments of immigration. In short, although the estimates rely on small sample sizes and it is hard to disentangle the effects between rural and urban areas, it looks like citizens evaluate the economic impacts of immigration somewhat through their occupational lenses, whereas the cultural effects stem from the nature of contact they had with asylum seekers.

Figure C2 in Appendix C examines if these different occupation groups respond to asylum seekers in the municipality differently. The results are largely null, with the exception that blue collar workers, entrepreneurs, and farmers agree less with the statement that asylum seekers committed crimes, which is in line with the general difference between the experiences of rural

Occupation, receiving asylum seekers, and immigration opinions

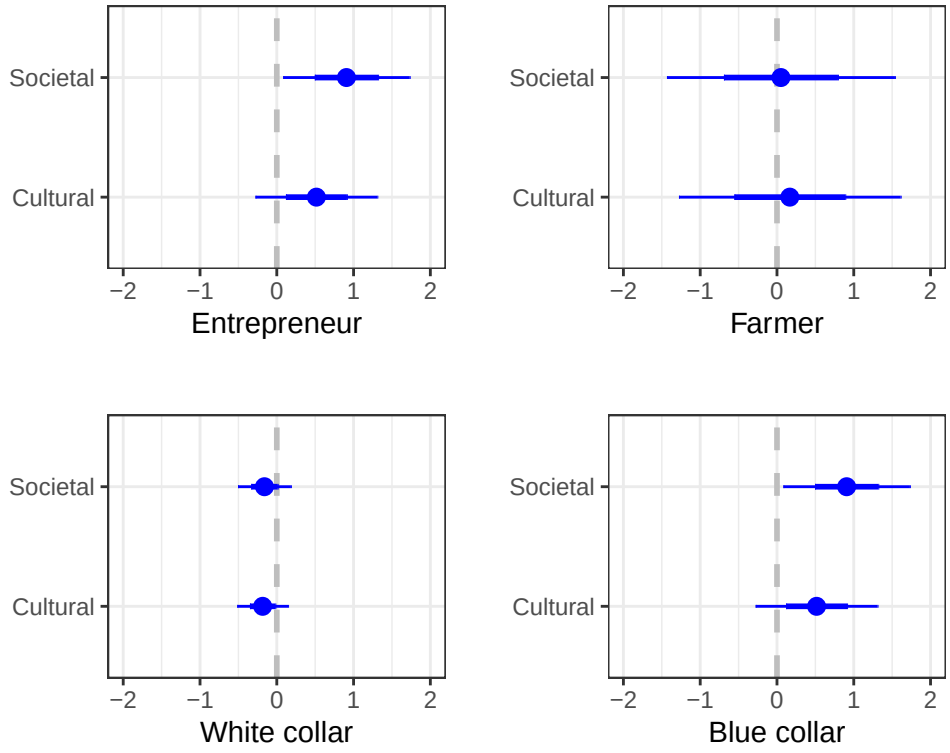


Figure 9: Estimates for linear regression of agreeing a) on the societal benefits of immigration and b) cultural compatibility of immigrants (continuous scale of 1 to 5) on the interaction between type of occupation and receiving asylum seekers, n=976

and urban areas. This leads to a third possible mechanism: that all of the above results are driven by lower levels of crime in rural areas.

5.3 Crime

Seeing what a strong difference crime is between rural and urban respondents in receiving areas, a question to ask is if there really was more crime in urban receiving areas.[10] To assess if crime really was an issue, I take all the reported offenses in 2016 (the year asylum seekers were most present across Finland) and break down the absolute numbers according to treatment status and municipality type. Table 2 sums up all the reported criminal offenses in mainland Finland, excluding the pre-treated municipalities that are excluded from the analysis throughout this paper, and presents the means of each category.

Table 2: Number of reported crimes in rural and urban treated and non-treated areas.

	Treated	Control
Number of crimes, rural	12,695	64,852
Number of crimes, urban	28,4155	15,4761
Mean/municipality, rural	577	559
Mean/municipality, urban	4,736	2,063

Source: Statistics Finland.

The average number of crimes reported in receiving urban municipalities is more than double when compared to non-receiving ones, whereas in rural municipalities there is hardly any difference between the two groups. It is not possible to say which of these crimes are committed by asylum seekers. However, even without knowing who committed the crimes, the awareness of higher levels of crime in the affected municipalities combined with the awareness

[10]Not all offenses are reported, and the police authorities stress that any examination of crimes is indicative. According to the analysis of the Finnish police (data not publicly disclosed), the vast majority of offenses are committed by natives, although asylum seekers are overrepresented in sexual crimes. (`https://yle.fi/uutiset/3-10541450` (visited on 09/17/2020)) There were some high-profile cases of sexual assault and murder committed by asylum seekers, which received a lot of media attention.

of the presence of reception centers could be enough to draw the conclusion of increased crime rates as a result of receiving asylum seekers in urban areas.

Are then the previous correlations between levels of contact and different occupational groups overwritten by less exposure to crimes? I test this by regressing all forms of contact and all different occupational groups on the respondents' perceptions of crimes committed by asylum seekers. If significant associations exist, then the different mechanisms cannot be disentangled. For example a farmer might be more favorable towards asylum seekers not because they were new labor force, but because they do not associate asylum seekers with crimes.

In Tables C3 and C4 in appendix C I perform these regressions and find no statistically significant associations between different occupations and perceptions of crime. However, meaningful contacts with asylum seekers correlate negatively with the claim that they committed crimes – the more a respondent knew them, the less they thought they committed crimes. This could either mean that contact and low level of crimes just happened in the same municipalities or that knowing them better decreased the otherwise widely spread assumptions that asylum seekers committed crimes. While disentangling lower crime levels from more contact is not possible, we can disentangle labor market arguments from levels of crime, hinting that these suggested mechanisms are independent.

