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Local Political Contexts and Immigrant Integration

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Local Political Contexts and Immigrant Integration

by
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To Suzanne

ABSTRACT OF THE DISSERTATION

Local Political Contexts and Immigrant Integration

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Understanding the causes of immigrant integration is critical, as its failure can pose substantial economic and social costs for natives and immigrants alike. In this dissertation, I explore the role of local politics and immigrant demographics in explaining variation in immigrant integration across localities. In the first chapter, I develop a theory linking local politics to immigrant integration. Specifically, I argue that when local governing parties have anti-immigrant ideologies, integration becomes more difficult. I test this argument using data from refugees entering Denmark between 1986 and 1998. These refugees were spatially dispersed across Denmark's 275 municipalities, allowing me to identify the effect of local government. The second chapter investigates the role of intra-immigrant diversity in promoting integration. I argue that natives are less likely to negatively stereotype diverse groups of immigrants, reducing anti-immigrant attitudes and discrimination. Experimental and observational evidence support this argument. Experimentally, I conducted a conjoint survey on a sample of 2,130 Germans to show the link between diversity and anti-immigrant attitudes. Observationally, I use data on immigrant diversity and immigrant unemployment to show diversity's beneficial effect on integration. The final chapter examines natives' attitudes toward young immigrant men. Leveraging the same conjoint survey as above, I show that immigrant groups with many young men provoke substantial opposition. Further tests reveal that this opposition is due to the security and cultural threats provoked by young men. These findings have implications for our understanding of integration, of attitudes toward immigrants, and of the consequences of immigrant settlement patterns.

Chapter 1

Introduction

Substantial growth in the size of immigrant populations over recent decades has made the integration of these new arrivals a priority in many developed democracies. According to one classical definition, integration is the removal of barriers to equal and full participation in society (Kymlicka 1995). Successful integration, therefore, means that immigrants are able to participate equal to natives in social life, the economy, and the political system. These outcomes can enrich the society of the host country (Akay et al. 2017; Hainmueller, Hangartner and Pietrantuono 2015, 2017; Maxwell 2017) and improve the quality of life for immigrants and natives alike. Unsuccessful integration, on the other hand, can have a number of deleterious consequences: economic marginalization (Adida, Laitin and Valfort 2016; Dancygier and Laitin 2014), violence (Dancygier 2010), and political exclusion (Hochschild et al. 2013).

For these reasons, understanding the causes of successful and failed integration has been a central task for immigration scholars. National-level policy regimes, such as multiculturalism and assimilation (Koopmans 2013) or the strictness of citizenship laws (Goodman 2010; Howard 2009), have been identified as important factors that create or limit opportunities for immigrants. Discrimination has been identified as one of the main inhibitors of integration, operating in the economy (Adida, Laitin and Valfort 2016; Dancygier and Laitin 2014), in access to citizenship (Hainmueller and Hangartner 2013), and

in electoral politics (Dancygier et al. 2015). The consequences of political mobilization have also been considered, and while political mobilization can result in policy that responds to immigrants' preferences (Vernby 2013), it can also inhibit social integration by causing immigrant-native conflict (Dancygier 2010). Alternatively, successful integration in one area may prevent and hinder integration in another area (Maxwell 2012).

Together, the studies cited above explain the origin of national-level differences in integration and the mechanisms that facilitate and inhibit integration. However, integration can also vary substantially within countries. For example, in Germany in 2014, the immigrant unemployment rate was six percentage points higher than the native unemployment rate in the western city of Essen, while in the northern city of Flensburg, the difference between the two unemployment rates was less than half a percentage point.[1] For a full understanding of integration, it is also necessary to understand variation in integration within countries. Why do immigrants integrate more successfully in some cities and regions than others? What are the features of a local context that facilitate integration, and what are the features that inhibit integration?

The process of immigrant integration occurs at the individual level, and as such, it is significantly impacted by the local context in which an individual operates. These local contexts, such as, the demographics of immigrant populations, the ideology of local politicians, the strength of the local economy, and natives' attitudes toward immigrants, shape immigrants' opportunities and decisions throughout the course of the integration process. In this dissertation, I contribute to our understanding of integration by exploring three ways that local contexts impact the process of integration. The findings not only show how integration is influenced by structural factors, but also have important implications for policies ranging from the spatial dispersion of refugees to the political rights granted to immigrants.

[1]See Appendix B.1 for data sources.

1.1 Plan of the dissertation

The remainder of the dissertation proceeds as follows. Chapter 2 (co-authored with Anna Piil Damm) investigates the consequences of local partisan government on immigrant integration. We argue that parties of the left, which are committed to promoting socio-economic equality and which include immigrants in their constituencies, are likely to facilitate integration when controlling local government. This contrasts to parties of the right, which we expect to de-prioritize or even stall integration because of their focus on reducing government spending and the electoral challenges they face from anti-immigrant parties. We test the empirical implications of this argument on a sample of refugees subject to Denmark's Spatial Dispersion Policy of 1986-1998, which led to the quasi-random assignment of refugees to municipalities. Our research design allows us to estimate effects of local government absent the selection bias due to most immigrants' ability to self-select into the local contexts most favorable for their integration. Using refugee-level data from Denmark's administrative registers, we find that being settled in a left-governed municipality leads to significantly better integration, as measured by the rate of out-migration from Denmark. We also find that this effect is conditional on the electoral context, existing only in municipalities where the left's electoral majority is secure.

Chapter 3 transitions from studying the elite aspect of local political contexts to the demographic aspects. In this chapter, I develop an argument that connects levels of immigrant diversity to the success of integration. My argument states that diverse immigrant populations are less likely to be negatively stereotyped, and therefore, less likely to provoke anti-immigrant attitudes among natives. Integration will then proceed more successfully, as anti-immigrant attitudes and discrimination do not prevent immigrants from fully participating in society. The empirical implications of this argument are that high levels of immigrant diversity should lead to more successful integration and lower levels of anti-immigrant attitudes among natives. I test these implications using a combination of observational and experimental methods. First, I use local-level administrative data from

Germany and Denmark to assess the impact of diversity on integration. With a dataset of more than 600 localities covering more than 30 years, I find that immigrant populations with higher levels of national-origin diversity have lower unemployment rates. Second, I conduct an original conjoint experiment to a sample of 2,130 Germans to test the effect of diversity on natives' attitudes. The conjoint experiment asks respondents to compare groups of 60 immigrants with varying levels of national-origin country diversity. I find that attitudes are significantly more positive toward immigrant groups with the highest level of diversity, supporting the mechanism in this chapter's argument.

In Chapter 4, I continue to study immigrant demographics, analyzing natives' attitudes toward groups of young immigrant men. Young immigrant men have become politically salient since the 2015 Refugee Crisis in Europe, but little scientific research has been done to investigate public attitudes toward this group. I identify three possible explanations for attitudes toward young men. First, attitudes toward young immigrant men may be positive because of the economic potential of young men. Second, attitudes may be more negative because of the security threat young men are perceived to pose. Third, attitudes may also be more negative due to perceptions that young men pose a threat to natives' culture and way of life. I assess these attitudes using the same conjoint experiment that was used in Chapter 3, which randomly varied the share of young men in the immigrant groups in addition to the diversity of immigrant groups. My first result shows that attitudes toward young men are, on the whole, very negative. The more young men are in a group, the less favorable natives' attitudes are toward that group. My second results support the second two explanations for this negativity: groups with young immigrant men are perceived as posing a large security threat and cultural threat. In contrast, there is no evidence that respondents are optimistic about the economic contributions of groups with many young men.

Chapter 2

Local Political Contexts and Immigrant Integration*

2.1 Introduction

Immigration has grown substantially in the last 30 years, to the extent that the integration, or equal and free participation in the social, political, and economic life of the host country (Dancygier and Laitin 2014), of new arrivals is a chief concern of policy makers and scholars alike. When successful, integration allows immigration to enrich the life of the host country (Hainmueller, Hangartner and Pietrantuono 2017; Maxwell 2017); when unsuccessful, unemployment, political underrepresentation, and conflict can follow. The process of integration begins as soon immigrants arrive in the new country, when they become subject to the laws and policies of their new home. Many of these laws and policies operate and are created at the national level: for example, the requirements for permanent residence and citizenship are typically decided in the capital (e.g. Howard 2009). However, not all of the political responsibility for integration belongs at the national level; much of it also resides at the local level (Koopmans 2004). Despite local governments' responsibilities when it comes to integration policy, we do not know the impact of local politics on integration.

*Coauthored with Anna Piil Damm

Scholars have long focused on understanding the consequences of other elements of local contexts on integration. For example, natives' prejudices are known to impede immigrants' access to citizenship (Hainmueller and Hangartner 2013), employment (Adida, Laitin and Valfort 2010), and political representation (Dancygier et al. 2015). The qualities of immigrant's local social networks are also known to impact integration (Edin, Fredriksson and Åslund 2003). Part of the lack of attention given to local political contexts likely stems from the difficulty in estimating these effects due to immigrants' ability to self-select into contexts which offer them the best chance of success. Several features of local political contexts, such as the electoral salience of immigrants' integration in the community, the share of the public budget dedicated to policies aiding immigrants, and the responsiveness of local politicians to immigrants' concerns impact the success or failure of the integration process. To the extent that immigrants consider these features of cities and regions when deciding where to live, estimates of the effect of local political contexts will be confounded by selection bias.

In this study, we deploy a research design which allows us to overcome this selection bias and to test the consequences of local political contexts on integration. Our empirical tests make use of a unique natural experiment in refugee location created by Denmark's Spatial Dispersion Policy (SDP) of refugees, which ran from 1986-1998. Under the SDP, refugees were quasi-randomly placed in one of Denmark's 275 municipalities. These placements were independent of both municipal and refugee preferences; only a small set of refugee demographics and the availability of suitable housing influenced placement. As such, we are able to estimate the effect of local political contexts absent confounding caused by refugee location preferences.

We combine this research design with fine-grained and detailed data drawn from Denmark's administrative registers. The dataset we extract from the registers contains annual observations of approximately 20,000 refugees subject to the SDP from 1980 to 2012. The registers contain a wide array of measures, including the demographic traits (age, gender, national origin, marital status, and number of children) observed during the SDP place-

ments, plus refugees' education levels and the durations of their residence in Denmark. The register data allows us to study integration using individual level behavioral measures. Together, the SDP and administrative registers give us a unique opportunity to precisely study the consequences of local political contexts on integration on individual refugees.

Drawing on theories of partisan effects on spending (Blais, Blake and Dion 1993; Hibbs 1977; Imbeau, Pétry and Lamari 2001), and political responses to immigration (Bale 2008; Bloemraad 2013; Meguid 2005), we develop and test an argument about local political contexts' impacts on integration. Specifically, we argue that the policy levers available to local policy makers afford them numerous opportunities to influence integration and that parties will use these levers to achieve their integration-related policy and electoral goals. Parties of the left, we predict, have incentives to facilitate integration, as their ideology emphasizes social justice and openness, and immigrants are often a key part of their constituency. In contrast, the right's electoral incentive to be tougher on immigrants and maintain ideological commitments to limited market intervention will stall integration. Based on this argument, we predict that integration will be more successful for immigrants living in municipalities governed by the left.

We focus on one specific integration outcome: out-migration. This outcome reflects integration across several areas, and allows us to gauge the success or failure of integration as a whole at the individual level. When refugees decide to leave Denmark, they are signaling not only that they think their quality of life will be higher in another location, but also that they are willing to go through the upheaval of further migration in order to improve their quality of life. This represents a failure of integration in at least one of the social, economic, or political arenas. Refugees who establish long-term residence in Denmark, by contrast, are those who have presumably found fulfilling social and economic lives, which are hallmarks of successful integration.

Our results show a significant impact of local political contexts on integration, indicating that refugees randomly assigned to left-governed municipalities migrate away from

Denmark at a substantially lower rates. Extending our theoretical argument to consider of the consequences of electoral competitiveness, we also argue that when left parties are at risk of losing control of the mayorship they will eschew facilitating integration in order to secure more votes from natives. The data bears out this prediction as well: the beneficial effects of being settled in a left-governed municipality on integration only exist when the left is electorally secure.

These findings contribute to the ongoing discussion about integration in multiple ways. First, by showing that the outcomes of local politics matter for immigrants, our results add to the ongoing debate about extending citizenship and the right to vote to immigrants (see Hainmueller, Hangartner and Pietrantuono 2017; Vernby 2013). Given that decisions made in local governments impact immigrants, an inability to influence these decisions represents a departure from normative ideals of democracy and representation. Second, the results contribute to our understanding of integration, showing that contextual factors play an important role in the success of this process. Third, it shows that spatial dispersion policies, which are commonly used to settle refugees and asylum seekers, are not without consequence for integration. In effect, these policies can act as a lottery, setting some refugees up for success and placing roadblocks to success in front of other refugees.

2.2 Theoretical Argument

Previous arguments about local political contexts and immigrant integration have largely focused on either immigrant input into the system (e.g. Dancygier 2010; Pantoja, Ramirez and Segura 2001; Vernby 2013) or on parties' roles as political recruiters (e.g. Bloemraad 2013; Bloemraad and Schönwälder 2013; Dancygier 2013; Dancygier et al. 2015; Togeby 2008). However, local political contexts can also impact immigrant integration through the policy decisions made by the local government and how accessible the government is to immigrants.

Local government decisions can impact integration in numerous ways. They influence the allocation of public funds to schools, health care, transportation, housing, and other

public goods vital for immigrants. Local governments also have an important role in the distribution of public housing (Dancygier 2010), and the partisanship of the mayor can impact local spending (Gerber and Hopkins 2011). Additionally, local parties play an active role in the local economy by operating extensive vocational education and career centers that stimulate employment, or by enacting tax breaks that attract businesses and investment. Governing parties also control the accessibility and responsiveness of the local government to immigrants through the opening of offices and administrative branches in immigrant areas (Hopkins 2011) and through the establishment of integration councils that bring immigrant concerns directly to the ears of local officials.

These decisions impact integration through several channels. Career centers and vocational education help immigrants integrate into the labor market. Adequate public transportation opens new opportunities for social interactions between immigrants and natives, prevents immigrants from being physically isolated, and gives immigrants access to more jobs. Access to public housing allows immigrants to move to areas with opportunity and away from deprived neighborhoods. Easily accessed local governments also make it straightforward for immigrants to obtain benefits to which they are entitled. More broadly, an accessible local government generate trust in the state among immigrants, leading to better social integration and reducing the potential for conflict.

2.2.1 Consequences of parties' electoral and policy goals for integration

Actions local branches of political parties take to accomplish their electoral and policy goals can have consequences for the degree of success of integration in their communities. Regarding policy, the ideological leanings of the left are generally more friendly towards integration. Socially, the left is known to favor inclusionary, multi-cultural policies that emphasize fair treatment of immigrants (Berman 2006; Bale et al. 2010). Economically, the left is known for defending the welfare state, prioritizing increased employment,

and generally taking an active role in the economy with the goal of reducing inequality (Berman 2006; Green-Pedersen, van Kersbergen and Hemerijck 2001; Kitschelt 1994). Facilitating integration, particularly by reducing the costs associated with labor market entry, is clearly consistent with these policy goals. In contrast, the right's ideological leanings make it less predisposed to aiding integration. On social issues, the right takes harder lines on immigration (Akkerman 2012; Bale 2003, 2008) and is generally more in favor of maintaining the traditional native cultural values, while economically it favors less state intervention in the economy and a less extensive welfare state (Kalyvas and van Kersbergen 2010). These policy priorities matter, as there is evidence that they are influential in spending decisions (Blais, Blake and Dion 1993; Hibbs 1977) that can directly influence immigrants' quality of life.

Electoral incentives will also push the left and right to handle integration differently when setting local integration policy. Beyond parties' belief that accomplishing their policy goals is key to achieving electoral success, the differing electoral incentives of the left and right influence how much emphasis they place on helping immigrants integrate. Immigrants are often a key part of the left's electoral constituency at the local level (Dancygier 2010; Garbaye 2005; Togeby 2008), and immigrants' policy views tend align with the left (Dancygier and Saunders 2006). Left parties therefore have strong incentives to facilitate integration and respond to immigrants' concerns, as doing so can lead to electoral success. In contrast, the electoral constituencies of parties on the right include voters with more traditional social values and stronger nationalistic identities, incentivizing these parties to avoid taking too soft a stance on immigration (Bale 2008). Especially in contexts where traditional parties of the right are in competition with anti-immigrant parties of the far-right for a single set of voters, parties of the right have a strong incentive to take a tough stance toward immigrants and integration (Meguid 2005). When the dominant integration paradigm is one of assimilation over multiculturalism (Koopmans 2013), the electoral incentives to avoid the appearance of prioritizing immigrants at the expense of natives become even stronger.

Tying electoral and policy motivations together, parties of the left and right have different priorities when addressing integration. Left parties are motivated to direct resources to immigrants, either directly through cash transfers or the allocation of public housing or through programs which directly benefit immigrants, such as the opening of job centers and new schools. In doing so, they stand to please both their native constituency, which has liberal social values and favors social justice, and an immigrant constituency, which wants the party to meet its needs (Vernby 2013). The left's policies, therefore, should lead to more successful integration. The opposite is expected for parties of the right. They will be hesitant to direct scarce resources towards immigrants and will have less direct motivation to be especially responsive to immigrants. Consequently, immigrants living in municipalities governed by the right will have more difficulty integrating, as there will be fewer resources directed to them as well as less incentive for the government to respond to immigrant concerns. In sum, our argument states that local politics matters for the success of integration, and predicts that the policy and electoral goals of left parties means that immigrants living in municipalities governed by the left are more likely to successfully integrate.