5.4 Direct test of mechanisms

Finally, I test these three advanced mechanisms by regressing the continuous scale of change in opinion about immigration from -1 (negative change) to 1 (positive change) on the five listed types of experiences in question 6 of the survey, namely asylum seekers livening up the streets, committing crimes, giving a chance to exercise humanitarian duty, boosting local economy, and boosting local population numbers, and check which model comes out with the strongest coefficient and highest R squared. Table 3 sums up the coefficients and the outcome of each model. Results show that while economic reasoning has the largest coefficient, crime based reasoning has the largest R squared, explaining 18 % of the change in respondents' opinion about immigration and asylum seekers. The two mechanism are thus both very important, but not identical. However, also humanitarian reasoning and the perception of asylum seekers

livening up the streets are important. Only boosting population numbers can be discarded as a mechanism.

Table 3: Results for regressing opinion change of asylum seekers on experiences of them. DV: Opinion change (-1 – 1). Clustered standard errors in parentheses. Respondents from receiving areas only.

Mechanism	Coefficient	Standard error	R squared	n
Livened up	0.113***	(0.017)	0.07	630
Crimes	-0.173***	(0.018)	0.18	628
Humanitarianism	0.171***	(0.020)	0.15	617
Economy	0.188***	(0.022)	0.14	618
Population	-0.003	(0.024)	0.00	626

***=$p < 0.000$

6 Robustness

In additional robustness checks in Appendix D I make sure that these reactions are really driven by the as-if-random exposure to asylum seekers in 2015 rather than structural differences between receiving and non-receiving areas. In practice, I do this by regressing the outcome on interactions between receiving asylum seekers and a list of covariates that can be hypothesized to be confounders: Municipality population size and unemployment rate as well as previous shares of foreigners in the municipality. I also address the slight imbalance and representativeness of the sample with respect to Green and True Finns voters. The outcomes are not affected by these checks.

Finally, I conduct tests to see if treatment effects differ according to characteristics such as age, sex, profession and education. Age, education, and sex do not matter: the treatment effects are similar across these groups.

7 Conclusions

Research in social psychology, economics and political science have so far assessed natives' reactions to immigration by either assessing respondents reactions to their changing living environments (Christ et al. 2014; Enos 2014), natives' voting behavior as a reaction to demographic changes (Dinas, Matakos, et al. 2019; Vertier and Viscanic 2018; Edo et al. 2019; Dustmann, Vasiljeva, and Piil Damm 2018; Steinmayr 2020; Barone et al. 2016; Otto and Steinhardt 2014); Halla, Wagner, and Zweimueller 2017; Harmon 2018) or natives' value change (Hangartner et al. 2019; Schaub, Gereke, and Baldassarri 2019) as a response to refugee arrivals. Some of these papers research reactions to refugee arrivals, some to immigrant arrivals, or both, and with these differing outcomes, they also draw different conclusions and propose different mechanisms to explain these outcomes.

Therefore, this study departs from the point that all aspects of the examination of this issue need to be clearly defined. Not only the outcome needs to be clearly defined, but also what the receiving context is and how the receiving context contributes to heterogenous treatment effects. To this end, this paper set out to test the hypotheses that rural and urban dwellers respond differently to asylum seekers, and while doing so, sought to keep the outcomes of attitudes to immigration and evaluations of asylum seekers separate. Moreover, this study has also attempted to isolate as many counfounders as possible via the research design that only examined municipalities without previous activities of asylum seeker's reception centers to make sure that the arrivals were an exogenous shock. In addition, it made sure that the units of analysis were as comparable as possible on all observable characteristics. By isolating asylum seeker arrivals as a treatment, measuring attitudes to asylum seekers and immigrations separately, and measuring the exact nature of exposure and the change in attitudes, this paper has attempted to isolate exposure, context, outcomes, and mechanisms to disentangle what happens when local demographics change unexpectedly.

The results from this study manage to reconcile contradicting results in the literature. While Christ et al. (2014) argue that immigrant arrivals trigger positive sentiments in the receiving community even without direct interaction, Enos (2014) argues that just plain exposure to immigrants is enough to create hostile sentiments. This study supports both of these outcomes

and introduces a possible explanation as to why these differences emerge: in communities where immigrants contribute to the local socio-economic conditions, where contacts are easier to build, and where crime levels are low, even indirect contacts suffice to create more positive reactions. Contrastingly, in areas where interactions stay at the level of seeing the new arrivals, as in the latter study, if anything, sentiments become more hostile. Just seeing immigrants without any meaningful interaction with them is more likely to happen in urban areas that enable anonymity, which also correlates with higher levels of crime presumably for the same reason. When perceptions of crime happen simultaneously with higher crime rates, people develop negative sentiments about immigration.

Thus, this study has managed to reconcile various seemingly contradicting results in the literature. While most of the studies focusing on evaluations of refugee or immigrant arrivals or on electoral outcomes in the wake of demographic changes argue for increases in the anti-immigration sentiment, some studies, notably Steinmayr (2020) and Vertier and Viscanic (2018) argue for the power of contact in reversing these negative feelings. This study shows that although contact does work indeed, it only happens in rural receiving communities, whereas mere exposure happens in urban receiving communities. This is especially noteworthy as existing works argue that meaningful contacts, and economic gains of immigration, only happen in cities (Dustmann, Vasiljeva, and Piil Damm 2018; Barone et al. 2016) and that rural areas are negatively predisposed to immigration and asylum seeker arrivals. (Harmon 2018; Maxwell 2019)

Regarding the possible mechanisms that explain a more favorable reception to asylum seeker arrivals, this paper has managed to also test sociotrpic evaluations (Liao, Malhotra, and Newman 2020), cultural distance (Hainmueller, Hiscox, and Margalit 2015; Sniderman, Hagendoorn, and Prior 2004) and the labor market hypothesis (Mayda 2006; Malhotra, Margalit, and Mo 2013). As with mere exposure and contact, all of these hypotheses hold, but only in specific contexts: the fear of cultural distance from immigrants is mitigated by contact but strengthened by mere exposure. Some industries, notably farmers and entrepreneurs, react positively to the new workforce and clients when asylum seekers arrive, but some, notably the unemployed, evaluate them negatively in all circumstances.