2.3 Research Design

To identify the effects of local political contexts, we leverage a natural experiment in immigrant location created by Denmark's Spatial Dispersion Policy (SDP) of refugees, in effect from 1986-1998.[1] This policy was a response to the increasing in-flow of refugees to Denmark in the 1980s and the limits of the housing stock in Copenhagen, many refugees' preferred destination. Under the SDP, refugees were randomly placed in municipalities conditional on several refugee demographic traits, all of which we observe and include in our analysis. Importantly, information about education, job skills, income, or language abilities was not available to officials making the placements. Further, refugees' individual location preferences were not considered in the placement process, nor were municipalities'

[1]We describe the SDP in detail in Appendix A.1.

preferences regarding refugees considered.

Placement through the SDP obviates concerns about selection bias that would hamper an analysis where refugees can self-select into municipalities. Specifically, as unobservable integration potential is independent of the decision to reside in a certain local political context, we can identify the effects of local contextual factors. However, the SDP did not require refugees to live in the municipality of assignment for an extended period. Some refugees would have stayed in their assigned municipalities for several years after arrival, while others would have moved shortly after arrival. For this reason, our results do not reflect the effect of living in a certain context for a number of years consecutively. Instead, our results reflect the consequences of living under certain conditions in the initial period after immigration. This initial period is critical: initial delays in the integration process can have deleterious consequences for long term integration(Hainmueller, Hangartner and Lawrence 2016). Local political contexts' impacts, therefore, are likely to be largest in the period immediately after settlement.

2.3.1 Local Government and Parties in Denmark

Municipalities are the lowest level of government in Denmark. In the time-period we study, there were 275 municipalities in Denmark. Each municipality was run by a municipal council, which acted as a legislative body, and a mayor. Mayors were not directly elected, but rather were chosen by a majority of the local council. These local councils varied in size from 9 to 55 seats, and were filled through elections occurring every four years. The municipalities had considerable political autonomy and were responsible for a wide variety of tasks. Among other things, they were in charge of spending in the local schools, implementing of social security programs, and setting income and property tax levels (Christoffersen and Paldam 2003; Harmon 2015). These responsibilities gave municipal governments numerous opportunities to take actions impacting the course of integration in their municipalities.

In Denmark, the main political parties at the national level are also the main parties

at the municipal level. The parties occupy a variety of positions on the traditional left-right scale. They are, as follows: left : Social Democrats and the Socialist People's Party; Center: the Radical Liberals and Center Democrats; center right: Venstre and the Conservative People's Party; far-right: the Progress Party and the Danish People's Party. Additionally, unaligned independent politicians often win seats on local councils and hold mayorships. The ideology of these independent local politicians varies, and they can occupy positions along the ideological scale. Considered as a whole, the Danish party system is quite typical of European democracies: small parties exist on the far left, far right, and center, while two larger parties (the Social Democrats and Venstre) occupy positions at the center left and center right. As such, the inferences from this paper should carry over to other systems.[2]

Similar to other European countries, Denmark has seen a large increase in its immigrant population in the last 30 years. From 1980 through 2010 the percentage of immigrants in the population rose from 3% to 12%, with immigrants originating primarily from the Middle East, Southeast Asia, and the (former) Yugoslavia. Many of the immigrants arriving in Denmark during this period were asylum seekers: almost 80,000 people were granted asylum in Denmark between 1986 and 1998. Integrating these new arrivals has been a challenge for Denmark. Electorally, difficulties in integration have helped fuel the rise and success of the Danish People's Party. In terms of policy, challenges in integration have lead Denmark to revise their integration policies, with the largest change being the 1999 integration law, which ended the SDP and required new refugees to actively participate in integration programs to receive public benefits from the state.

[2]To the extent that party competition in Denmark is unique, it is due to the fact that there is little difference between the center-right and center-left on many economic issues. This fact should work against finding the results we do because there may be only minimal difference in the policies implemented by the left and right. In contexts with starker differences between left and right, we therefore expect the impact of local political contexts on integration to be even larger.

2.3.2 Data and Variables

The data for this study comes primarily from Statistics Denmark's administrative registers. These individual level registers contain time-series observations for demographic, social, political, and economic indicators. Notably, the individual level registers can be linked by a unique identification number assigned to all legal residents of Denmark, including refugees. These detailed data allow us to construct very precise measures of our integration variables and use individual refugees as units of analysis. We complement these individual level data with municipal level data from a variety of public sources.

From the population of refugees entering Denmark in the SDP era, we extract a sample of 19,314 refugees. We follow Damm and Dustmann (2014) in constructing our sample of refugees.[3] Eight origin countries are represented in our sample: Afghanistan, Ethiopia, Iran, Iraq, Lebanon (including Palestinians), Somalia, Sri Lanka, and Vietnam. Together, refugees from these eight countries accounted for more than 86% of the total number of permanent residence permits granted to refugees between 1985 and 1997. We exclude refugees whose initial municipality of residence was Copenhagen, because refugees who opted out of the SDP likely moved to Copenhagen. Further, we include our sample includes only the head of household, defined as the spouse arriving in Denmark first for couples, because our main outcome variables focuses on migration, which is a decision families typically make together.

We measure several demographic characteristics of refugees: *Gender* (an indicator for female), *Origin Country*, *Immigration Age* (in years), *Immigration Year*, *Marital Status* (an indicator for married) and *Number of Children* and *Educational Attainment* (unknown, 0-9, 10-12, or 13+ years). We use *Education Attainment* as a proxy for "integration potential," as education can be advantageous in the integration process. As this variable was unobserved by the SDP placement officials, we use it below to carry out a randomization check. Finally, we also measure *log(Ethnic Stock)* as the number of a

[3]See Appendix A.2 for more details on the construction of our sample.

refugee's co-nationals living in Denmark in the year of arrival.[4]

Measuring integration is not straightforward, because integration, as a concept, is very broad: it includes the social, cultural, political, and economic aspects of immigrants's lives. As such, no single measure can plausibly capture all aspects of integration, and in many cases, there may be tradeoffs between types of integration (e.g. Hainmueller, Hangartner and Pietrantuono 2017; Maxwell 2012). In our analysis, we measure integration through a refugee's length of residence in Denmark. We consider shorter stays to represent unsuccessful integration because the decision to leave Denmark indicates a belief that life would be better in another country. Given that migrating can be very costly, and requires bearing both economic and social costs, only when a refugee is highly dissatisfied with his/her life in Denmark would the upheaval of migrating again be worthwhile. Such a case clearly represents failed integration: refugees that decide to leave are likely outside the labor market, socially isolated, or more generally do not feel a sense of belonging in Denmark. In contrast, establishing a long-term residence is not only a symbol of successful integration (Hainmueller, Hangartner and Pietrantuono 2017), but is also associated with greater future integration (White et al. 2008) and is often necessary for the acquisition of citizenship. For these reasons, understanding why and when refugees leave Denmark is important for understanding integration more generally.

Based on these arguments, the main outcome variable in our analyses is *Out-Migration*. We define this as the number of years a refugee stays in Denmark before out-migrating.[5] This variable is right censored at 10 years for all refugees who stay in Denmark at least 10 years. We make this decision because we are interested in the consequences of initial political contexts, the effects of which we do not expect to impact migration decisions indefinitely.[6]

To measure the political context, we create two variables. First is *Left Mayor*, a dummy indicating whether the mayorship is held by the Social Democrats or the Socialist People's

[4]Data on the number of co-nationals comes from table BEF3 at Statistics' Denmark's StatBank.
[5]Operationalized as years until a refugee no longer appears in the administrative registers.
[6]Our main results are robust to the use of 5 and 15 year periods as well.

Party.[7] With this measure, we can clearly identify which party holds the executive branch of local government. There is little variation in this variable, as elections only occur every four years and in many municipalities, the same party holds the mayorship for several terms. For this reason, we also measure the local political context with *Left Seat Share*, the percentage of seats on the local council held by the Social Democrats and the Socialist People's Party among those held by the Social Democrats, the Socialist People's Party, Venstre, and the Conservative People's Party. The advantages of this variable are that it changes from election to election regardless of who holds the mayorship, and that it is a more fine-grained measure of the strength of left parties in the local government.

We measure several other municipal characteristics at the time of a refugee's arrival in Denmark to account for the local opportunity structure more generally.[8] *Log(Population)*, and *% Immigrant Population* measure municipal demographics. *Unemployment Rate* measures unemployment as those in the labor force without employment among all residents of a municipality (Danes and immigrants). *% Rental Housing* is the percentage of rental housing among total housing; municipalities with more rental housing likely offer more opportunities for refugees to find adequate housing for relocating their initial settlement, which can help refugees succeed in the labor market. Finally, *Far Right Vote Share* measures support for Denmarks' two anti-immigrant parties, the Progress Party and the Danish People's Party, in elections for the national parliament.[9] This variable proxies the level of anti-immigrant sentiment among natives, and is measured using national election results so that it does not also measure local political issues. By accounting for local anti-immigrant sentiment, we are able to separate our explanation – the effects of local politics – from local attitudes towards refugees.

[7]Data from the Mayor Facts (Borgmester Fakta) database of the the magazine *Kommuner*. Data available at `www.kommuner.dk/borgmesterfakta.`

[8]Data for these measures comes from StatBank unless otherwise noted.

[9]Data is from the Danish Elections Database, available at `valgdata.ps.au.dk`.

2.3.3 Empirical Approach

To explore the role of local political contexts on the duration of refugee residences in Denmark, we fit a series of Cox proportional hazard models. Event history models are appropriate for our study, which is interested in both whether an event occurs (leaving Denmark) and when (how many years after arrival) that event occurs. We prefer the Cox proportional hazard model in particular as it does not require us to make any assumptions about the shape of the survival function. Our models include the full set of refugee characteristics, municipal controls, and one of our two political contextual variables. We also cluster standard errors by municipality. The coefficients from these Cox proportional hazard models tell us how our variables impact the hazard rate, which is probability of leaving Denmark at any given time. A positive coefficient indicates that a variable increases the likelihood of moving away from Denmark, while a negative coefficient indicates that a variable increases the probability of staying in Denmark.

2.3.4 Randomization Check

Before presenting our main results, we perform a randomization check to probe the validity of the SDP as a natural experiment. We regress, one at a time, our municipal level variables on the observable refugee characteristics plus education, which was unobservable to the officials implementing the SDP, but is observable to us thanks to the administrative registers. Our expectation is that we should find no strong relationships between municipality characteristics and refugee education levels. These models are OLS regressions including entry year and origin country fixed effects and our full set of refugee demographics.

Table 2.1 displays the results of these regressions, with each column representing one of our different municipal level variables. The coefficients for the variables observable to the refugee council show some reliable relationships. For instance, families with more children were more likely to be placed in smaller cities with smaller immigrant populations. This

is likely due to the lack of housing suitable for large families in large cities. There is also evidence that the officials implementing the SDP took gender, age, and ethnic stock into account in making placements, with older, female, refugees with larger ethnic stock being more likely to be placed in larger, more immigrant dense municipalities governed by the left. These correlations are consistent with the SDP as a natural experiment, as this information was observed by the officials making placements.

The key variable in this randomization check is Eduction for two reasons: 1) it is a a proxy for integration potential, as highly educated refugees have more skills that can be used in the labor market, and 2) because it was not observed by the refugee council during the placement process. Consequently, education should not be correlated with municipal characteristics under our interpretation of the SDP. For the non-political municipal characteristics, none of the education coefficients returns a substantive and statistically significant effect. For the three political variables, the coefficients largely indicate education is indeed unrelated to the political context. The one exception comes from refugees with with unknown education levels, who are 2.2% more likely to be placed in municipalities with left mayors. On the whole, education has no substantive relationship with municipal characteristics, which is evidence that the SDP randomly sorted refugees into municipalities across Denmark.

Table 2.1: Randomization Check for Refugees Subject to the SDP

	log(Population)	% Immigrants	Unemployment Rate	% Rental Housing	Left Mayor	Left Seat %	Far Right Vote %
Married	0.022	−0.000	0.000	−0.003	−0.002	−0.001	−0.000
	(0.019)	(0.000)	(0.000)	(0.002)	(0.008)	(0.002)	(0.00)
Children	−0.044***	−0.001***	−0.000	−0.007***	−0.008**	−0.002*	0.001***
	(0.007)	(0.000)	(0.000)	(0.001)	(0.003)	(0.001)	(0.000)
Age	0.004***	0.000***	0.000*	0.000***	0.001**	0.000*	−0.000***
	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
log(Ethnic Stock)	0.097***	0.001	−0.000	0.014***	0.036***	0.008***	0.000
	(0.020)	(0.000)	(0.000)	(0.003)	(0.008)	(0.002)	(0.000)
Gender	0.060**	0.002***	0.000	0.009***	0.022**	0.005*	−0.002***
	(0.020)	(0.000)	(0.000)	(0.003)	(0.0008)	(0.002)	(0.000)
Years of eduction (ref. category: 0-9 years):							
10-12 years	0.028	0.001	0.000	0.003	0.010	0.001	−0.000
	(0.022)	(0.000)	(0.000)	(0.003)	(0.009)	(0.003)	(0.000)
13+ years	−0.051	−0.000	−0.000	−0.005	−0.004	−0.000	0.001
	(0.031)	(0.001)	(0.001)	(0.004)	(0.013)	(0.004)	(0.001)
Unknown	0.006	0.001*	0.001	0.005	0.022*	0.006*	−0.001
	(0.024)	(0.000)	(0.000)	(0.003)	(0.010)	(0.003)	(0.000)
Intercept	9.872***	0.031***	0.072***	0.337***	0.446***	0.534***	0.029***
	(0.110)	(0.002)	(0.002)	(0.014)	(0.046)	(0.013)	(0.002)
Origin F.E.	√	√	√	√	√	√	√
Year F.E.	√	√	√	√	√	√	√
R^2	0.082	0.205	0.403	0.091	0.043	0.073	0.494
N				19,387			

Note: Cell entries represent unstandardized coefficient entries with standard errors in parentheses. The sample for these models is the refugee household head sample. 0-9 years is the excluded category for the education. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

2.4 Does a Left Government Improve Integration?

Table 2.2 reports the results of two Cox proportional hazard models of out-migration from Denmark. As can be seen, the estimates for both *Left Mayor* and *Left Seat Share* are negative and statistically reliable in both models. This indicates that refugees' migration decisions responded to who governed locally. To assess the substantive importance of these effects, we consider how they alter the hazard rate, which is the probability of a refugee moving away from Denmark in any given year. For *Left Mayor*, our estimate suggests that being assigned to a left-governed municipality reduces the probability of leaving in any given year by approximately 10%. The estimates also suggest that the hazard rate declines by about 6% if a refugee is assigned to a municipality where the left's seat share on the local council is one standard deviation (.12) higher than the mean (.56). These are substantial effects.

Turning to the municipal level controls, we see that they have little impact on the outcome variable. The only variable that returns a statistically significant estimate in either model is *% Immigrants*, which indicates that refugees are more likely to move away from Denmark when they are settled in large pre-existing immigrant communities. The other estimates suggest that refugees are more likely to move away from Denmark when they are settled in larger municipalities, in municipalities with more support for far right parties, and in municipalities with high unemployment rates, although none of these estimates are significant at conventional levels.

In evaluating the empirical implications of our theory, two Cox proportional hazard models have shown that refugees respond to the local political context in their migration decisions. Specifically, refugees randomly assigned to left-governed municipalities by the SDP are less likely to leave Denmark in the intervening ten years. This effect is substantively meaningful, changing the probability of exiting Denmark by 10% in any given year, and exists when considering both who controls the mayorship and the share of seats held by the left on the local council.

Table 2.2: The Effect of Political Context on Out-Migration

	Model 1	Model 2
Left Mayor	-0.107^{*}	
	(0.050)	
Left Seat Share		-0.422^{*}
		(0.196)
Far Right National Vote	2.192	2.142
	(1.73)	(1.203)
log(Population)	0.025	0.014
	(0.029)	(0.028)
% Immigrants	3.502^{**}	3.469^{**}
	(1.205)	(1.173)
Unemployment Rate	0.090	0.401
	(1.174)	(1.192)
% Rental Housing	-0.018	0.069
	(0.297)	(0.295)
Individual Controls	$\surd$	$\surd$
Origin F.E.	$\surd$	$\surd$
Year F.E.	$\surd$	$\surd$
AIC	77,188	77,188
N	19,387	19,387

Note: Cell entries represent unstandardized coefficients from Cox proportional hazard models with standard errors clustered by municipality in parentheses. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

2.5 Do Competitive Local Politics Hamper Integration?

Part of our argument about the impact of local politics on integration is that parties of the the left have an electoral incentive to hear and respond to refugees' concerns, as these groups form part of the left's constituency. Extending this logic, we further argue that left parties' incentive to actively seek out support from refugee voters is contingent on the level of electoral competition in a municipality. When electoral competitiveness is high, meaning that small changes in vote share can determine which party gets to occupy the mayor's office, maximizing vote share becomes more important for parties. Parties attention will subsequently be drawn toward crucial swing voters, whose support can make all the difference, but whose vote choice can be impacted of relations between immigrants and natives (Dancygier 2013). In this case, the left must choose between

continuing the behaviors which have helped immigrants integrate well buy may lead the left to losing office, or adopting a more nativist stance that appeals to a broader segment of the electorate and results in the left's continuing control of the mayorship. We argue that parties will choose the latter, given the value of holding office for achieving their policy goals. The beneficial effects of left governments on integration should, therefore, be curtailed in contexts where the left is electorally vulnerable.