Interestingly, positive experiences from asylum seekers, whether they are driven by positive economic evaluations of them or by meaningful interactions with them, spill over to immigration general. Therefore, assessments of asylum seekers and immigration run in parallel, or at least, assessments of immigration are based on personal experiences of foreigners in living context.

Most crucially, this study hopes to question to consensus about rural areas being inherently hostile to all forms of immigration and take into account the possible value changes that the post 2015 demographic changes have created. Whereas rural areas might have been more hostile to immigration before they had personal experiences of them, this study shows that rural dwellers are also ready to update their immigration attitudes to be more favorable, at least more so than urban dwellers.

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8 Appendix A: Sample balance and representativeness

Table A1: Randomization check in the sample: balance on key covariates between receiving and non-receiving respondents. Covariates divided into urban and rural respondents.

Variable	All	Treated	Control
Age, rural	53.54	54.36	52.26
Age, urban	52.56	52.44	52.77
Women, rural	46.78	46.74	46.86
Women, urban	40.19	37.32	45.31
Higher educ., rural	13.53	11.96	16.00
Higher educ., urban	27.29	28.28	25.52
Polytechnic educ., rural*	13.08	10.51	17.14
Polytechnic educ., urban	13.46	15.45	9.90
College degree., rural	13.30	11.23	16.57
College degree, urban	16.45	14.87	19.27
Baccalaureate, rural	10.86	10.51	11.43
Baccalaureate, urban	12.52	12.52	12.52
Vocational educ., rural*	30.82	36.23	22.29
Vocational educ, urban	19.81	18.37	22.40
Basic educ., rural	18.40	19.57	16.57
Basic educ., urban	10.47	10.20	10.94

Note: Means and percentages for all covariates, and treated and non-treated units respectively, for rural and urban areas. All values in percentages except for age, for which the mean is provided. Education refers to the highest obtained degree.

Note: *= Statistically significant difference in means ($p < 0.05$)

When examining the differences between rural and urban respondents, units portray very similar characteristics across treated and non-treated observations. The only differences are that treated rural areas are slightly less educated than their non-treated counterparts, with a smaller share of respondents educated in polytechnic schools and a larger share of respondents educated in vocational schools. As higher educational status tends to correlate with higher levels of tolerance towards asylum seekers, this educational discrepancy should make it even harder to

trace positive treatment effects. Although individual level covariates show reassuring balance on the whole, as a robustness check I include education at the individual level as a control and also check for heterogeneous treatment effects across educational groups.

On the whole, it is clear that urban areas are more educated than rural areas, but the research design incorporates these inherent rural-urban differences in the design.[11] While age is perfectly balanced across the groups, women are systematically somewhat underrepresented in urban areas, especially in treated urban areas. While the differences do not cross the conventional significance levels, it would be interesting to inspect how gender effects the treatment effects.

Unfortunately it is not possible to carry out similar balance checks for income, as the phone survey inquired personal income, whereas the panel survey inquired the household's total income. Thus, the values are not comparable. To overcome this obstacle, I have created dummies for each occupational group in the survey and inspected the differences between the groups. As is evident in the table below, the only difference between treated and non-treated areas is that treated rural areas were less likely to have expert-level employees as respondents, thus making the occupational status of the treated category in rural areas slightly lower than non-treated rural areas. Again, at the national level urban areas are more represented in the jobs requiring higher education, but as there are no statistically significant differences between treated and non-treated areas, it does not affect the internal validity of the research design. Taken together, the overall similarities in education and professions indicates that that there should not be consistent differences income-wise between rural and treated and non-treated units. For the comparable urban units, the balance on income is perfect.

[11] At the national level the mean age is about 10 years younger, but due to oversampling rural respondents the higher mean age in rural areas affects the overall sample.

Table A2: Balance on share of professions (in percentages) between receiving and non-receiving respondents. Covariates divided into urban and rural respondents.

Profession	All	Treated	Control
Unemployed, rural	4.21	2.90	6.29
Unemployed, urban	5.61	5.25	6.25
Student, rural	5.99	5.07	7.43
Student, urban	15.89	15.45	16.67
Homemaker, rural	1.55	0.72	2.86
Homemaker, urban	0.93	0.87	1.04
Manager, rural	4.21	4.71	3.43
Manager, urban	1.31	1.46	1.04
Expert, rural*	7.54	5.07	11.43
Expert, urban	11.40	11.66	10.94
Clerk, rural	8.20	6.88	10.29
Clerk, urban	13.64	13.41	14.06
Employee, rural	17.20	17.78	16.15
Employee, urban	25.06	24.28	26.29
Farmer, rural	2.88	2.90	2.86
Farmer, urban	0.37	0.00	1.04
Entrepreneur, rural	6.87	7.25	6.29
Entrepreneur, urban	4.11	5.25	2.08
Lower income, urban	37.94	40.82	32.81
Mid-income, urban	10.47	9.62	11.98
Higher income, urban	37.76	36.44	40.10

Note: *= Statistically significant difference in means ($p < 0.05$)

At the national level, the sample is more educated, older and more divided between high earners and low earners than the national reality. Due to the self-selection of more educated people to take part in surveys this is a standard bias. However, reassuringly, this bias does not carry on to the differences between treated and non-treated units. Although the sample is not representative, the votes cast in 2015 follow surprisingly closely the votes cast for the parties

in real life, with a slight over-representation of voters for the economically right-wing National Coalition (KOK) and the anti-immigration Finns' Party (PS).