We test this extension to the argument by fitting two additional versions of our main model that account for the possible conditioning effects of competitiveness. To do this, we created a new variable, *Competitive*, which is an indicator for whether the seat share of the left is between 45% and 55%.[10] We operationalize competitiveness in this way because the mayor is elected by a majority of the local council, and hence, municipalities where the left has either just barely above or below half of the seats will be ones where slight changes in seat share can alter control of the mayorship. Our first specification in this section includes all municipalities, and allows the effect of *Left Mayor* to vary between competitive and non-competitive municipalities. Our second specification in this section considers the effect of *Competitive* when considering left-governed municipalities in isolation.

Table 2.3 shows the results of these two models. The estimates indicate that there are indeed different processes at work in municipalities where the left is electorally secure and in those where it is not. Our interaction model has a negative and statistically significant coefficient for *Left Mayor* and a positive and statistically significant coefficient on the interaction between *Left Mayor* and *Competitive*. This indicates that initial residence in a left municipality decreases the probability of leaving Denmark, but that this probability increases in competitive municipalities. The second model, including only left-governed municipalities, shows a similar result. *Competitive* has the expected sign and is statistically significant. To ease the interpretation of our interaction model, we calculated the marginal effect of *Left Mayor* on the hazard rate for both competitive and non-competitive

[10]Our results are robust to considering bands of competitiveness as tight as 47-52.

Table 2.3: The Effect of Electoral Competitiveness on Out-Migration

	Model 1	Model 2
Left Mayor	-0.196^{**}	
	(0.061)	
Competitive	-0.129	0.145^{**}
	(0.072)	(0.054)
Left Mayor × Competitive	0.259^{**}	
	(0.086)	
Far Right National Vote	2.303^{*}	4.667^{**}
	(1.167)	(1.649)
log(Population)	0.024	0.032
	(0.029)	(0.033)
% Immigrants	3.008^{*}	3.425^{**}
	(1.190)	(1.315)
Unemployment Rate	0.363	-0.128
	(1.125)	(1.471)
% Rental Housing	0.168	0.378
	(0.300)	(0.372)
Individual Controls	√	√
Origin F.E.	√	√
Year F.E.	√	√
AIC	77,182	51,558
N	19,387	13,339

Note: Cell entries represent unstandardized coefficients from Cox proportional hazard models with standard errors clustered by municipality in parentheses. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

municipalities along with their respective 95% confidence intervals. These are shown in Table 2.4. As can be seen, the effect of *Left Mayor* in non-competitive contexts is to decrease the hazard rate, or probability of moving away in any given year, by about 18%. In contrast, the estimated effect of *Left Mayor* in competitive municipalities is to increase the hazard rate, although this estimate is not statistically distinguishable from the baseline hazard rate (non-left, non-competitive municipalities).

These results point to a strong electoral logic connecting local politics and refugee integration. While our earlier results indicated that on balance, refugees tend to stay in Denmark longer when settled in left-governed municipalities, these results show that electoral politics play a key role in this relationship. When the left holds the mayorship without a comfortable electoral cushion, its impact on the rate of refugee out-migration

Table 2.4: Marginal Effects of *Left Mayor*

	Marginal Effect	95% CI
Non Competitive	0.822	[0.730, 0.925]
Competitive	1.065	[0.918, 1.236]

Note: Calculations based on estimates from Model 1, Table 2.3. Effects refer to change from baseline hazard rate.

disappears. This likely occurred because left parties in these municipalities, facing greater scrutiny from native voters in their handling of refugees, were less committed to expending scare resources and attention on helping refugees integrate. Such hesitation in helping refugees in the face of great scrutiny is sensible in the Danish context, where the assimilationist view of integration (Koopmans 2013; Togeby 2004) would lead natives to oppose specific recognition of minority groups by the local government.

2.6 Conclusion

The characteristics of the cities, regions, and countries immigrants arrive in can play an important role in determining how integration proceeds. When a location offers opportunities for economic advancement, limits social isolation, and provides a responsive political process, the process of integration can be made much easier. The consequences of successful integration are numerous: for example, it can lead to less poverty, less crime, and better relations between immigrants and natives. In this paper, we explain and show how local politics directly affects integration. We argue that local governments have both the opportunity and the motivation to create and implement policies in ways that can hinder or advance integration. The testable implication of our argument is that left parties – due to the their commitment to social equality and the inclusion of immigrants in their electoral coalition – will govern in a way that facilities immigrant integration. Using micro data on refugees in Denmark and leveraging the Danish Spatial Dispersion Policy of 1986-1998, we find evidence that local politics indeed impact integration. However, this effect depends on more than just who is in power – the beneficial effects of leftist government are dependent on the left having a secure majority in the local council.

Our use of the Spatial Dispersion Policy as an identification strategy represents an important development in studying how contextual variables can impact integration. Through this natural experiment, we are able to causally identify the effects of municipal characteristics on integration. Without it, efforts to study the important consequences of local characteristics are inevitably hampered by confounding resulting from immigrants' location choices. We hope that our use of the Spatial Dispersion Policy will spur further research leveraging dispersal policies, as similar policies have been implemented in the United Kingdom, Germany, and Sweden. Further, we note that while we have been able to identify the effect of government partisanship, our tests are not able to fully explore the mechanisms connecting party government and integration. This will be an important direction for further research.

Our paper makes an important contribution to the literature on immigrant integration by showing individual-level impacts of the local political context. Previous scholarship has often focused on "political opportunity structures," and has shown how more open or closed contexts can limit immigrant groups' engagement with the political process and the voicing of immigrant concerns. Our paper adds to this literature by showing clear evidence that arguably the most important element of the local political context, the parties and politicians in political office, impact integration. Further, we make a contribution by focusing on individual immigrants and their choices. For immigrants, being able to establish a long-term and stable residence in a city or region is important. Additionally, our study represents an important contribution by looking at a large number of cities, allowing us to rule out other explanations, such as the local economic context or the composition of the immigrant community.

More generally, our study shows that what happens in elections, even at the local level, can have real and important consequences for immigrants. As immigration becomes an increasingly important political issue in Europe and North America, the impact of elections on immigrants themselves is likely to only increase. When parties favorable toward immigrants and immigration succeed, immigrants can expect integration to be

less challenging and their opportunities to be more abundant. However, when parties opposed to immigration succeed, there are reasons to think the negative consequences for immigrant populations will be non-trivial. Our study has only examined the distinctions between left and right wing parties; we have not studied the consequences of the election and inclusion in government of explicitly anti-immigrant parties on integration. However, given these parties' often extreme positions, it is likely that our theoretical argument will extend to them.

Chapter 3

Immigrant Diversity, Native Attitudes, and Immigrant Integration

3.1 Introduction

Rapid growth in the size and diversity of immigrant populations has pushed immigrant integration to the top of the policy agenda in many developed democracies. Much is at stake in the integration process: when integration succeeds, and barriers to the full and equal participation of immigrants are removed (Kymlicka 1995), the economic potential of migration can be realized, benefiting natives and immigrants alike (Dancygier and Laitin 2014). Unfortunately, integration often falls far short of this goal. Instead, immigrants are marginalized, suffering from discrimination (Dancygier and Laitin 2014; Hainmueller and Hopkins 2014), political underrepresentation (Dancygier et al. 2015), and social exclusion (Algan et al. 2012). More visibly, integration failures can lead to violent conflict and rioting (Dancygier 2010), such as the 2005 riots in France (Mucchielli 2009). These outcomes are normatively troubling, running counter to the ideals of democratic society.

Unsurprisingly, scholars have dedicated substantial attention to the causes of both failed and successful integration. On the failure side, an important factor preventing inte-

gration is the persistently high levels of anti-immigrant attitudes among natives (Dancygier and Donnelly 2013; Fetzer 2000; Hainmueller and Hopkins 2014; Malhotra, Margalit and Mo 2013), based on fears that immigrants will harm their security, or cultural or economic status. These attitudes manifest themselves in discrimination across numerous areas, such as employment (Adida, Laitin and Valfort 2010; Dancygier and Laitin 2014), political representation (Dancygier et al. 2015), and access to citizenship (Hainmueller and Hangartner 2013). On the success side, naturalization has been hailed as a pathway to integration (Hainmueller, Hangartner and Pietrantuono 2015, 2017; Just and Anderson 2012), while the beneficial effects of granting immigrants the right to vote has also been shown (Vernby 2013).

While scholars have given integration a thorough treatment, they have paid much less attention to the demographic composition of immigrant populations. Apart from size (e.g. Dancygier 2010; Fennema and Tillie 1999; Hopkins 2010; Quillian 1995; Togeby 1999), the consequences of immigrant population characteristics on integration are relatively unknown. Yet, immigrant groups vary significantly in how similar or different they are in terms of ethnicity and origin country, as well as other demographics. How do the characteristics of an immigrant population impact the success of integration? Do homogeneous or diverse groups of immigrants integrate better? Do they face more or less antagonism by natives? Because immigrants are often settled in groups, understanding the consequences of group composition is highly relevant for policymakers and scholars alike who are interested in successful integration.

In this chapter, I argue that the characteristics of an immigrant population, specifically the level of diversity within a group of immigrants, influence integration success. Diversity matters because it depresses anti-immigrant attitudes among natives, thereby reducing discrimination. Specifically, diversity - in terms of religion, language, ethnicity, national origin, age, gender, education levels or other characteristics - repeatedly exposes natives to signals that the outgroup is heterogeneous and thereby counteracts a process of exaggerated out-group homogeneity that drives negative stereotyping (Hilton and von

Hippel 1996). Given that negative stereotypes are a known cause of anti-immigrant attitudes (Stephen, Ybarra and Bachman 1999), inhibiting them reduces such attitudes. Diversity's beneficial effects have the potential to be both substantial and sustaining. Reducing discrimination in hiring can lead to naturalization (Hainmueller and Hangartner 2013) and social acceptance by natives (Maxwell 2017), and reducing discrimination by political parties when nominating candidates can lead to greater political representation of immigrants (Dancygier et al. 2015).

My argument produces empirical implications that I test with both observational and experimental methods. First, I use local-level administrative data from Germany and Denmark to test the prediction that immigrant diversity leads to better integration. In recent decades, both countries have experienced large-scale immigration in the form of guest workers, refugees and asylum seekers, and intra-EU migrants. These various migration inflows have led to substantial diversity across regions and time. My main finding is that this diversity matters: localities with more successful integration also have higher levels of origin-country diversity. I also leverage the opening of the Øresund Bridge between Denmark and Sweden - a positive shock to integration in the Copenhagen area - to show that causality does not run from integration success to diversity.

The second prediction of my argument is that diversity reduces anti-immigrant attitudes. I test this prediction experimentally by conducting a conjoint experiment in Germany. In the conjoint study, respondents were asked to evaluate groups of 60 immigrants that vary randomly across three levels of origin-country diversity. Importantly, the randomization of diversity is designed so that the overall level of diversity is independent of the number of immigrants from any single origin-country. This ensures that attitudes toward the origin-countries included in the survey do not bias the estimate of diversity's effect. The results show a positive effect of diversity: respondents have more favorable attitudes toward more diverse groups of immigrants.

This study makes several contributions. First, these results compliment earlier findings about how specific groups of immigrants integrate (e.g. Dancygier 2010) by showing

that the success of one immigrant group depends on the other immigrant groups in a community. It also suggests that policy makers could proactively facilitate integration by considering pre-existing levels of immigrant diversity in a community when deciding which immigrants to admit and where to settle them. Second, this study develops a theory which directly links explanations of anti-immigrant attitudes with explanations of integration. These topics have often been studied separately, despite the clear linkages between them. Third, this study contributes to our understanding of how diversity affects social cohesion. Prior work focuses primarily on the diversity between natives and immigrants, and warns that such diversity leads to social capital loss and social conflict (Putnam 2007). In contrast, I show that diversity within immigrants has the opposite effect, leading to more out-group tolerance and improved integration. Finally, previous studies have shown that immigrant diversity increases quality of life and economic productivity for natives (Akay et al. 2017; Alesina, Harnoss and Rapoport 2016); the current study shows that immigrants benefit from diversity in these ways as well.

3.2 Integration and Native Attitudes

Discrimination is a key impediment to immigrant integration across numerous areas (Dancygier and Laitin 2014). In employment, correspondence tests have shown applications with immigrant names receive fewer callbacks than applications with native names (e.g. Adida, Laitin and Valfort 2014). In electoral politics, immigrants are prevented by party leaders (Dancygier et al. 2015) and voters (Dancygier 2013) from gaining access to representation. Similarly, access to citizenship for immigrants is impeded by discrimination based on origin countries (Hainmueller and Hangartner 2013). Preventing discrimination against immigrants is therefore critical for their successful integration.

A large share of this discrimination can be explained by anti-immigrant attitudes among natives. Explanations of anti-immigrant attitudes have typically focused on the type or level of threat posed by immigrants. Some authors emphasize socio-cultural threats (e.g. Sniderman, Hagendoorn and Prior 2004; Hainmueller and Hiscox 2007; Hop-

kins 2015; Sides and Citrin 2007), arguing that natives' anxiety over perceived cultural changes caused by inflows of immigrants drives anti-immigrant attitudes. Others argue that the economic threat posed by immigrants is the main driver of anti-immigrant attitudes (e.g. Dancygier and Donnelly 2013; Malhotra, Margalit and Mo 2013; Scheve and Slaughter 2001). Scholars have further argued that immigrant population levels (Quillian 1995) and changes (Hopkins 2010), as well as immigrants' internal cohesion (Dancygier 2010) all condition natives' threat levels.

Underpinning these perceptions of threat are natives' negative stereotypes about immigrants, which have been linked to anti-immigrant attitudes (Burns and Gimpel 2000; McLaren 2003; Pérez 2010). Research in social psychology supports this argument, showing that negative stereotyping is an antecedent to the types of threats – either realistic (over scare resources) or symbolic (over values) – that drive negative outgroup attitudes (Stephen et al. 2002; Riek, Mania and Gaertner 2006). Hence, negative stereotyping of immigrants fuels anti-immigrant attitudes and discrimination, limiting the success of immigrant integration.

3.3 Stereotyping and Immigrant Diversity

The development of negative stereotypes is a psychological process, but also depends on an individual's encounters with members of an outgroup and the characteristics of an outgroup. There are two processes of particular relevance. First, stereotypes can develop through subconscious detection of covariation. This type of stereotype development occurs when an individual subconsciously detects a correlation between behaviors or values and group membership (Hill et al. 1990; Hilton and von Hippel 1996), and can persist even if the initial correlation vanishes. Second, stereotyping can be the result of a tendency to perceive out-group members as more homogenous (Park, Judd and Ryan 1991; Simon and Mummendey 1990), thereby attributing the behaviors and values of a single outgroup member to all outgroup members. Perceptions of out-group homogeneity have been directly linked with both stereotyping, as well as prejudice and discrimination (Diehl

and Jonas 1991; Hilton and von Hippel 1996; Quattrone 1986).

These processes are relevant because they suggest ways in which stereotyping can prevented, and hence, anti-immigrant attitudes could be reduced. Importantly, both processes depend on the actual characteristics of the outgroup being stereotyped. First, the (subconscious) detection of correlations between outgroup membership and behaviors/values is less likely when members of an outgroup are more distinct from one another. Similarly, the outgroup homogeneity effect is known to be attenuated when outgroup members are easily categorized into subgroups (Park, Ryan and Judd 1992). Contrasts between ingroup and outgroup homogeneity also matter: when the outgroup is more heterogenous than the ingroup, stereotyping decreases (Simon et al. 1990).

Applied to the context of natives' attitudes toward immigrants, this discussion suggests that more heterogeneous or diverse immigrant communities will be subject to less stereotyping than their more homogenous counterparts. Natives will be less likely to subconsciously detect correlations when interacting with diverse immigrant communities, as these interactions are more likely to be varied. Similarly, diverse immigrant communities will be more easily categorized into subgroups, attenuating the outgroup homogeneity effect. Both of these effects will reduce stereotyping and anti-immigrant attitudes.

Several forms of immigrant diversity should produce these effects. Diversity in those traits along which group identities are typically formed should have the strongest effect on reducing stereotyping. These are traits such as national origin, race, religion, and language. However, any form of diversity which increases the variety of interactions natives have with immigrants or allows for natives to perceive more subgroups among immigrants should also reduce stereotyping. Heterogeneity in ages, vocations, and education levels could reduce negative stereotyping. Furthermore, as these effects depend on natives' personal experiences with immigrants, diversity at the local (rather than national) level, should matter the most (see also Hopkins 2010; Newman 2013). It is at this level where natives have the opportunity to interact with immigrants during everyday activities such as commuting, working, and leisure.

3.4 Empirical Implications

To summarize, the argument presented above connects immigrant diversity and integration through the mechanism of reduced anti-immigrant attitudes. More specifically, I argue that immigrant diversity impedes the development of negative stereotypes, reducing anti-immigrant attitudes. Reducing anti-immigrant attitudes, in turn, prevents discrimination and allows integration to succeed. I also argue that the effect of diversity should be especially strong at the local level, where immigrants and natives are in closest contact. This argument produces two observable empirical implications for the relationship between immigrant diversity and both anti-immigrant attitudes and integration.