Table A3: Share of votes for five biggest parties in Finland in the 2015 Parliamentary election, self reported vote in sample in vs. actual votes cast in 2015

Party	Sample	Reality
National Coalition, KOK	21.1	18.2
Center, KESK	19.3	21.1
Social Democrats, SDP	17.0	16.5
Finns' Party, PS	20.0	17.7
Greens, VIHR	10.0	8.5

However, again, what matters for this research is that there are no imbalances between urban and rural treated and rural non-treated areas, respectively. The table below demonstrates that by and large this holds, except for in treated rural and urban areas the support for both the anti-immigration Finns' Party and the pro-immigration Greens was lower in 2015. Rather than a systematic bias in political views, this is more likely to stem fro the fact that in small rural areas smaller parties, such as the Finns' and the Greens do not run candidates, or at least less than the mainstream parties, making the averages prone to idiosyncracies. The fact that both pro and anti immigration views get less votes is reassuring, as it shows that the preference for pro-immigration policies is not systematic. The imbalance in voters for the Greens in 2015 in treated urban areas could possibly indicate that areas with high levels of pro-immigration voters self selected to the treatment, but aggregate level vote shares in municipal elections show perfect balance in 2012. Rather than institutional and systematic reasons for opening reception centers in places with a high share of voters for the Green party, the imbalance is more likely to stem from treated areas being more populated and a higher share of foreigners, which correlates both with the treatment and support for the Greens. However, I will take into account these imbalances in robustness checks.

Table A4: Share of votes for five biggest parties in Finland in the 2015 Parliamentary election, self reported vote in sample in rural and urban treated and non-treated areas.

Party	All	Treated	Control
National Coalition, rural	10.64	9.42	12.57
National Coalition, urban	18.50	17.49	20.31
Center, rural	21.51	23.91	17.71
Center, urban	6.92	7.87	5.21
Social Democrats, rural	9.09	9.42	8.57
Social Democrats urban	14.39	14.58	14.06
Finns' Party, rural*	12.42	7.97	19.43
Finns' Party, urban	14.95	13.41	17.71
Greens, rural*	3.99	1.81	7.43
Greens, urban*	9.16	11.08	5.73

Note: *= Statistically significant difference in means ($p < 0.05$)

The table below demonstrates that at the aggregate, municipal level, treated and non-treated areas portray similar electoral outcomes, ruling out the assumption that units could opt out from receiving asylum seekers due to voting more for the anti-immigration Finns' Party or opt in by voting for the pro-immigration Greens.

Table A5: Share of votes for five biggest parties in Finland in the 2012 municipal elections in rural and urban treated and non-treated areas.

Party	All	Treated	Control
National Coalition, rural	13.21	14.56	12.98
National Coalition, urban	22.00	21.10	23.36
Center, rural	44.32	41.71	44.77
Center, urban	18.37	20.62	14.95
Social Democrats, rural	13.94	14.47	13.85
Social Democrats urban	22.05	21.68	22.62
Finns' Party, rural	13.00	13.64	12.90
Finns' Party, urban	12.14	12.27	11.93
Greens, rural	1.44	1.17	1.49
Greens, urban	6.03	6.07	5.97

Note: *= Statistically significant difference in means ($p < 0.05$)

9 Appendix B: Results

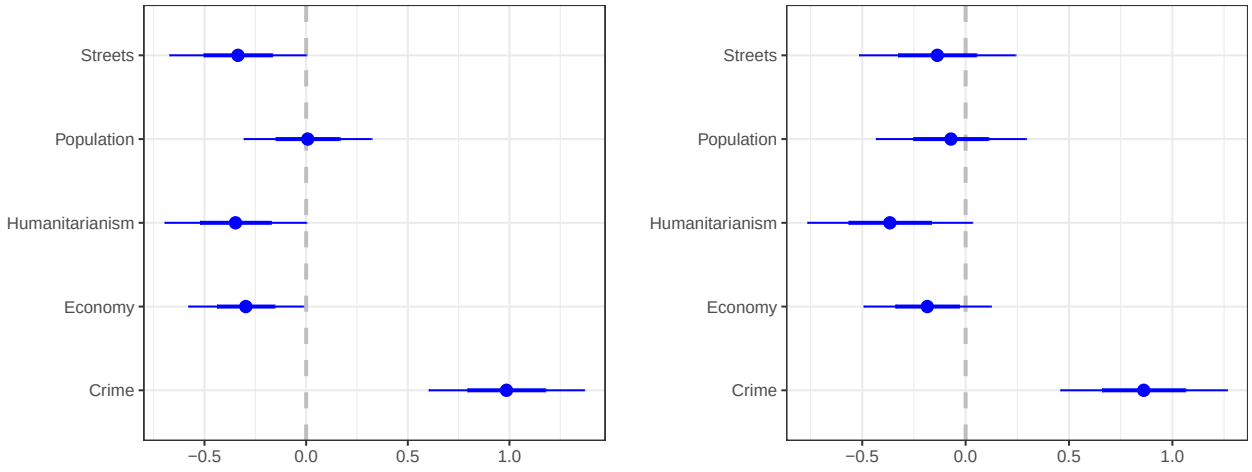
Table B1: Regressions for respondents changing their opinion regarding asylum seekers. Clustered standard errors in parentheses.