The primary implication of my argument is that higher levels of immigrant diversity will lead to more successful integration. This prediction contributes to the literature on within-country determinants of integration describing how immigrant demographics can matter for integration beyond the total number of immigrants (e.g. Dancygier 2013; Hainmueller and Hangartner 2013; de Graauw and Vermeulen 2016) or the characteristics of specific groups of immigrants (Dancygier 2010; Eggert and Pilati 2014; Fennema and Tillie 1999; Michon and Vermeulen 2013). It also contrasts with other studies of diversity, which focus on diversity's impact on natives' or the entire population, rather than its impact on immigrants (e.g. Akay et al. 2017; Alesina, Harnoss and Rapoport 2016).

The secondary empirical implication of my argument that higher levels of immigrant diversity will lead to reduced anti-immigrant attitudes. This prediction follows other studies investigating the impact of immigrants' attributes on native attitudes (Bansak, Hainmueller and Hangartner 2016; Hainmueller and Hopkins 2014; Hopkins 2015; Turper et al. 2015). However, it diverges from these studies in that it shifts the focus away from individual immigrants to groups of immigrants. Given that immigrants often arrive and are settled in groups, this shift of focus is relevant and helps deepen our understanding of anti-immigrant sentiment.

3.5 Research Design

In this chapter, I test my theory's primary empirical implication – that diversity has a positive effect on integration – by analyzing local level administrative data from Germany and Denmark. Performing the analysis at the local level, as opposed to the regional or national levels, has multiple advantages. First, it maximizes the fit to the theoretical argument, which emphasizes the consequences of natives' personal observations of immigrants in their local communities. Second, comparing within countries holds several confounding variables constant, most notably citizenship regimes (see Goodman 2010; Howard 2009) and integration frameworks (e.g. multiculturalism vs. assimilation, see Koopmans 2013). The downside of a within-country test is that it limits external validity and generalizability, especially if it is the case that integration operates idiosyncratically in the test country. By investigating two countries, Germany and Denmark, my design lowers this risk.

Both the size of the immigrant population and the level of immigrant integration, measured through the ratio of foreign to native unemployment, in Germany and Denmark suggest that these countries are not outliers in terms of immigration. The foreign-born populations in Germany and Denmark accounted for 12.8 and 8.5 percent of the total population in 2013, respectively, placing their immigrant populations very close to the OECD median of 12.7% (OECD 2017*a*). In the same year, the ratio of foreign-born unemployment to native-born unemployment in these two countries was also similar to other developed countries: 1.69 in Germany and 1.91 in Denmark, compared to an OECD median of 1.39 and a European median of 1.63 (OECD 2017*b*,*c*). Thus, inferences drawn from Germany and Denmark should be generalizable to other contexts.

An additional benefit of studying Germany and Denmark is that these countries vary across several other dimensions which have the potential to impact integration. This further serves to increase generalizability. First, immigration has long been a salient political issue in Denmark, whereas immigration has only recently become politically salient

in Germany. As such, if diversity has an effect in both countries, it is unlikely that this effect is the result of the presence or absence of anti-immigrant political movements. Second, the post-war history of Non-Western immigration in Germany and Denmark is quite different. Prior to the influx of asylum seekers in 2015, Germany's Non-Western immigrant population was largely comprised of guest workers and their descendants. In contrast, a large share of the Non-Western immigrant community in Denmark is made up of refugees arriving after 1980. Since both refugees and economic migrants continue to arrive in Europe and North America, knowing that the effect of diversity is not restricted to a specific type of immigrant helps improve its usefulness as an explanation of integration. Finally, Germany's unique post-war history offers an additional advantage: by separately analyzing East and West Germany, I can investigate the robustness of diversity's effects to different economic contexts.

3.5.1 Data and Measures

Data for the analyses comes from government statistical agencies– the Federal Statistical Office in Germany and Statistics Denmark for Denmark. In Germany, I extract a sample of 467 districts (*Kreise*), covering all years from 2001 to 2014. Districts are the third level of government in Germany, below the federal government and the 16 state (*Land*) governments. In Denmark, I extract a sample of 276 municipalities, covering the period from 1981 through 2006.[1] During this period, municipalities were also the third level of government in Denmark, below the national government and the 14 counties. For both countries, I construct my measures using employment, population, and geographic records. Appendix B.1 shows the specific administrative tables used to construct each measure.

Immigrant Unemployment is the main measure of integration in this analysis. Unemployment is an important measure of integration for several reasons. First, unemployment

[1]The sample ends at this point because in 2007 the municipalities in Denmark were reorganized into 98 larger units and the 14 counties were replaced with 5 regions. All administrative records have a break at this point and the new municipalities do not perfectly overlap with the old municipalities.

prevents socioeconomic advancement, leading to marginalization (Dancygier and Laitin 2014). Second, immigrants who are unable to provide for themselves because of unemployment are more likely to depend on welfare programs, fueling resentment among natives (Hainmueller and Hopkins 2014) which can further stall integration. Third, employment can lead to greater perceptions of successful integration and belonging in society (Maxwell 2017). In Germany, I measure *Immigrant Unemployment* as the number of unemployed immigrants divided by the total number of immigrants in a district. While unemployment rates are typically measured among only the labor force, the size of the immigrant labor force at the district level is unavailable. Consequently, the actual unemployment rate is higher than what I measure, assuming that the total immigrant population is larger than the immigrant labor force. I measure *Immigrant Unemployment* in Denmark as the number of unemployment immigrants divided by the size of the immigrant labor force in a municipality. Both variables are measured on 0 to 100 scales.

Measuring immigrant diversity is more complicated. First, the characteristic along which diversity is measured must be selected. As described in the theory section, diversity along several different attributes has the potential to reduce negative stereotyping and discrimination. In this analysis, I focus on origin-country diversity. Immigrants' origin-countries are a relevant trait because origin often impacts many other traits which matter for distinguishing immigrants from one another, such as names, language, ethnicity, race, culture, cuisine, traditions, and religion. Further, national origin is a trait salient to natives: immigrant neighborhoods are labeled by country (e.g. "Little Italy" and "Koreatown") and country of origin is often one of the first questions natives ask of immigrants and their descendants. Given this, national origin is a trait we would expect natives to use when forming attitudes toward immigrants. Finally, an advantage of origin-country over other traits such as ethnicity and religion is that the origin-countries of immigrants can be easily and accurately measured using government records.

Conceptually, measuring immigrant diversity requires constructing a measure that captures two features of an immigrant population. First is the number of groups repre-

sented in an immigrant population. The more groups there are, the higher immigrant diversity is. Second is the relative size of each group. The more equally sized the groups are, the higher the level of diversity. An effective measure of immigrant diversity therefore must simultaneously count the number of groups and their relative sizes. My measure of immigrant origin-country diversity, *Effective Number of Immigrant Communities (ENIC)*, is designed to meet this goal. Based on Laasko and Taagepera's (1979) "Effective Number of Parties" measure, it is calculated according to the formula

$$ENIC = \frac{1}{\sum c_i^2}$$

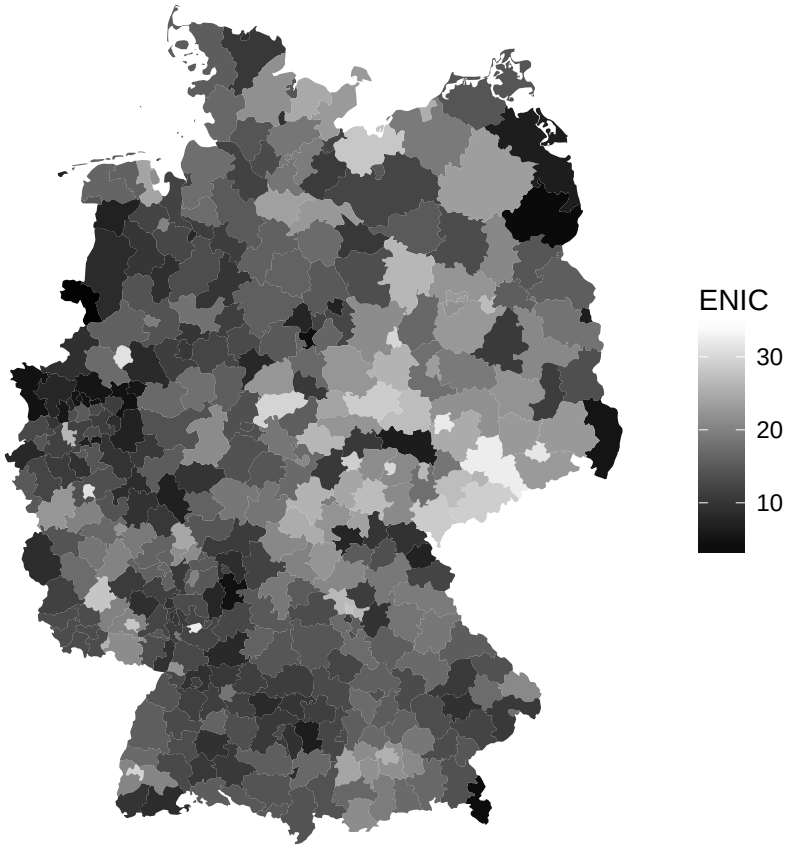
where the c_i are the share of the total immigrant population from each origin-country. Crucially, this formula responds to both the number of groups and the relative size of each group. The more groups there are, the higher *ENIC* will be, all else equal. However, the less equally sized these groups are, the lower *ENIC* will be. This is intuitive given the above definition of diversity as maximized when, holding the number of groups constant, all groups are of equal size. The contribution of any single group to *ENIC* may be positive or negative: a group that makes up a large share of the population decreases diversity and hence, *ENIC*. A group that is relatively equally sized to other groups increases diversity (and *ENIC*). For example, *ENIC* is 1 when all immigrants in a population hail from a single country. If another group with the same number of immigrants were added to the population, the new *ENIC* value would be 2. Adding a third group that is equal to the population of the first two groups combined would decrease *ENIC*. In contrast, adding a third group that is smaller than the two original groups would increase *ENIC*, but by less than 1. In Germany, *ENIC* is constructed based on administrative records of the citizenship of immigrant populations at the district level. In Denmark, *ENIC* is constructed using records of the origin country of immigrant populations at the municipal level.

Figures 3.1 and 3.2 map immigrant diversity, using *ENIC*, across the subnational units

of Germany in 2014 and Denmark in 2000. Both maps show substantial variation across locales in immigrant diversity. At the high end, there are locales in both countries with more than 30 effective immigrant communities, and similarly, both countries also contain locales with fewer than 10 effective communities. In Germany, we see that immigrant diversity tends to be higher in East Germany, save for districts bordering Poland. The lowest levels of diversity are concentrated in the west, especially in the state of North Rhine-Westphalia, which was the destination for a large share of the guest workers who arrived in the 1960s. Turning to Denmark, we see that diversity is highest in the east, where the capital and primary immigrant destination of Copenhagen is located. In contrast, the lowest levels of immigrant diversity can be found in the municipalities in the southwest of the country, especially those near the southern border with Germany. However, variation exists across the country, with higher levels of diversity also seen in municipalities on the main peninsula of Jutland.

To account for alternative explanations and potential confounders, I include several control variables in the analysis. *Population* (number of residents) and *Population Density* (number of residents per square kilometer) account for the possibility that more populous and denser areas are more attractive destinations for immigrants from a wide variety of origins. This is due to the density of services, availability of low-cost housing, and strong employment opportunities in these localities. *Immigrant Proportion* (number of immigrants divided by the total population) accounts for the size of the overall immigrant population, which can impact immigrant labor market success both by increasing competition among immigrants but also by provoking higher threat among natives. All three of these variables are log transformed in the regressions below to account for skewed distributions and potential non-linearity in their effects on immigrant economic integration. The *Unemployment* rate among all residents is also included in the model. This variable accounts for the overall economic situation in a district/municipality, and is important to control for as it can impact both immigrants' migration decisions and their likelihood of finding employment. As with *Immigrant Unemployment*, this variable is measured as

Figure 3.1: Immigrant Diversity in Germany, 2014

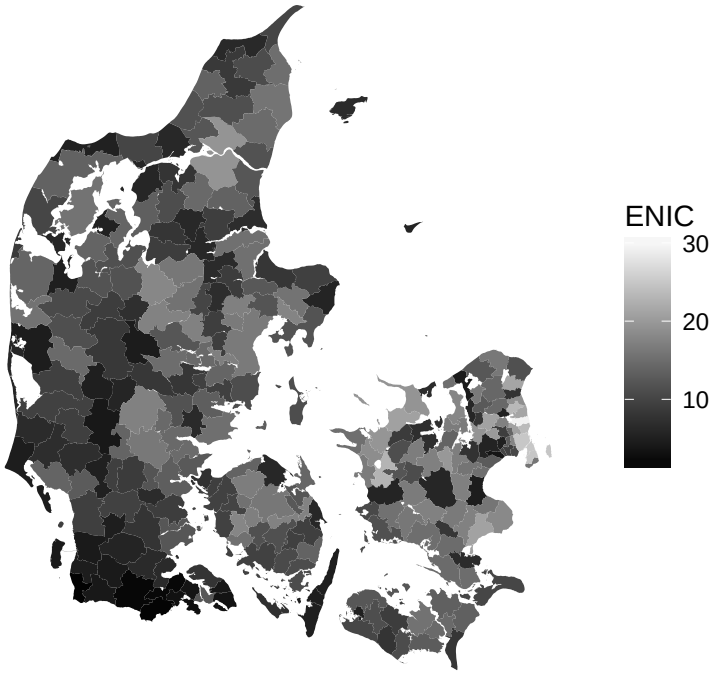


Note: ENIC is calculated using data on immigrant populations from the Federal Statistical Office.

the percentage of unemployed individuals in the total population in Germany and as the number of unemployed individuals in the labor force in Denmark.

I control for two other characteristics of local immigrant populations: *Muslim Share* (proportion of total immigrants from majority Muslim countries) and *Western Share* (proportion of total immigrants from Western countries). Given well documented Islamophobia among Europeans (e.g. Dancygier and Laitin 2014; Hainmueller and Hangartner 2013) and the difficulty Muslims have had integrating (Adida, Laitin and Valfort 2016), accounting for Muslim population size allows me to rule out the possibility that the positive effects of diversity are merely the consequence of small Muslim communities in diverse locales. Similarly, immigrants from other Western countries are not only highly skilled and highly educated, but also more culturally similar to Germans and Danes than

Figure 3.2: Immigrant Diversity in Denmark, 2000



Note: ENIC is calculated using data on immigrant populations from Statistics Denmark. The five municipalities comprising the island of Bornholm are omitted to save space.

Non-Western immigrants. As such, we would expect Western immigrants to face less discrimination and also to be more successful in integration. Accounting for the share of these immigrants in a district/municipality allows me to rule out the possibility that diversity's positive effects are due to concentrations of Western immigrants who increase diversity but would integrate well in any context.

Finally, I include two controls specific to Germany. *Urban District* is a dummy variable indicating that a district is classified as urban (*Kreisfreie Stadt*) as opposed to rural (*Landkries*). These classifications have some impact on the administrative responsibilities and structure of the local governments, which has the potential to impact immigrant economic integration. Finally, *East Germany* is an indicator for districts in the five states that were part of the former German Democratic Republic. East Germany's economy is less well developed than the West's, and the immigrant populations in East Germany are both newer and smaller than their West German counterparts. The East's history therefore has the potential to impact the structure of the immigrant population as well as

their economic integration. Summary statistics for both the German and Danish datasets are available in Appendix B.1.

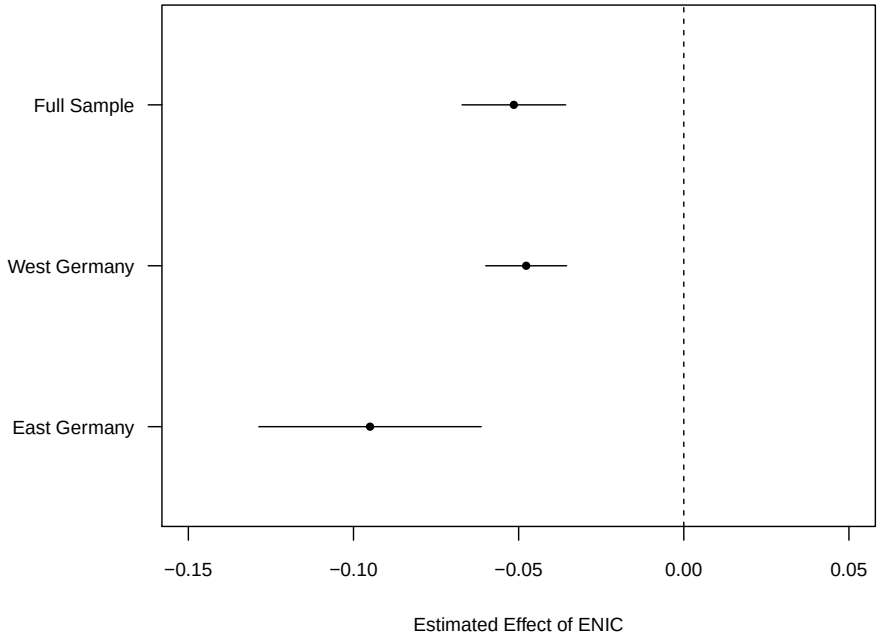
3.6 Results

Does immigrant diversity improve integration? To answer this question, I fit a series of multilevel linear models to both the German and Danish datasets using the variables described above. To account for unmeasured differences across localities, I include random intercepts for districts and states in the model for Germany and random intercepts for municipalities and counties in Denmark. Similarly, I account for unmeasured temporal differences by including random intercepts for year in all models. My modeling strategy means that the estimated effect of ENIC combines within-unit and over-time effects. This is in line with the theoretical argument, which expects diversity's positive impacts to be felt both within and across locales. Starting with Germany, I present the results for each country separately below. After presenting the main results, I investigate whether reverse causality explains my results using the case of the Øresund Bridge.

3.6.1 Germany

I fit three models of integration with the German dataset: a model of the full German sample, a model including only the 11 states of the former West Germany, and a model including only the 5 states of the former East Germany. Fitting a model to the full dataset is useful as it gives an estimate of the overall effect of diversity across Germany. Fitting models to the two subsamples helps probe the generalizability of the estimates from the full sample. Specifically, the variation between East and West Germany in terms of unemployment and immigrant population composition creates two quite different contexts in which integration proceeds. Economically, the West is much stronger: the average unemployment rate in for districts in the East is 7.97, while it is only 3.55 in the West. In contrast, immigrant populations in East Germany are both smaller and more diverse: on average, a district in East Germany has a population made up of only 1.8%

Figure 3.3: Estimated Effects of *ENIC* on *Immigrant Unemployment* in Germany



Note: Points represent estimates from multilevel linear models with 95% confidence intervals. Each point represents the estimate of *ENIC* from a different model with y-axis labels indicating the regions included in the model.

immigrants from 19 effective immigrant communities while a district in West Germany has a population made up of 8.2% immigrants from 12 effective immigrant communities. Political attitudes toward immigrants are also quite different in the two regions: the right-wing party Alternative for Germany's average vote share in state elections in the Eastern states is 15.5%, while it is only 8.6% in Western states.

Figure 3.3 presents the main quantity of interest from these models: the estimated effect of *ENIC* on *Immigrant Unemployment*. The solid circles in Figure 3.3 are the point estimates for *ENIC*, while bars indicate 95% confidence intervals. Full regression tables, including estimates for the control variables, are available in Appendix B.2.

My main finding is that integration is more successful in districts with higher immigrant diversity, as measured by *ENIC*. For all three samples, the estimated effect of *ENIC* is both negative and significant. To contextualize the estimated effect for the full sample, -0.05, the predicted difference in *Immigrant Unemployment* between a high (1 standard deviation above the mean) diversity district and low (1 standard deviation below the

mean) diversity district is -0.64. In other words, *Immigrant Unemployment* is predicted to be more than a half point lower in high diversity districts. At the average level of *Immigrant Unemployment* in the German data set, 7.56, an effect of this size would represents a decrease of approximately 8.4%. That this effect is present despite the inclusion of a large battery of controls accounting for confounders and alternative explanations, such as the overall unemployment rate, the share of Westerners and Muslims among local immigrant populations, and the size of the immigrant population, suggests that the effect of immigrant diversity is not easily explained away and further supports the theoretical argument.

Turning to the models for East and West Germany, Figure 3.3 shows that *ENIC* has a significant effect in both regions, and that the effect is approximately twice as strong in East Germany. Using the same predicted difference in *Immigrant Unemployment* between high and low diversity districts as above, the East German model predicts an *Immigrant Unemployment* difference of -1.08 percentage points and the West German model an *Immigrant Unemployment difference* of -0.53 percentage points. These results show that diversity and integration are associated in both a wealthy, relatively cosmopolitan region with many immigrants (West Germany) and in a poorer, less cosmopolitan region with fewer immigrants (East Germany). The larger effect size in East Germany further suggests that immigrant diversity's positive effects may be greater in areas where there are more obstacles to integration.

3.6.2 Denmark

Similar to the analysis of the effects of immigrant diversity in Germany, I fit three multilevel linear models to the Danish data. The first model uses all of the available data to estimate the effect of diversity for all immigrants across the entire country. The other two models using the Danish data estimate the effect of diversity separately for Western and Non-Western immigrants. This is possible because Statistics Denmark publishes unemployment rates at the municipal level not only for all immigrants, but also for two

subgroups of immigrants: immigrants from Western and immigrants from Non-Western countries.[2] To implement these subgroup analyses, I create six new variables. First, *Western Immigrant Unemployment* and *Non-Western Immigrant Unemployment* serve as the outcome variables for these analyses, each calculated in the same manner as *Immigrant Unemployment* but by including only Western or Non-Western immigrants in lieu of all immigrants. Second, I create measures of diversity for the separate origin-country categories: *ENIC – Western* and *ENIC – Non-Western*. Finally, I replace *Immigrant Proportion* with *Western Immigrant Proportion* and *Non-Western Immigrant Proportion*, which are calculated as the proportion of Western and Non-Western immigrants in the total population.

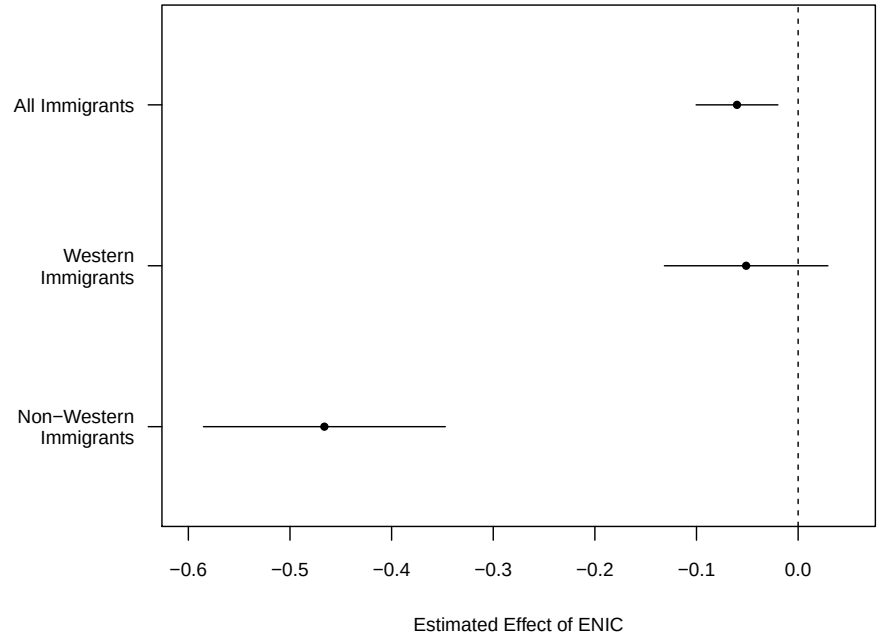
Figure 3.4 presents the key quantity of interest from the three Danish models: the estimated effect of *ENIC* on *Immigrant Unemployment* (both measures are calculated among all, Western, or Non-Western immigrants, depending on the model). Points on Figure 3.4 represent the estimated effect, and the bars represent 95% confidence intervals. The corresponding regression tables, including estimates for control variables, are in Appendix B.2.

My findings in Denmark further conform to the main empirical implication of theoretical argument, namely that immigrant diversity leads to successful integration. In the model using all immigrants, regardless of origin, the estimated effect of *ENIC*, -0.06, is both significant and negative. Returning to the same comparison of high and low diversity locales as used in the section on Germany, this effect size for *ENIC* implies an *Immigrant Unemployment* difference of 0.57 percentage points between high and low diversity municipalities.

Figure 3.4 also shows a wide disparity in the effect of *ENIC* between Western and Non-Western immigrants. For Western immigrants, there is no relationship between *ENIC* and their unemployment rates. The estimated effect for Western immigrants is slightly less

[2]I use Statistics Denmark's classification of countries as Western or Non-Western in my analysis; see Appendix B.1 for the specific set of countries included in each category.

Figure 3.4: Estimated Effects of *ENIC* on *Immigrant Unemployment* in Denmark



Note: Points represent estimates from multilevel linear models with 95% confidence intervals. Each point represents the estimate of *ENIC* from a different model, with y-axis labels indicating the immigrant groups used to calculate *ENIC* and *Immigrant Unemployment* in the model.

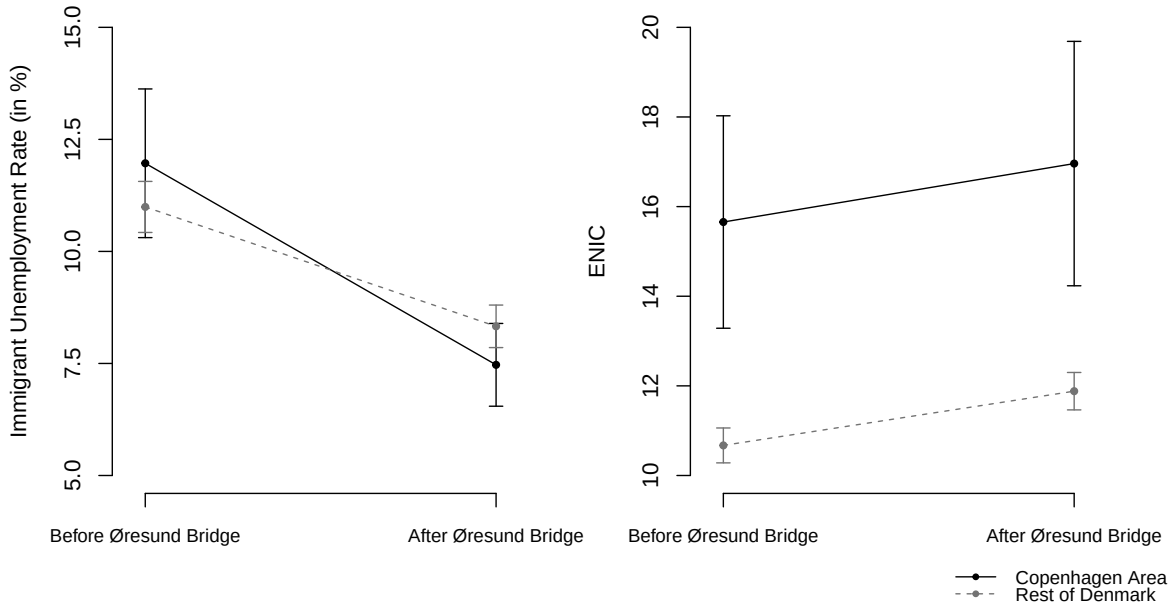
than for all immigrants, but the standard errors mean it is not statistically distinguishable from an effect of zero. In contrast, the effect of *ENIC* for Non-Western immigrants is very large and statistically significant. Compared to the effect of *ENIC* among all immigrants (-0.06), the estimate for just Non-Western immigrants (-0.47) is almost seven times larger. In substantive terms, this effect size indicates that the difference in *Non-Western Immigrant Unemployment* between a high diversity and low diversity municipality would be 3.43 percentage points. Compared to the average unemployment rate for Non-Western immigrants of 18.32, a decrease of 3.43 percentage points would represent a 20% decrease. The positive effects of diversity appear to be almost entirely driven by diversity among Non-Western immigrants. Combined with the results in Germany, the analysis suggests that not only is diversity more beneficial in places where integration is more difficult, but also that diversity is more beneficial to immigrants who otherwise face the most challenges to integration.

3.7 Testing for Reverse Causality: the Case of the Øresund Bridge

While the above results show an association between integration and diversity, they do not establish a causal relationship running from diversity to integration. It may instead be the case that causality occurs in the other direction: successful economic integration may motivate immigrants from a diverse set of countries to migrate, increasing immigrant diversity. Using the case of the Øresund Bridge, which was opened in 2000 and connects the cities of Copenhagen, Denmark and Malmö, Sweden, I am able to test this alternative explanation. The opening of the bridge made commuting between Denmark and Sweden much easier, and consequently expanded the markets for companies operating in the Copenhagen area, increasing the pool of potential jobs available to populations on both sides of the bridge. This increase in economic opportunity occurred without any changes to other factors which may have made the Copenhagen area a more desirable destination for immigrants: natives' attitudes did not change, the housing stock in Copenhagen did not change, Copenhagen's schools were not improved, nor did its municipal policies change. If increased economic opportunity is indeed a driver of immigrant diversity, then the opening of the Øresund Bridge should have caused diversity to increase in the Copenhagen area.

To test this hypothesis, I first assess whether immigrant employment increased in the Copenhagen area following the opening of the bridge, and then test whether immigrant diversity also increased in the years following the bridge's opening. Specifically, I consider exposure to the Øresund Bridge as a treatment that impacted municipalities in the Copenhagen area in the years after 2000. I estimate the effect of this treatment using a difference-in-differences design. This design compares the change in *Immigrant Unemployment* before and after the bridge's opening in the Copenhagen area to the change in *Immigrant Unemployment* in rest of Denmark. The left panel of Figure 3.5 plots this difference-in-differences relationship graphically, with points representing the average immigrant unemployment rate in the Copenhagen area and the rest of Denmark in the two

Figure 3.5: The Effect of the Øresund Bridge on Economic Integration and Diversity



Note: Points represent group averages with 95% confidence bars around them. The before period includes 1998 and 1999, and the after period includes 2001 and 2002.

years before and two years after the bridge's opening. Based on the parallel trends assumption, if there were no effect we would expect the slope of the lines connecting the averages to be the same for both regions. This is not what the plot shows. Instead, the immigrant unemployment rate dropped much more in the Copenhagen area than it did in the rest of the country. As regression analyses available in the Appendix B.3 indicate, this difference is statistically significant and is substantively meaningful: immigrant unemployment was 1.8 percentage points lower after the bridge's opening than would be expected in the absence of the bridge.

Having established that the opening of the bridge improved immigrant's economic integration in comparison to what we would have expected, I now turn to assessing whether immigrant diversity increased in the same period. Based on the reverse causation argument, if immigrant diversity is a consequence of integration, then we would expect to see diversity increase in the Copenhagen area relative to the rest of Denmark in the years after the bridge's opening. The right panel of Figure 3.5 tests this expectation, comparing the temporal change in ENIC between the Copenhagen area and the rest of Denmark.

Figure 3.5 shows that *ENIC* increased in both areas over the time period, but does not show any evidence that diversity increased at a higher rate in the Copenhagen area in comparison to the rest of Denmark; in fact, regression analysis in Appendix B.3 shows that the two slopes are statistically indistinguishable. That there is no evidence of an increase in diversity after the bridge's opening indicates that the relationship between immigrant diversity and economic integration shown in Figures 3.3 and 3.4 is not due to reverse causation.

3.8 Mechanism Analysis: Immigrant Diversity and Natives' Attitudes

Having established an empirical link between immigrant diversity and integration and ruling out reverse causality as an explanation of this link, I now turn to a test of the main casual mechanism linking diversity and integration in my theory: immigrant diversity's impact on natives' attitudes. Specifically, I argue that increasing levels of immigrant diversity prevent the development and use of negative stereotypes, thereby reducing anti-immigrant attitudes. To test this mechanism, I developed and implemented an original conjoint survey which allows me to estimate the causal effect of immigrant diversity on attitudes toward immigrants.[3]

3.8.1 Experimental Design

Conjoint experiments allow researchers to elicit respondents' preferences over the individual dimensions of a multidimensional phenomenon by repeatedly asking respondents which of multiple examples of the phenomenon they prefer. They have been successfully used in political science research (e.g. Bechtel and Scheve 2013; Hansen, Olsen and Bech 2015), especially in the study of immigration attitudes (e.g. Hainmueller and Hopkins 2015; Bansak, Hainmueller and Hangartner 2016). In the current context, each choice task presents respondents a pair immigrant groups and asks them which group they would

[3]This experimental design was preregistered on egap.org, study ID 20161110AD. The experimental analysis presented in this section follows the procedures set out in the pre-analysis plan.

prefer to be settled in their community. Respondents complete four choice tasks.

Nine attributes, or pieces of information, about the immigrant groups are presented to respondents in the group profiles. The first seven attributes describe the group's composition by origin country, and together are used to randomize levels of immigrant diversity. First, *Group Size* is fixed at 60 for all groups, ensuring that preferences over groups are not influenced by respondent's preferences on the number of immigrants to settle. The next six attributes describe the number of immigrants in the group from each of six countries: *Afghanistan*, *Albania*, *Eritrea*, *Nigeria*, *Serbia*, and *Syria*. These six countries were chosen to maximize the realism of the groups: each of these six countries had at least 5,000 asylum applicants in Germany in 2015 (Bundesamt für Migration und Flüchtlinge 2015). They also offer balance between regions, as there are two countries each from Europe, Asia, and Africa. The order in which the countries are presented is randomized across respondents but is constant for each respondent across the four choice tasks.

Allocation of the 60 immigrants to the 6 origin-countries is determined by the *Diversity* treatment, which is randomly selected between *Low*, *Medium*, or *High* for each profile. Each level of *Diversity* is a vector of six non-negative integers that sum to 60; these six values represent the number of immigrants from each the six origin-countries. Table 3.1 shows how each of these three treatments divides 60 into six parts. The *Low* diversity treatment assigns all 60 immigrants a single country. In the *Medium* diversity treatment, three of the six countries are represented in the group, although one country clearly makes up a larger share of the group than the other two. The *High* diversity treatment maximizes diversity, as all countries are represented in the group in equal size. After a group has been assigned a level of *Diversity*, the order of the six numbers in the diversity vector are randomized before being assigned to the origin-countries. This randomization ensures that diversity and the number of immigrants in any given origin-country are independent.