Asylum seeker arrivals × urban	Basic model	With covariates
Negative shift	0.103	0.094
	(0.073)	(0.072)
Positive shift	−0.068*	−0.040
	(0.038)	(0.043)
N	863	863

*=$p < 0.1$

Note: Those, who have not resided in the municipality since 2015 dropped from the sample.

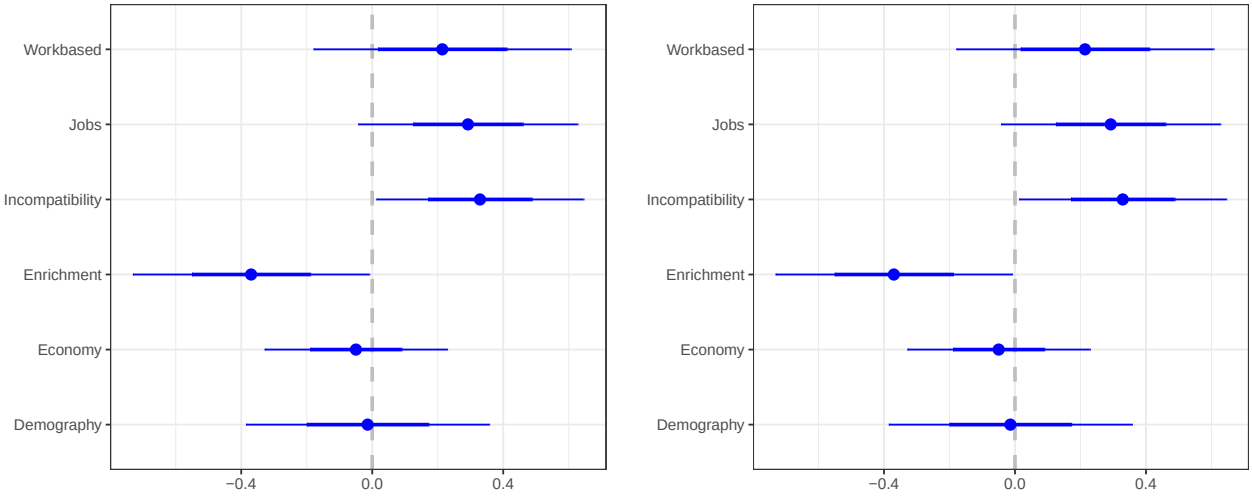
Attitudes towards asylum seekers, all respondents



(a) Without covariates **(b)** With covariates

Figure B1: Coefficients for the interaction between receiving asylum seekers in 2015 and residing in an urban municipality. Scale of response 1 (Fully disagree) – 5 fully agree). Thick lines indicate the 90% confidence intervals and the thin lines the 95% confidence intervals with clustered robust standard errors. All respondents included, not just those who have lived in the municipality since 2015.

Attitudes to immigration



(a) Without covariates **(b)** With covariates

Figure B2: Coefficients for the interaction between receiving asylum seekers in 2015 and residing in an urban municipality. Scale of response 1 (Fully disagree) – 5 fully agree). Thick lines indicate the 90% confidence intervals and the thin lines the 95% confidence intervals with clustered robust standard errors. Those, who have not resided in the municipality since 2015 dropped from the sample

Table B2: Share of respondents in four categories self-reporting change with respect to asylum seekers.

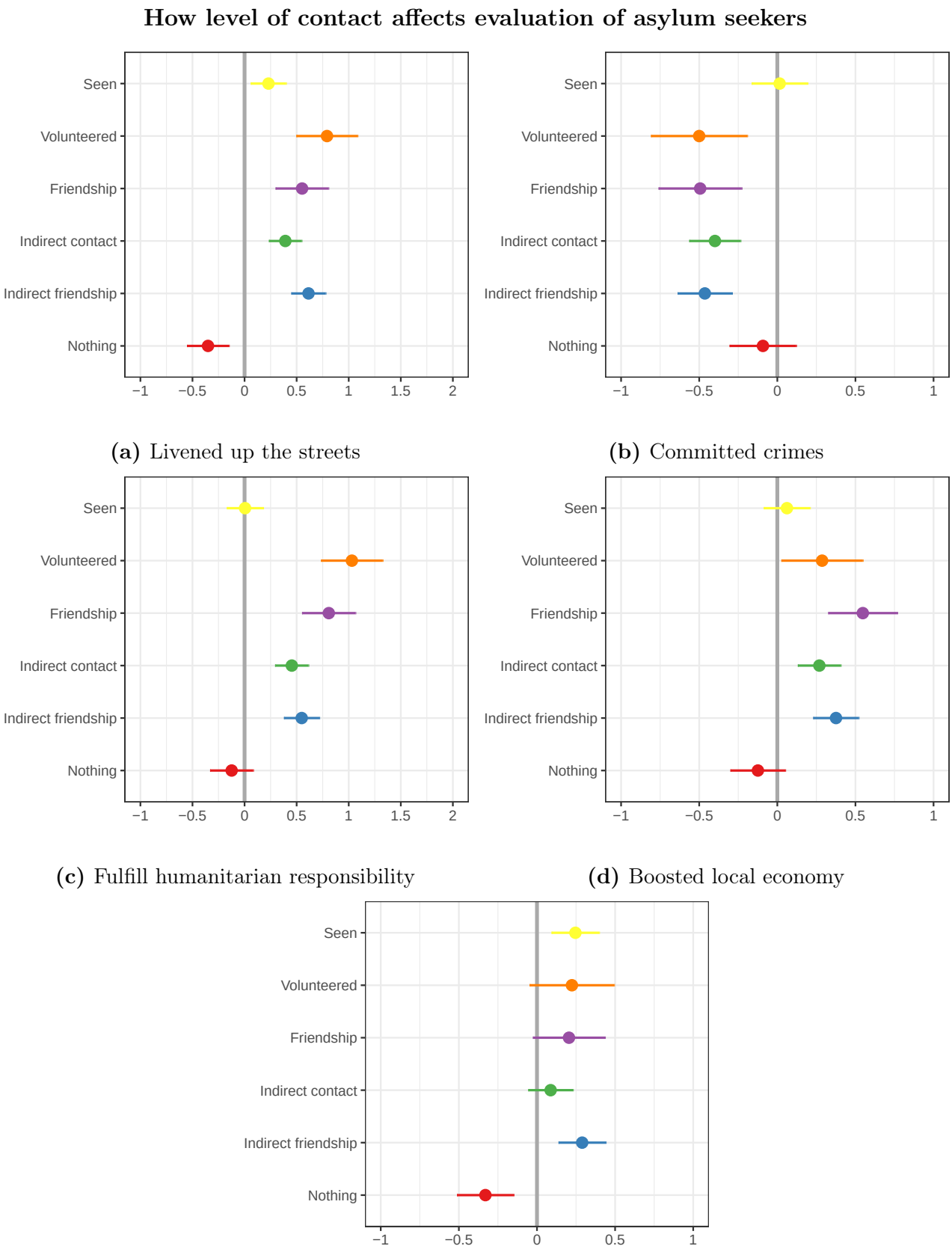
Stance shift	Urban, receiving	Urban, non-receiving	Rural, receiving	Rural, non-receiving
No change	67.12	68.48	68.52	67.48
Negative shift	28.81	26.67	18.52	26.02
Positive shift	4.07	4.85	12.96	6.50