Education and *Young Men* are the two remaining attributes included in the immigrant profiles. Their inclusion increases the realism of the groups and ensures that any estimated

Table 3.1: Three Diversity Scenarios

	Low	Medium	High
Country 1	60	30	10
Country 2	0	20	10
Country 3	0	10	10
Country 4	0	0	10
Country 5	0	0	10
Country 6	0	0	10
Total	60	60	60

Note: Cells represent numbers of immigrants.

effects of *Diversity* cannot be explained by a lack of other relevant information. *Education* describes the share of the group with a university education. This is randomly selected from 0%, 10%, 20% and 30%. These levels also reflect reality: estimates suggest that about 20% of the recent asylum seekers entering Germany attended university (Rich 2016).[4] *Young Men*, which is the share of men under age 25 in the group, is randomly selected from 0%, 25%, 50%, 75% and 100%. These values also represent reality: the German Federal Office of Migration and Refugees reports that approximately 38% of asylum seekers entering Germany in 2015 were young men (Bundesamt für Migration und Flüchtlinge 2015). Together, these two attributes provide substantial and relevant information for respondents to use when evaluating immigrant groups. Not only are the levels of these attributes reflective of the current trend in migration in Germany, but levels of education, age and gender are known to be significant predictors of attitudes towards immigrants (Bansak, Hainmueller and Hangartner 2016; Hainmueller and Hopkins 2015).

Table 3.2 presents an example pair of immigrant groups. Among the attributes, information about origin-countries was always presented first, with the number of immigrants per origin-country shown above the total group size. *Education* or *Young Men* were shown below the origin information; the order of these two traits is randomized across respondents and then held constant across the choice tasks.

[4]Unfortunately, estimates of how many of these 20% had finished their studies are unavailable. However, assuming that half of those attending received a degree, it is plausible that a group of 60 immigrants could contain 20 individuals with a degree.

Table 3.2: Example Immigrant Groups

	Group A	Group B
Number of immigrants per country:		
Syria	0	30
Afghanistan	0	20
Albania	60	0
Eritrea	0	10
Nigeria	0	0
Serbia	0	0
Total	60	60
Group Traits:		
Share with university education	0%	20%
Share of male immigrants under age 25	25%	50%

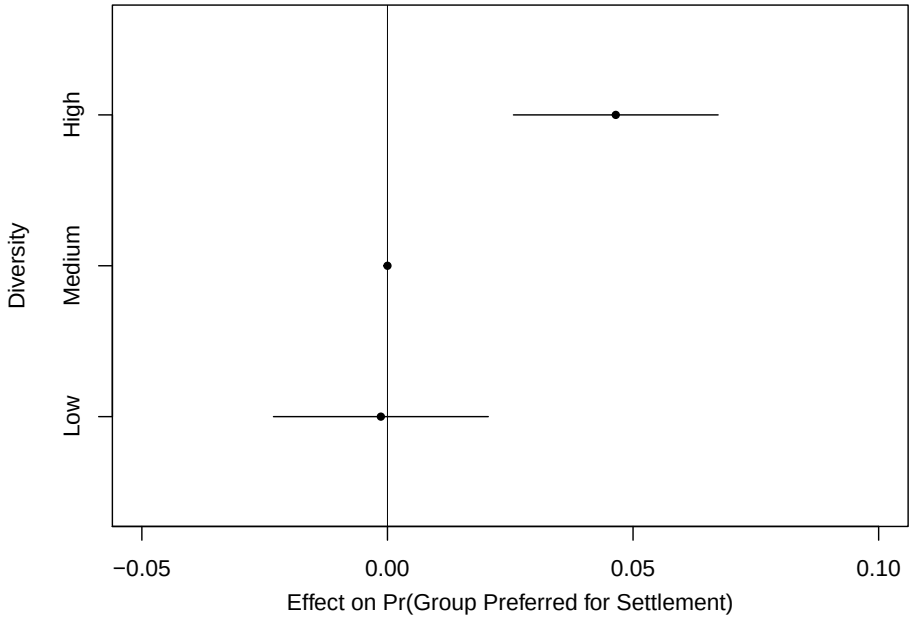
After viewing the two immigrant group profiles, respondents were asked which of the two groups they would prefer to have settled in their community. Responses to this question form the outcome variable *Settlement Preference*: an indicator variable taking on the value of 1 for the selected group and 0 for the other group. Because this question requires respondents to select one of two groups, it separates attitudes toward groups from attitudes towards immigration overall. Other studies (e.g. Hainmueller and Hopkins 2015) have used a similar question to successfully measure attitudes toward immigrants.

3.8.2 Experimental Results

The experiment was administered to a sample of 2,130 adult, voting-eligible German respondents between December 23 and December 30, 2016.[5] Immigrant groups are the unit of analysis, and the key quantity of interest is the effect of *Diversity* on *Settlement Preference*. More specifically, I am interested in the effect of a diversity level on the probability that a group is preferred for settlement. I use a weighted OLS regression to estimate this quantity, where the weights adjust for differences between the sample and German pop-

[5]The sample was provided by Respondi; programming and hosting of the survey was done on Qualtrics. Details about the sampling process, survey implementation, and descriptive statistics are available in Appendix B.4.

Figure 3.6: Effects of Group Diversity on Probability of Being Preferred for Settlement



Note: Points represent the effect of diversity levels on the change in probability of being preferred for settlement in comparison to the baseline category, medium. Bars represent 95% confidence intervals around OLS estimates with standard errors clustered by respondent.

ulation on age, state, gender, and education.[6] *Diversity* enters the regression as a pair of dummy variables, one for *High* and one for *Low*, leaving *Medium* as the baseline category. I also include coefficients in the regression for *Education* and *Young Men*. Standard errors are clustered by respondent to account for autocorrelation generated by the forced choice outcome variable (Hainmueller, Hopkins and Yamamoto 2014). Figure 3.6 presents the estimated effects of *Diversity*; the corresponding regression table, including estimates of the effects of *Education* and *Young Men*, can be found in Appendix B.5.

Figure 3.6 reveals a significant and positive effect of high immigrant diversity on natives' attitudes, in accord with the empirical implication of the theoretical argument. The coefficients can be interpreted as the change in a group's probability of being preferred for settlement caused by a change in *Diversity* from medium to high or low. According to this interpretation, the estimate of 0.044 for high diversity indicates that high diversity groups were selected at a rate 4.4 percentage points higher than medium diversity groups. This effect is statistically distinguishable from both zero and the estimated effect of low

[6] As I show in Appendix B.5, my results are robust to using the unweighted data.

diversity, showing that when given the choice, respondents prefer that high diversity immigrant groups are settled their community over low and medium diversity groups. In contrast, the estimate for low diversity is very close to zero and is not statistically distinguishable from zero. Respondents did not differentiate between the low and medium diversity levels when selecting groups for settlement.

Calculating the *ENIC* values for the three levels of diversity helps contextualize the results. In the low diversity condition, *ENIC* is 1: all immigrants are from a single country. In the medium diversity condition, *ENIC* rises slightly, to 2.57. Finally, *ENIC* in the high diversity condition is 6. That there is no significant difference between the low and medium diversity groups, an *ENIC* gap of 1.57, suggests that small differences in diversity do not trigger attitude changes. In contrast, the *ENIC* gaps between high and low as well as high and medium are 5 and 3.43, respectively. At these higher levels of *ENIC* difference, diversity does cause attitudes do change. This implies that while slight changes in diversity may be too subtle to alter natives' attitudes, more substantial changes are indeed noticed by natives and do prompt a change in attitudes.

3.9 Conclusion

Though immigrant populations vary substantially across localities, the consequences of these variations for successful integration are not well known. I contribute by developing an argument that connects immigrant diversity to successful integration. Specifically, I argue that immigrant diversity leads to more successful integration because diverse immigrant groups are less likely to provoke negative stereotyping, anti-immigrant attitudes, and discrimination.

Analyzing data from over 700 localities in Germany and Denmark covering more than 30 years, I find that immigrant unemployment is substantially lower when immigrants are more diverse. The findings are equally strong in Denmark, West Germany, and East Germany, indicating that the positive effect of diversity is not extremely contingent upon a particular economic context, immigration policy regime, or political context. Further

evidence leveraging the construction of the Øresund Bridge in Denmark shows that reverse causality is unlikely to be responsible for my findings. I also conducted an original survey experiment to test the impact of diversity on attitudes toward immigrants. The survey results show a causal effect of diversity on natives' attitudes, with high diversity groups being preferred over low diversity groups. Considering all of this evidence together, I conclude that immigrant diversity plays an important role in integration and the formation of natives' attitudes toward immigrants. More broadly, my findings show that the demographics of immigrant populations need to be considered alongside other contextual variables in order to fully understand immigrant integration.

A nuance of my findings is that the effect of diversity is much stronger for Non-Western immigrants than for Western immigrants. Given that Non-Western immigrants are often the main target of anti-immigrant attitudes and discrimination (Dancygier and Laitin 2014; Hainmueller and Hopkins 2014), they are the immigrants for whom integration is often most challenging. Consequently, understanding how to improve integration for this group is especially crucial. My findings show that immigrant diversity is one pathway for improving this group's integration, and that diversity has this effect by reducing natives' opposition to these groups. While I have tested the impact of diversity on employment, the overall benefits of immigrant diversity likely extend beyond employment. Natives' attitudes matter for other fields of integration (e.g. political representation and citizenship), and it is likely that immigrant diversity has positive impacts in these areas as well.

For policy makers interested in both the successful integration of immigrants and minimizing native backlash, these findings are highly relevant. Many European countries implement spatial dispersion programs, in which newly arrived refugees are assigned to reside in a locale by the central government. Typically, these programs aim to distribute refugees evenly among regions of the country. My results suggest designing spatial dispersion policies to maximize immigrant diversity could produce long-term benefits in the form of successful integration. However, trade-offs in the form of initial difficulties that would arise for refugees assigned to locations where few of their co-ethnics reside would

also need to be considered. These results have similar implications for how policymakers allocate entry visas: quotas encouraging immigration from a wide variety of sending countries are likely to lead to less native backlash and more successful integration than policies targeting immigrants from a small group of countries.

Finally, this study has not examined the universe of immigrant diversity's potential impacts on integration or natives' attitudes. My argument prioritizes the impact of immigrant diversity on natives' perceptions and attitudes toward immigrants. Immigrant diversity also has the potential to impact immigrants' behaviors directly. For example, high immigrant diversity may limit the size of immigrants' social networks, prevent the formation of ethnic enclaves, and impede collective action among all immigrants in a locale. The impacts of these behavioral consequences of diversity on integration may be both positive and negative. Fewer enclaves may improve immigrant-native relations, while higher costs of collective action may prevent immigrants from getting politicians to respond to their concerns. Investigating these behavioral consequences of diversity is an important task for future research.

Chapter 4

Welcome or Worry: How Do Natives Receive Young Immigrant Men?

4.1 Introduction

A central topic of the public discourse about the European refugee crisis has been the large share of young men among the asylum seekers. Media outlets have written numerous stories depicting these young men as a problem, highlighting their aggressive behavior[1] and their need to be taught European gender norms.[2] Some stories even have titles as blunt as "Abnormal number of young men a problem for Sweden."[3] Politicians have been quick to politicize these young men. Geert Wilders, leader of the anti-immigrant Party for Freedom in the Netherlands, said "Masses of young men in their twenties ... [are] ... an invasion that threatens our prosperity, our security, our culture and identity."[4] The head of the Alternative for Germany in Berlin said there are " ... increasing problems with these so-called groups of young men."[5] All of this has led commentators to describe these young men as the "horror of the west,"[6] causing fear among the public.[7]

[1] "Extrem fordernd, unzuverlässig und aufdringlich," *Die Welt* (2016, January 17).
[2] "Norway Offers Migrants a Lesson in How to Treat Women," *The New York Times* (2015, December 19).
[3] "Abnorma antalet unga män ett problem för Sverige," *Göteborgs-Posten* (2016, January 19).
[4] "Wilders tells Dutch parliament refugee crisis is 'Islamic invasion'," *Reuters* (2015, September 10).
[5] "Berliner AfD-Politiker Fest nennt Zuwanderer 'Gesindel'," *Der Tagesspiegel* (2017, March 29).
[6] "Männer, Monster und Muslime," *Der Spiegel* (2015, November 2).
[7] "Flüchtlinge und deutsche Frauen: Eine Armlänge Unsicherheit," *Der Spiegel* (2016, April 19).

To what extent is this a reflection of the real fears of the European public? Perhaps these sentiments are an example of the hyperbole common among the media and politicians. It is equally plausible that young male immigrants are actually preferred because of their economic potential, which has been shown to positively affect natives' attitudes toward asylum seekers (Bansak, Hainmueller and Hangartner 2016). That is, in demographically ailing European societies these young men can fulfill labor shortages and are unlikely to pose as great of a burden on the welfare state as women and older immigrants. Indeed, Germany's labor minister has argued that investing in the education of these young new arrivals is good for Germany.[8] In line with this, current scientific evidence on European attitudes towards asylum seekers finds no widespread opposition to young men: replicating Bansak, Hainmueller, and Hangartner's (2016) analysis shows acceptance of young men is equal to the acceptance of old women and middle-aged men, and greater than the acceptance received by old men.[9]

However, other scholarly work on attitudes towards immigrants suggests that we should see strong public opposition to young immigrant men. First, natives are likely to see young immigrant men as posing a security threat, fearing they will make communities less safe. These concerns are known drivers of anti-immigration attitudes (Huysmans 2006; Lahav and Courtemanche 2012; Sniderman, Hagendoorn and Prior 2004), and include fears of terrorism, sexual assault, theft, and other violence. Second, opposition to young men may be fueled by the cultural threat they pose. Anxiety about the cultural impact of immigration can extend to many domains, including language (Hopkins 2015), the national identity (Sides and Citrin 2007), and norms and values (Sniderman, Hagendoorn and Prior 2004). Across these domains, a key finding is that natives who are more anxious about immigration's cultural impact are more opposed to immigration (Hainmueller and Hopkins 2014). Young immigrant men, especially those from cultures where women's role in society is restricted, are likely to pose such a threat to European

[8] "Sind die Flüchtlinge da, wo die Arbeit ist?," *Handelsblatt* (2017, March 14).
[9] Details of Bansak, Hainmueller and Hangartner (2016) replication are in Appendix C.1.

norms of relative gender equality. Further, the possibility of young men seeking family reunification could lead to cultural threat, as they may set up isolated communities with little incentive to integrate.

In this paper, I bring new evidence to bear on attitudes towards this group of immigrants. First, I test whether natives are more opposed to young immigrant men than they are to other immigrants. Second, I investigate which of the three competing mechanisms described above (economic potential, security threat, and cultural threat) best explains attitudes toward young men. My evidence comes from a conjoint experiment conducted in Germany on attitudes towards groups of immigrants with randomly varying shares of young men. To date, very little systematic research has been done on this important group. Bansak, Hainmueller and Hangartner (2016) come closest to studying attitudes toward young men by including both age and gender as attributes on their conjoint experiments. However, their study was not explicitly designed to test attitudes toward young men, but rather, was designed to study attitudes towards asylum seekers' economic and cultural characteristics and their reasons for seeking asylum.

An additional improvement of my study over previous work is my focus on groups of young immigrant men, as opposed to individuals. While focusing on individuals is important (see Bansak, Hainmueller and Hangartner 2016; Hainmueller and Hopkins 2015; Hopkins 2015; Turper et al. 2015), if we want to understand how to best settle immigrants in communities to maximize native acceptance and thereby foster integration success (Dancygier and Laitin 2014), we also need to know if natives have a bias against groups of young men (and why). After all, for logistic and other reasons, settlement is often done in groups. For example, when a refugee housing center recently opened in Berlin, 300 people were expected to move in over the course of just a few days.[10] Similarly, in the French region of Lorraine, municipalities received refugees in groups of 15, 20, 40, and 60.[11] Hence, studying the impact of group attributes has important practical relevance

[10] "Raus aus der Turnhalle, rein in die MUF," *Rundfunk Berlin-Brandenburg* (2017, January 27).
[11] "Des migrants de Calais en Lorraine," *L'Est Républicain* (2016, October 24).

for understanding public responses to the settlement of immigrants.

My findings reveal substantial opposition to groups of young immigrant men among the German public. I also find evidence that security and cultural threats underpin this opposition, with security threats being relatively more important. My results show no evidence that Germans see young men as having high economic potential in comparison to other immigrants. These results imply that (1) a concentration of young men among a group of immigrants exacerbates the political challenge of immigration, but (2) policy measures that prioritize public safety and cultural integration can significantly lessen this challenge.

4.2 Research Design

To study attitudes toward young immigrant men, I conducted a conjoint experiment in Germany.[12] Two features make Germany an appealing case. First, Germany took in the largest absolute number of asylum seekers in 2015 and 2016, and on a per-capita basis, took in more asylum seekers than every European country save Austria, Sweden, and Hungary.[13] Due to the high salience of the immigration issue, studying Germany has great practical relevance. Second, the share of young men among recent arrivals in Germany is very typical of European countries. Specifically, 41% of asylum applicants in Germany were young men in 2016, which is very close to the 42% median among all European countries.[14] This enhances the generalizability of the inferences drawn from this study.

In the conjoint experiment, respondents were asked to evaluate groups of immigrants that could potentially be settled in their community. Each group was comprised of 60 immigrants, randomly varying in terms of origin countries, education, and the share of young men in the group. Groups were presented and evaluated two at a time, and each respondent evaluated four pairs of groups.

[12]The conjoint experiment's design was pre-registered on EGAP, Study ID: 20161110AD. A copy of this pre-analysis plan can be found in Appendix D.
[13]Based on Eurostat tables "demo_gind" and "migr_asyappctza."
[14]Based on Eurostat table "migr_asyappctza." Young here refers to ages 18-34.

The key attribute is *Young Men*, which identifies the share – 0%, 25%, 50%, 75%, or 100% – of the 60 immigrants who are men under the age of 25. Allowing the share of young men to vary so substantially reflects actual demographics in Germany: as stated above, approximately 42% of asylum seekers in 2016 were young men. It is therefore plausible that some communities have received groups of immigrants with overwhelming majorities of young men.

The other two attributes – countries of origin and education levels – are included to create groups that respondents will perceive as more realistic. They also ensure that a lack of relevant information for evaluating the groups does not influence the results. First, the countries of origin are Afghanistan, Albania, Eritrea, Nigeria, Serbia, and Syria. The number of immigrants per countries was shown as an attribute, and was randomly selected as 0, 10, 20, 30, or 60, subject to the constraint that the total number of immigrants is always 60. These countries were chosen to increase the realism of the immigrant groups: at least 5,000 asylum seekers from each of these countries entered Germany in 2015 (Bundesamt für Migration und Flüchtlinge 2015). Second, *Education* presented the share of the immigrants with a university degree, and was randomly selected to be 0%, 10%, 20% or 30%. These values were also chosen to reflect the reality of asylum seekers in Germany: estimates suggest that about 20% attended university (Rich 2016).[15]

For each pair of groups, respondents were first asked "if you had to choose between them, which of the two groups would you prefer be settled in your community?" Responses are coded into a binary variable, *Settlement Preference*, which takes on 1 if a group is selected and 0 if it is not.[16] Because respondents are forced to choose one of the two groups, this item allows me to separate opposition to young immigrant men from overall opposition to immigration. This variable serves as the outcome in the main analysis below. More information on the conjoint design and an example of the groups shown to

[15] Unfortunately, estimates of how many of these 20% had finished their studies are unavailable. Nevertheless, if we assume that half of those attending received their degree, it is plausible that a group of 60 could contain 20 individuals with a degree.

[16] A similar question has been used in other prominent studies of immigration attitudes (e.g. Bansak, Hainmueller and Hangartner 2016; Hainmueller and Hopkins 2015).

respondents is in Appendix C.2.

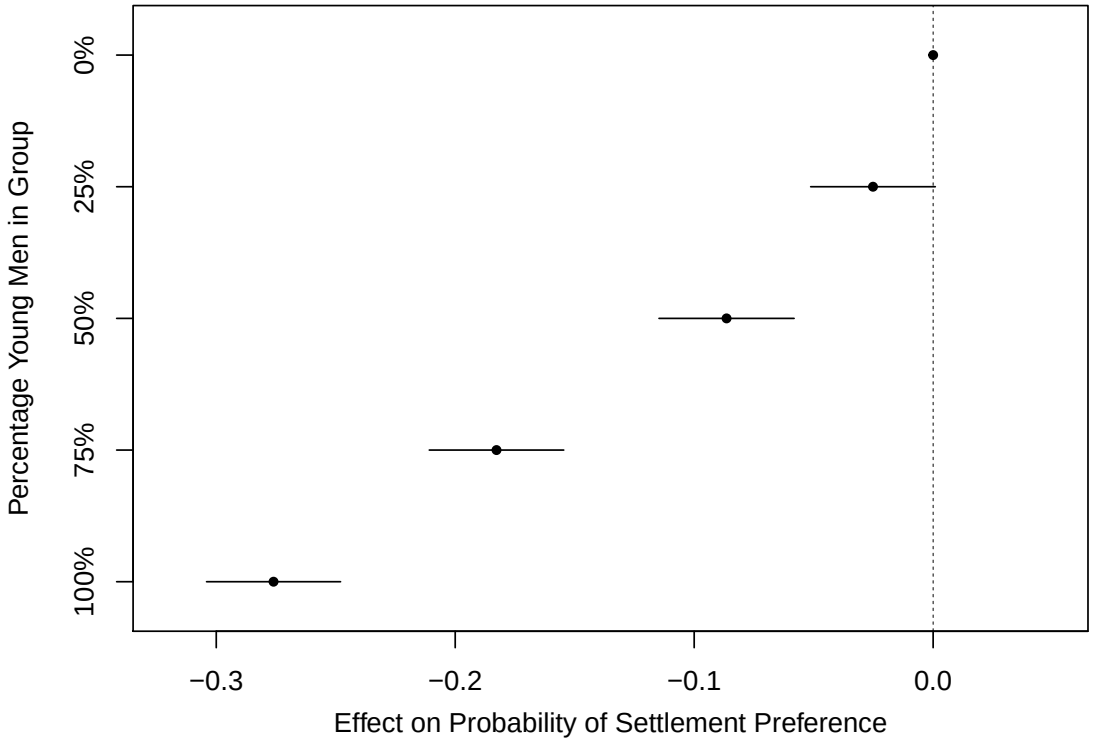
Three additional questions were asked about each group. These items are designed to test the three mechanisms proposed for explaining support or opposition to young immigrant men: *Economic Potential*, *Security Threat*, and *Cultural Threat*. Each item asked respondents to indicate their agreement (on a 7 point scale from "strongly disagree" to "strongly agree") with a statement about the group. For *Economic Potential*, the statement was "Few members of Group X will find jobs in my community." For *Security Threat*, the statement was "Group X would be a safety concern for my community." Finally, the statement for *Cultural Threat* was "Group X would adapt well to German culture." Following Bansak, Hainmueller and Hangartner (2016), each of these scales is recoded into a binary variable. For *Economic Potential* and *Cultural Threat* any of the "disagree" responses, which represent perceptions of high Economic Potential or Cultural Threat, are coded as 1. Similarly, the "agree" responses for *Security Threat* are coded as 1.

4.3 Results

The experiment was administered to a sample of 2,130 Germans in December 2016. Groups of immigrants serve as the unit of analysis, and the quantity of interest from the experiment is the effect of *Young Men* on *Settlement Preference*. This quantity is interpreted as the change in probability of being preferred for settlement caused by a change in the share of young men. These effects are estimated by weighted least squares regression, where the group attributes *Young Men* and *Education* enter as a series of dummy variables. Standard errors are clustered by respondent to account for autocorrelation induced by the forced choice outcome (see Hainmueller, Hopkins and Yamamoto 2014). Figure 4.1 presents the estimated effects of *Young Men*, the corresponding regression table is available in Appendix C.3.

The estimates indicate strong opposition to groups of immigrants with many young men. They can be interpreted as the difference in selection probability between a group

Figure 4.1: The Effect of Young Men on Preferences over Immigrant Groups



Note: Points represent OLS estimates with 95% confidence interval bars based on clustered standard errors.

and the baseline, a group with no young men. Therefore, the coefficient of 0.025 for the 25% young men groups indicates these groups are selected at a rate 2.5 percentage points lower than the group with no young men. This effect is not distinguishable from zero, and suggests that groups with a small number of young men are viewed relatively similarly as groups with no young men. In contrast, the effects for groups with more than 50% young men are all significant and substantively meaningful. When young men make up exactly half of a group, the penalty is 8.6 percentage points. The effects are even larger for the groups with majority young men: when being selected for settlement, groups with 75% and 100% young men suffer penalties of 18 and 28 percentage points to their probabilities of being preferred.

Data on the actual demographics of asylum seekers in Germany helps put these estimates in context. Because the actual share of young men among asylum seekers in Germany was approximately 42%, groups from the survey with 0% and 25% young men

represent below average numbers of young men, while the other three levels of young men are above average. Pooling groups into these two categories, and then averaging over the four levels of Education, the predicted selection probabilities for the groups with fewer than average young men is 0.6, while it is only 0.46 for the groups with more than average young men. These results suggest that deviations from the average number of young men which occur in the settlement of asylum seekers can make the difference between public support and public opposition.

Additional analyses reported in Appendix C.3 show that these attitudes are held consistently over subgroups of respondents. Specifically, the results are not meaningfully different for: (1) male and female respondents, (2) young and old respondents, (3) high and low education respondents, and (4) East and West German respondents. Among the respondents to this survey, there is a broad consensus in opposition to young men. Further, the results of a pilot study conducted among a sample of Mechanical Turk respondents in the United States show similar opposition to groups of young men.[17] This indicates that anti-young immigrant men attitudes are not specific to Germany.

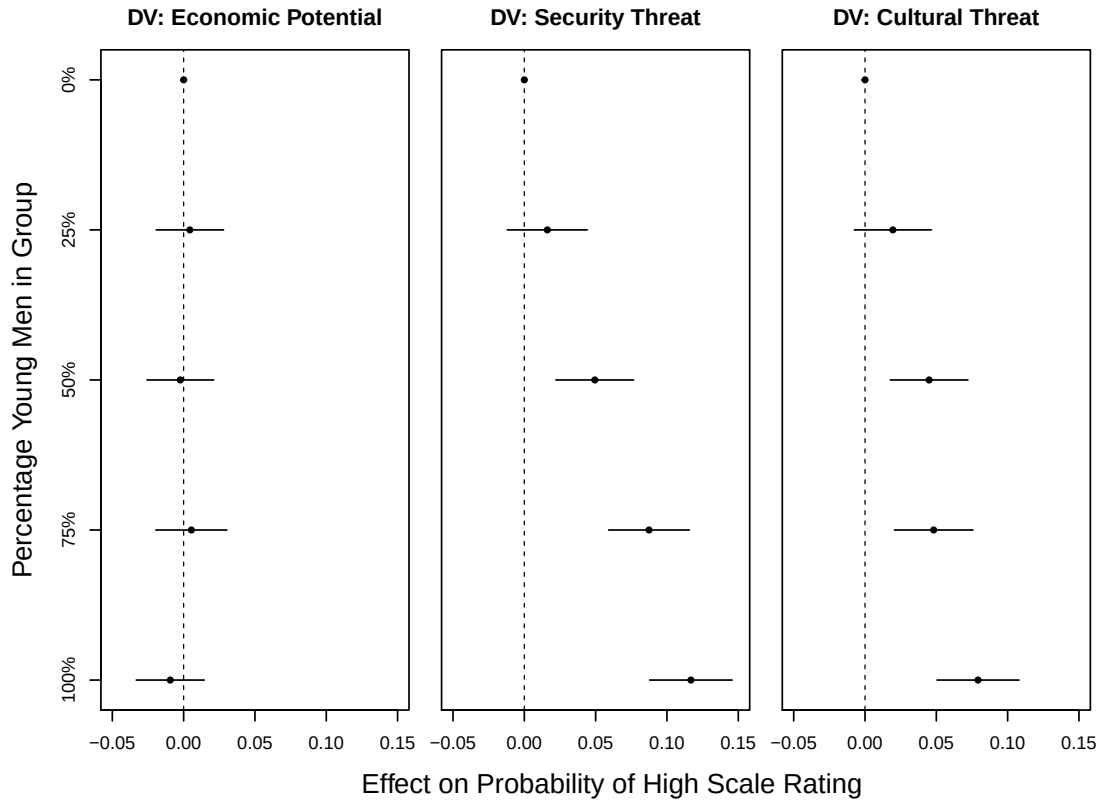
4.4 What Explains These Attitudes?

Having established that a large share of young men in a group of immigrants provokes native opposition, I now turn to exploring three proposed explanations for these attitudes: *Economic Potential*, *Security Threat*, and *Cultural Threat*. To do this, I fit a weighted OLS regression for each of these scales. As above, these models have standard errors clustered by respondent and *Young Men* and *Education* each enter the regression as a series of dummy variables. Figure 4.2 presents the estimated effects for *Young Men*; the corresponding regression table can be found in Appendix C.3.

First, I investigated whether respondents perceived young immigrant men as more likely to find jobs, thereby contributing to the German economy. Given that young men are in their prime earning years and are very likely to enter the work force, it is reasonable

[17]Pilot study details and results reported in Appendix C.4.

Figure 4.2: The Effect of Young Men on Group Evaluations



Note: Points are OLS estimates with 95% confidence interval bars based on clustered standard errors.

to expect respondents to see them as likely to find work. The results in the first panel of Figure 4.2 show that this is not the case. Instead, none of the estimated effects of *Young Men* on *Economic Potential* are significantly different from zero, and most of the estimates are close to zero. Hence, respondents are not any more optimistic about young men's ability to find jobs than other immigrants' ability.

The second panel of Figure 4.2 analyzes whether young men are provoking a higher *Security Threat* than other immigrants. Perceptions of high security threat are can originate from stereotyping of young men as terrorists and criminals based on their role in high-profile terrorist attacks and criminal activities. The estimates in Figure 4.2 bear this out. As the share of immigrants in a group who are young men increases, the probability of a group being rated as a high security threat rises. While groups with only 25% young men are not significantly more likely to be rated as high security threat group than the 0% group, any group with more than 50% young men is. The effect sizes are substantively

meaningful: groups containing 50%, 75%, and 100% young men are 5, 9, and 12 percentage points, respectively, more likely to be rated as a security threat than the baseline. As the baseline rate is about 36%, this indicates that approximately half of all 100% young men groups were rated as a high security threat.

Finally, the third panel of Figure 4.2 tests whether young men also increase perceptions of *Cultural Threat*. This type of threat could be rooted in fears that the young men will violate European values, especially regarding the treatment of women, and that the young men will apply for family reunification, disincentivizing integration. The estimates offer support for the claim that young immigrant men provoke a significant cultural threat. As the share of young men in a group increases, so does the probability that a group is viewed as unlikely to culturally integrate. For all groups save the 25% group, the estimated effect is significantly different from the baseline. However, the effect sizes are relatively smaller than those for *Security Threat*: only 4 percentage points for groups with 50% or 75% young men, and 8 percentage points for the group composed entirely of young men.

Altogether, this evidence points toward perceptions of security threats and skepticism about their potential to adapt to German cultural norms as underpinning opposition to young immigrant men. Among these two threats, it appears that concerns about security dominate: for the 75% and 100% levels of *Young Men*, the estimated effect sizes on *Security Threat* are roughly four percentage points large than the corresponding effect sizes on *Cultural Threat*. However, for both types of threats it appears that only large concentrations of young men lead to increased perceptions of threat: the estimated effect of 25% young men is significant for neither threat type.

4.5 Conclusion

Given the large number of young men who entered Europe among the asylum seekers in 2015 and 2016, these findings suggest that the finding public support for the settlement of asylum seekers may be more challenging for European governments than originally thought. How can this challenge be reduced? One option is to tailor refugee dispersion

quotas which prevent the concentration of young men within a locality. Another avenue is to admit fewer young men, an approach taken by the Canadian government.[18] However, this approach may have severe humanitarian costs, as the threats facing young men are often just as dire as threats facing other asylum seekers. Alternatively, policy makers can prioritize cultural integration and public safety, undermining the source of opposition to young immigrant men. Encouragingly, policy makers in Germany seem aware of this, as 72% of the respondents to a survey of local elected officials indicated that language training and education of refugees are very important goals (vhw 2016). Worryingly, the same survey shows that policy makers may still be disconnected from the public's concerns, as only 32% of those surveyed indicated that public safety was a top priority.

For understanding the sources of opposition to immigration, this study shows specifically which immigrants pose cultural and security threats. While earlier studies (Dancygier and Donnelly 2013; Malhotra, Margalit and Mo 2013) have shown links between specific groups of immigrants and perceptions of labor market threat, less has been studied about which immigrants pose the greatest cultural threat (but see Hopkins 2015). My finding that young men pose these threats helps develop our understanding of these cultural and security threats, and suggests that important work remains to be done in understanding the attributes of young men which lead to these threats. For example, it is important to know if young men are perceived as culturally threatening because they are viewed as less likely to learn the language or as less likely to adopt local norms about the treatment of women. More generally, my findings imply that important work remains to be done in understanding the link between specific immigrants and specific types of threat.

Additionally, this research shows that examining attitudes toward groups of immigrants, in addition to individual immigrants, has the potential to provide new insights. In this study, considering attitudes toward groups has revealed opposition to young immigrant men which was not apparent in a study of individual immigrants. Studying groups

[18] "Canada will welcome 25,000 refugees, but no single straight men," *Newsweek* (2015, November 24).

makes sense on theoretical grounds, as tendencies to stereotype and beliefs about the behavior of groups mean attitudes towards groups may differ than attitudes towards individuals. It is also practically relevant: immigrants often arrive, live, and are portrayed in public debates as groups.

Finally, these findings imply that future migration events which include a disproportionate share of young men are likely to provoke substantial opposition among natives of the immigrant receiving countries. Historically, such events have not been extremely rare. For example, during the United States' "age of mass migration" at the turn of the 20th century, young men represented approximately 20% of the foreign-born population of the United States.[19] Similarly, during Germany's "guest worker" programs of the 1950's and 1960's, young men were the primary group recruited (Höhne et al. 2014). Given these patterns in past migration events, it is likely that this trend of large shares of young men will continue.

[19] `https://www.census.gov/population/www/documentation/twps0029/tab07.html`. Young means ages 15-34, based on 1900 estimates.

Chapter 5

Conclusion

The preceding chapters have shown the impact of three features of localities on immigrant integration. In each chapter, I have emphasized how local contexts matter by either expanding or limiting the set of opportunities available to immigrants. Chapter 2 argues that local governing parties do this through their handling of public resources and their responsiveness to immigrants. Chapters 3 and 4 argue that immigrant diversity and the share of young men in an immigrant population do this by impacting natives' attitudes toward immigrants. The empirical evidence I present to support these arguments shows that local contexts have substantial effects, identifying localities that are governed by parties of the left with immigrant populations that are diverse and not skewed toward young men as providing the best conditions for integration.