Note: All values in percentages.
Note: Those, who have not resided in the municipality since 2015 dropped from the sample.

10 Appendix C: Mechanism

Table C1: Share of respondents in the sample reporting different professions in rural and urban municipalities.

Profession	Rural	Urban
White collar	40.80	42.24
Blue collar	6.87	4.11
Farmer	99.63	0.37
Unemployed	4.21	5.61
Entrepreneur	6.87	4.11
N	451	535



(a) Livened up the streets

(b) Committed crimes

(c) Fulfill humanitarian responsibility

(d) Boosted local economy

(e) Boosted local population

Figure C1: Regression for different levels of contact and assessment of asylum seekers. Different assessments are: 1. Asylum seekers livened up the streets 2. Asylum seekers committed crimes 3. Asylum seekers gave us a chance to practice our humanitarian responsibility 4. Asylum seekers boosted the local economy, and 5. Asylum seekers boosted the local population. All respondents, n=976

Table C2: Regressions for different types of professions in attitudes to immigration. Clustered standard errors in parentheses. All respondents.

Profession	Societal benefits	Economic Benefits	Take Jobs	Cultural
Entrepreneur	0.235	0.326∗	−0.222	0.099
	(0.188)	(0.142)	(0.167)	(0.179)
Farmer	−0.648*	−0.395	0.266	−0.754*
	(0.305)	(0.291)	(0.302)	(0.277)
Employee	−0.434*	−0.294*	0.151	−0.247*
	(0.088)	(0.102)	(0.100)	(0.100)
Clerk	0.059	0.077	−0.294*	−0.083
	(0.107)	(0.106)	(0.106)	(0.100)
Expert	0.260	0.203*	−0.314*	0.180*
	(0.137)	(0.087)	(0.112)	(0.127)
Manager	0.340	0.317*	−0.192	0.326
	(0.244)	(0.136)	(0.236)	(0.252)
Homemaker	−0.275	−0.005		−0.028
	(0.396)	(0.303)		(0.384)
Unemployed	−0.246	−0.218	0.695*	−0.062
	(0.218)	0.161	(0.187)	(0.224)
Student	0.220*	−0.003	0.121	0.179
	(0.101)	(0.111)	(0.305)	(0.107)
Pensioner	0.113	0.070	0.120	0.073
	(0.081)	(0.065)	(0.071)	(0.787)
N	976	976	976	976

*=$p < 0.5$

Experience of asylum seekers and occupation

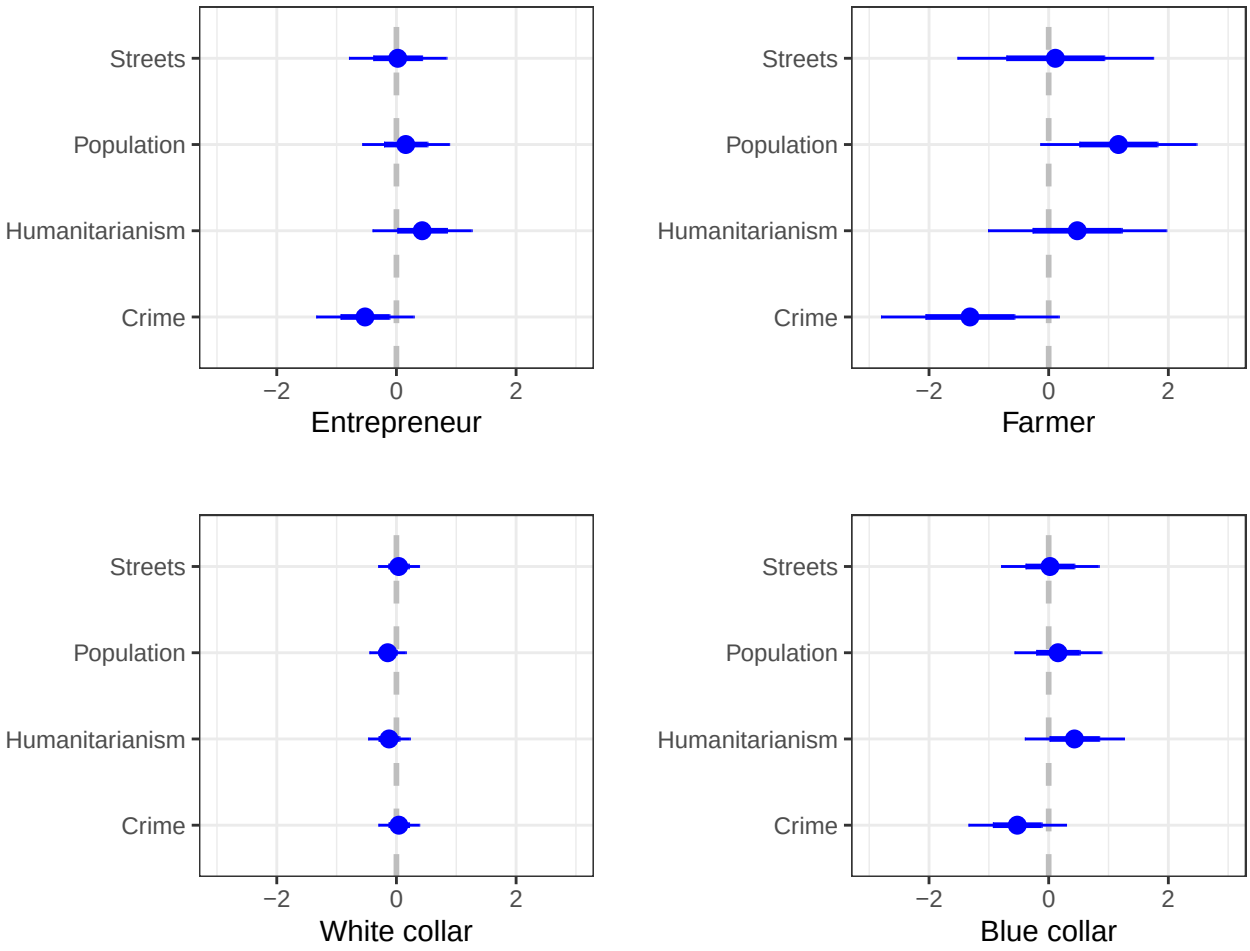


Figure C2: Regression coefficient estimates for linear regression of evaluation of asylum seekers (continuous scale of 1 to 5) on being exposed to asylum seekers and profession, n=976.

Table C3: Regressions for different occupations on perceptions on crime after receiving asylum seekers. Clustered standard errors in parentheses.

Profession	Coefficient	Standard error	n
Farmer	−0.579	(0.426)	638
Entrepreneur	−0.368	(0.218)	638
Blue collar	0.368	(0.218)	638
White collar	0.1878	(0.108)	638
Unemployed	0.457	(0.263)	638

*=$p < 0.5$

Note: Only treated areas.

Table C4: Regressions for different levels of contact on perceptions on crime after receiving asylum seekers. Clustered standard errors in parentheses.

Type of contact	Coefficient	Standard error	n
Nothing	−0.266	(0.143)	638
Seeing in streets	0.155	(0.121)	638
Indirect contact	−0.302*	0.106	638
Indirect friendship	−0.289*	(0.109)	638
Volunteering	−0.507*	(0.185)	638
Friendship	−0.514*	(0.166)	638

*=$p < 0.5$

Note: Only treated areas.

11 Appendix D: Robustness

In Appendix A a number of balance tests were concluded to establish balance between those municipalities that either housed or did not house asylum seekers in 2014 and the sampled respondents from these municipalities. The underlying assumption of the research design is that citizens could not affect the decision to establish a reception center in the municipality and thus any difference in their reactions to the arriving asylum seekers would stem from this

unexpected exposure in lieu of long held structural differences. As urban and rural areas are inherently different and people self-select to live in them, this assumption in conditioned on treated rural and non-treated rural areas sharing their characteristics and urban treated and non-treated characteristics sharing their characteristics.

As the performed balance tests suggest, urban municipalities that housed asylum seekers had slightly more population, higher pre-existing levels of foreigners, and slightly higher levels of unemployment. Whereas the balance was perfect at the municipality level in rural municipalities, there was a slight imbalance in respondent-level education levels in treated and non-treated municipalities. Thirdly, there was an over-representation of Green voters in both rural and urban treated groups in the sample as well as an over-representation of True Finns voters in the rural treated sample.

While the inclusion of all the covariates was not possible due to multicollinearity issues (these covariates correlate with population density) in the interactions, I here perform interactions for all these covariates to check if they are responsible for heterogenous treatment effects. I regress all these on the coutcome that consistently came out as the most powerful explanation for rural–urban differences in reactions, the claim that asylum seekers commit crimes and check if agreeing with this statement can be attributed to something else than the $treatment \times rural$ interaction.

First, I interact the treatment with both being an urban respondents and the level of education. This is to make sure that the higher share of educated people in rural treated areas does not explain the treatment response and is expressed by the following education:

$$Y_{ji} = \beta_0 + \beta_1 AsylumSeekers_i + \beta_2 Urban_i + \beta_3 Education_i + \beta_(4) Urban_i \times AsylumSeekers_i \times Education_i + \varepsilon_{ji}$$

The resulting coefficient is small (.085) and statistically insignificant ($p = 0.4$), so this imbalance does not invalidate the findings of this paper. Similarly, I insert a binary variable for a) being a Green voter and b) being a True Finn voter and check the results. The coefficients

are again, insignificant (p-values 0.1 and 0.8 respectively). On addition, just interacting the treatment with party support leads in both cases to weak and insignificant coefficients.

Next, I address the three imbalances that intervene in the as-if-random assumption in urban municipalities: existing share of foreigners, population, and share of unemployment. As these features do not show imbalance in rural areas, these can be only confounders in urban areas. Thus, I run a regression for the crime-related outcome in which I regress the outcome on an interaction between housing asylum seekers and these features, one at a time.

The following table sums up these coefficients:

Table D1: Robustness regressions for perceptions in crime on receiving asylum seekers interacted with crucial covariates in urban areas. Clustered standard errors in parentheses.

Model	Coefficient	Standard error
Asylum seeker arrivals × log.pop	0.256	(0.192)
Asylum seeker arrivals × share of foreigners	0.138*	(0.040)
Asylum seeker arrivals × share of unemployed	−0.042	(0.031)
N	459	459

*=$p < 0.5$

Note: Those, who have not resided in the municipality since 2015 dropped from the sample.

One coefficient, the pre-existing levels of foreigners in 2014 remains significant after this examination. Theoretically, it could be possible that higher pre-treatment shares of foreigners would lead to different reactions from having no experience of them. To address this, I re-run all the models in Section B by controlling for the pre-treatment share of foreigners. The estimates remain unchanged, only experiencing a slight drop in significance.

Attitudes to immigration as a function of experience from housing asylum seekers and residing in urban areas.

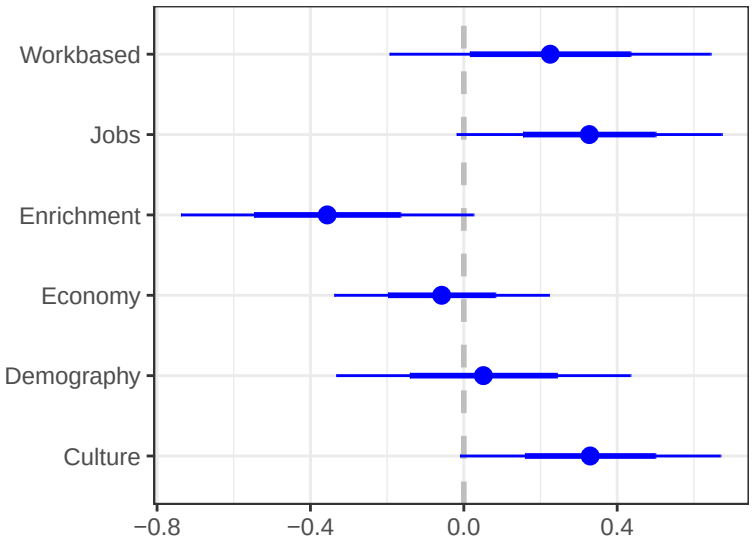


Figure D1: Regression coefficient estimates for linear regression of attitudes to immigration (continuous scale of 1 to 5) on being exposed to asylum seekers and living in urban areas, n=854,resident who have resided in the municipality for at least five years. Pre-treatment share of foreigners as a covariate.

Experience of asylum seekers as a function of housing them and residing in urban areas

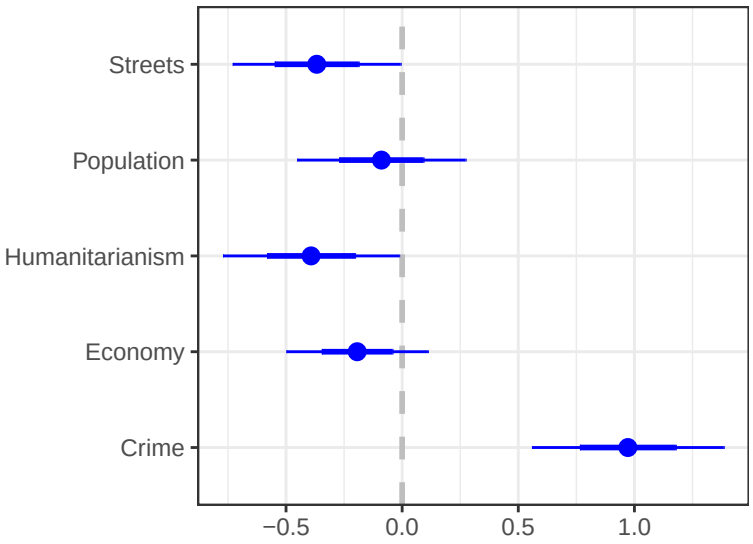


Figure D2: Regression coefficient estimates for linear regression of evaluation of asylum seekers (continuous scale of 1 to 5) on being exposed to asylum seekers and living in urban areas, n=854,resident who have resided in the municipality for at least five years. Pre-treatment share of foreigners as a covariate.

In the following table I perform regressions to find if there is a pattern in which groups react differently to asylum seekers. I test if there are heterogeneous treatment effects according to age, sex and education. As most coefficients were weak in magnitude and coefficients, it is hard to distinguish between general lack of significance and characteristic-related insignificance. There fore, I use the outcome that gives the clearest treatment effect coefficient, natives' perception of asylum seekers committing crimes. Table D2 sums up these variables and shows that age, education and sex do not lead to heterogenous treatment effects.

Table D2: Regressions for different characteristics for perceptions in crime on receiving asylum seekers, covariates interacted with treatment status. Clustered standard errors in parentheses.

Covariate	Coefficient	Standard error
Sex	−0.141	(0.145)
Age	0.001	(0.004)
Education	0.081	(0.051)
N	851	851

*=$p < 0.5$

Note: Those, who have not resided in the municipality since 2015 dropped from the sample.