Many important questions about local contexts remain open for future research. Chapter 2 shows that integration is advanced by settlement in a left-governed municipality. However, my measure of integration, out-migration, is likely measuring socioeconomic integration more than political integration. Future research studying the impact of local governing parties on political integration will be important, given that immigrants' initial interaction with the state may shape their beliefs about the long-term value of political participation.

In Chapter 3, I develop a theory that links immigrant diversity to integration through

diversity's impact on natives' attitudes. Diversity, however, is also likely to have impact on immigrants' behaviors in terms of their social networks, political mobilization, and residence patterns. Future work that examines these mechanisms will reveal more about the consequences of diversity and the causes of integration.

Unifying the chapters of this dissertation is the intuition that the settlement patterns of immigrants within countries have important consequences for integration and public attitudes toward immigrants. For policymakers, more careful attention to the design and implementation of policies settling immigrants could therefore have significant impacts. Nevertheless, future research identifying additional consequences of local contexts is necessary to fully judge how effectively immigrant settlement policies meet the normative goal of ensuring equal opportunities for all immigrants to successfully integrate after settlement.

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Appendix A: Additional Information for Chapter 2

A.1 The Spatial Dispersion Policy

Beginning in 1986, the Danish government, via the Danish Refugee Council (DRC), implemented a policy of spatial dispersion of refugees and asylum seekers who had been given residence permits for the purpose of asylum (henceforth collectively referred to as "refugees"). The policy was a response to the increasing number of refugees entering Denmark in the 1980s. Prior to the SDP, most refugees requested residence in Copenhagen, Denmark's capital and largest city. However, as the number of refugees increased, it became increasingly difficult for the DRC to place refugees in Copenhagen. Consequently, the SDP was introduced as a new method to settle refugees in municipalities across Denmark. It would remain in effect from 1986 until 1999, when a new policy was introduced. During the period the SDP was in force, 76,673 individuals were granted refugee status (Statistics Denmark 1992, 1997, 2000) and allocated across municipalities.

In implementing the SDP, the DRC first aimed to place refugees into counties such that the proportion of placed refugees was equivalent to the county's proportion of the total population.[1] Second, within counties, the DRC attempted to place refugees into municipalities such that the number of refugees in a municipality was proportional to that municipality's share of the total county population (Danish Refugee Council 1996, pp. 8-

[1]In this period, Denmark was divided into 14 counties plus the two independent municipalities Copenhagen and Fredriksberg. All other municipalities were wholly within one of the 14 counties. The average county population was 324,000 in the SDP period.

9).[2] Third, the DRC aimed to place refugees into municipalities with suitable reception facilities, including adequate housing, educational institutions, employment opportunities, and co-nationals. Consequently, the SDP's goals led to refugees being placed primarily in towns and cities, rather than rural ares. Additionally, the DRC attempted to place refugees around co-ethnics in order to facilitate reception and well-being; this led to local ethnic clusters of approximately 100 refugees within three year periods (Damm 2009*b*).[3]

Prior to being granted refugee status, asylum seekers lived in Red Cross reception centers across Denmark. Upon receipt of asylum, the council assigned them to one of Denmark's counties within 10 days (Danish Refugee Council 1996, p. 9). Once refugees were assigned to a county, the DRC's local offices assigned them to a municipality and they were given temporary housing while the DRV searched for permanent housing in the municipality of assignment on the refugee's behalf. After receiving asylum, refugees filled out a questionnaire asking about basic personal information, such as date of birth, marital status, number of children and nationality; this information was given to the DRC and could have been used in the placement process. Conditional on this information, all of which we observe in the administrative registers and include in our analysis, assignment to a municipality was random. Note that this questionnaire did not provide information about educational attainment, income, language skills, or job training, meaning that placement decisions were not influenced by these important factors. Furthermore, there was no face-to-face meetings between refugees and the DRC's placement officials at which refugees could give additional information to the council. Only the information contained in the questionnaire was available to the council during placement.

In addition, the council did not consider individual location preferences in the assignment process . Resettlement requests were considered only after an individual had moved to the original municipality of assignment (Damm and Dustmann 2014). Nor were

[2]Denmark was divided into 275 municipalities during this period, with an average municipal population of 19,000 inhabitants.

[3]The DRC also prioritized placing families in larger housing units, which became increasingly difficult in the larger cities as time went on, leading families to be disproportionately placed in smaller locations in later years of the SDP (Damm 2009*b*).

the preferences of the municipalities considered by the council. The council entered the local housing market directly on behalf of refugees, and consequently municipal authorities were not aware of a refugee's placement until after settlement had occurred (Damm 2009*a*). These points reinforce the randomness of the first municipality of assignment; it is this municipality whose political context we base our analysis on. Once placed, refugees participated in an 18 month Danish course and received social benefits. The placements were not binding: refugees were free to move to another municipality, if they could independently find housing. Receipt of benefits was not conditional on residing in the assigned municipality.

The SDP was largely successful. Though refugees were free to opt-out of dispersal if they were able to find their own accommodation, approximately 90% of refugees in this period were provided housing under the SDP (Damm 2009*a*). Among the 90% who participated, almost all of them were successfully placed: only 0-4% of refugees did not find permanent housing within the introductory 18 month period (Damm and Dustmann 2014). Consequently, within only two years of its implementation, there were refugees in 243 out of 275 municipalities in Denmark, and the geographical distribution of refugees was quite similar to that of the overall population (Danish Refugee Council 1987, pp. 30-31).

A.2 Construction of the Refugee Sample

Though we have data on all individuals living in Denmark during the SDP period, the administrative registers include do not an indicator of refugee status or participation in the SDP. As such, we construct our sample of the total refugee population according to the following algorithm. First, we define as refugees individuals who arrived between 1986 and 1998 from one of the following eight countries: Lebanon, Iran, Iraq, Somalia, Sri Lanka, Vietnam, Afghanistan, and Ethiopia.[4] These eight countries are considered

[4]We exclude refugees from the former Yugoslavia because these refugees were initially granted provisional asylum and were subsequently subjected to a special dispersal policy implemented in 1993 (known as the Bosnian program) (Damm and Dustmann 2014).

because collectively they account for approximately 85% of the total number of refugee permits issued in this period, and because the vast majority of immigrants from these countries arrived with refugee permits.

Second, we include in our sample individuals who at their time of arrival were not married to an individual from a non-refugee sending country or an individual from a refugee sending country who had arrived at least one year earlier. These requirements are imposed so that our sample includes only individuals subjected to the SDP. Third, we include only individuals at least 18 years old at the time of arrival. We consider a refugee's first observed municipality to be their municipality of assignment under the SDP. We exclude all refugees' whose first observed municipality is the capital, Copenhagen, from our sample because it is likely the location refugees who opt-out of the SDP would have moved to. Thus, the exclusion of Copenhagen likely minimizes the contamination of undisposed refugees in our sample. Finally, we include only the heads of household in our sample, as briefly described in the main text. Heads of household are defined as all non-married refugees, all married refugees not residing in the same municipality as their partner, and for cohabiting couples, the partner that arrived in Denmark first. We use only these individuals as our main outcome variable, out-migration, is a decision that was likely made together by married couples. Excluding non-head of households thus ensures that a single decision is not counted twice in our data. Following this algorithm, we construct a refugee sample of 19,387 individuals.

Appendix B: Additional Information for Chapter 3

B.1 Data Sources and Descriptive Statistics for Main Analysis

This section presents the sources for all measures used in the main observational analysis and in the reverse causality analysis. Tables B.1, B.2, and B.3 provide information about the German data, which comes from the Federal Statistical Office (*Statistiches Bundesamt*) or the Statistical Offices of the Federation and States (*Statistiches Amter des Bundes und der Länder*). Tables B.4, B.5, and B.6 provide information about the Danish data, which originates from Statistics Denmark.

Table B.1: Details and Sources for German Variables

Immigrant Unemployment	Number of unemployed immigrants divided by the total number of immigrants. Unemployed individuals are those older than 15 years and younger than the retirement age (between 65 and 67 years) who are working less than 15 hours a week and have registered with the authorities as seeking a job. *Source Tables:* 659-71-4 and 12521-0040
Effective Number of Immigrant Communities (ENIC)	Calculated as $1/\sum c_i^2$, were c_i is the share of the immigrant population with citizenship from country i. *Source Table:* 12521-0040
Population	The total population of a district. *Source Table:* 12411-0014
Population Density	Total population (measured in thousands) divided by the mean area of a district between 2001 and 2013 (measured in square kilometers). The mean area is used as data on area is unavailable for 2014 and because some districts' areas changed slightly overtime. *Source Tables:* 11111-0002 and 12411-0014
Immigrant Proportion	Percentage of district's population who are foreign-born. *Source Tables:*12521-0040 and 12411-0014
Share Muslim Immigrants	Percentage of the immigrant population with citizenship from a majority Muslim country. See Table SI 1.2 for a list of countries identified as Muslim majority in the German data. *Source Table:*12521-0040
Share Western Immigrants	Percentage of the immigrant population with citizenship from a Western country. See Table SI 1.2 for a list of countries identified as Western in the German data. *Source Table:* 12521-0040
Unemployment	Number of unemployed individuals divided by the total population. Unemployed individuals are the same as above. *Source Tables:* 659-71-4 and 12411-0014
Urban District	Indicator for districts designated as "*Kreisfreie Stadt*"
East Germany	Indicator for districts in the five states of the former German Democratic Republic (Brandenburg, Mecklenburg-Vorpommern, Saxony-Anhlat, Saxony, and Thuringia)

Note: Table 659-71-4 is from the publicly accessible online database "Regionaldatenbank Deutschland" produced by the *Statistiche Ämter des Bundes und der Länder* (available at `https://www.regionalstatistik.de/genesis/online/`). All other tables are from the publicly accessible online database "GENESIS-Online Datenbank" produced by the *Statistiches Bundesamt* (*Destatis*; available at `https://www-genesis.destatis.de/genesis/online`).

Table B.2: Islamic and Western Country Coding in German Data

Islamic Countries:
Republic of Afghanistan, Albania, Algeria, Azerbaijan, Bahrain, Bangladesh, Bosnia and Herzegovina, Brunei Darussalam, Burkina Faso, Comoros, Djibouti, Egypt, Gambia, Guinea, Indonesia, Iraq, Islamic Republic of Iran, Jordan, Kazakhstan, Kyrgyzstan, Kosovo, Kuwait, Lebanon, Libya, Malaysia, Maldives, Mali, Morocco, Mauritania, Niger, Oman, Pakistan, Palestinian Territories, Qatar, Saudi Arabia, Senegal, Sierra Leone, Somalia, Stateless, Sudan (including South Sudan, until 2011-07-08), Sudan (without South Sudan, since 2011-07-09), Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Tuvalu, United Arab Emirates, Unknown / Not specified, Uzbekistan, Yemen
Western Countries:
Andorra, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Iceland, Israel, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, New Zealand, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Sweden, Switzerland, Slovakia, Slovenia, Spain, United Kingdom, United States, Vatican City State

Note: The codings for Denmark and Germany differ slightly as the list of countries included in each country's administrative records differs. Stateless and Unknown / Not specified are coded as Muslim as many of these immigrants hail from the Palestinian Territories. Coding of countries was done by the author.

Table B.3: Descriptive Statistics for German Data

	Min.	Median	Mean	Max	Std. Dev.	Missing
Immigrant Unemployment	0	7.187	7.561	21.474	3.005	0
ENIC	1.868	12.358	13.418	35.738	6.360	0
Population (in thousands)	33.944	137.010	194.651	3469.849	226.154	4
Population Density	0.365	1.989	5.141	46.036	6.677	4
Immigrant Proportion	0.006	0.056	0.068	0.464	0.052	4
Share Muslim Immigrants	0.042	0.321	0.328	0.708	0.113	0
Share Western Immigrants	0.104	0.411	0.415	0.839	0.119	0
Unemployment	0.012	3.844	4.542	14.747	2.505	4
$N = 5,789$						

Note: Data comes from the Federal Statistical Office of Germany and the Statistical Office of the Federation and States, and covers the period 2001-2004. Population density is measured as 1,000 people per square kilometer.

Table B.4: Details and Sources for Danish Variables

Immigrant Unemployment	Percentage of a municipality's immigrant labor force who are unemployed. Unemployed individuals are those who are are out of work, but are still in the labor force or receiving unemployment benefits (for more detail on how individuals are classified as unemployed see `http://www.dst.dk/en/Statistik/dokumentation/documentationofstatistics/register-based-labour-force-statistics/statistical-presentation`). *Source Tables:* RAS1
Western Immigrant Unemployment	Same as *Immigrant Unemployment* but including only immigrants from Western countries. See Table SI 1.4 for the set of countries coded as Western. *Source Tables:* RAS1
Non-Western Immigrant Unemployment	Same as *Immigrant Unemployment* but including only immigrants from Non-Western countries. See Table SI 1.4 for the set of countries coded as Non-Western. *Source Tables:* RAS1
Effective Number of Immigrant Communities (ENIC)	Calculated as $1/\sum c_i^2$, were c_i is the share of the immigrant population in a municipality originating from country i. *Source Table:* BEF3
ENIC - Western	Same as *ENIC* but including only immigrants from Western countries. *Source Table:* BEF3
ENIC - Non-Western	Same as *ENIC* but including only immigrants from Non-Western countries. *Source Table:* BEF3
Population	The total population of a municipality. *Source Table:* BEF3
Population Density	Total municipal population (measured in thousands) divided by municipal area (measured in square kilometers). *Source Tables:* ARE2 and BEF3
Immigrant Proportion	Percentage of a municipality's total population who are immigrants or their descendants. *Source Tables:* BEF3
Western Immigrant Proportion	Percentage of a municipality's total population who are Western immigrants or their descendants. *Source Tables:* BEF3
Non-Western Immigrant Proportion	Percentage of a municipality's total population who are Non-Western immigrants or their descendants. *Source Tables:* BEF3

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Share Muslim Immigrants	Percentage of the immigrant population with citizenship from a majority Muslim country. See Table SI 1.4 for a list of countries coded as Muslim majority in the Danish data. *Source Table:* BEF3
Share Western Immigrants	Percentage of the immigrant population with citizenship from a Western country. *Source Table:* BEF3
Unemployment	Percentage of a municipality's labor force who are unemployed. See above for details on definition of "unemployed". *Source Tables:* RAS1
Copenhagen Area	Copenhagen, Frederiksberg, and all municipalities in Copenhagen county are coded as being in the Copenhagen area.

Note: All tables are from the publicly accessible online database "Statbank" produced by *Statistics Denmark* (available at `http://www.statbank.dk/statbank5a/default.asp?w=1280`) Population composition data (BEF3) is available by origin country. Unemployment (RAS1) is only available by origin country group (Western, Non-Western, and Danish)

Table B.5: Islamic, Non-Western, and Western Country Coding in Danish Data

Islamic Countries:

Abu Dhabi, Afghanistan, Albania, Algeria, Azerbaijan, Bahrain, Bangladesh, Bosnia and Herzegovina, Brunei, Burkina Faso, Comoros, Djibouti, Dubai, Egypt, The Gambia, Guinea, Indochina, Indonesia, Iran, Iraq, Jordan, Kazakhstan, Kosovo, Kuwait, Kyrgyzstan, Lebanon, Libya, Malaysia, Maldives, Mali, Mauritania, Middle East not stated, Morocco, Niger, North Yemen, Not stated, Oman, Pakistan, Qatar, Saudi Arabia, Senegal, Sierra Leone, Somalia, Stateless, Sudan, Syria, Tajikistan, Trucial Oman, Tunisia, Turkey, Turkmenistan, Tuvalu, United Arab Emirates, Uzbekistan, West Bank and Gaza, Yemen

Non-Western Countries:

Albania, Bosnia and Herzegovina, Belarus, Yugoslavia, Federal Republic of Yugoslavia, Kosovo, Macedonia, Moldova, Montenegro, Russia, Serbia, Serbia and Montenegro, Soviet Union, Turkey, Ukraine, Europe not stated, Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Comoros, Congo, Democratic Republic, Congo, Republic, Djibouti, Egypt, Ivory Coast, Eritrea, Ethiopia, Gabon, The Gambia , Ghana, Guinea, Guinea-Bissau, Cape Verde, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Morocco, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Reunion, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, Spanish territories in Africa, Saint Helena, Sudan, Swaziland, South Africa, South Sudan, Southwest Africa, Tanzania, Chad, Togo, Tunisia, Uganda, Zambia, Zimbabwe, Equatorial Guinea, Africa not stated, Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bermuda, Bolivia, Brazil, British West Indies, Chile, Colombia, Costa Rica, Cuba, Curacao, Dominica, Dominican Republic, Ecuador, El Salvador, Falkland Islands, French Guiana, French West Indies, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Netherlands Antilles, Honduras, Jamaica, Martinique, Mexico, Nauru, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela, West Indies, South and central America not stated, Abu Dhabi, Afghanistan, Armenia, Azerbaijan, Bahrain, Bangladesh, Bhutan, Brunei, Cambodia, Dubai, Philippines, United Arab Emirates, Georgia, Hong Kong, India, Indochina, Indonesia, Iraq, Iran, Israel, Japan, Jordan, Kazakhstan, China, Kyrgyzstan, Kuwait, Laos, Lebanon, Macao, Malaysia, Maldives, Middle East not stated, Mongolia, Myanmar, Nepal, North Korea, Oman, Pakistan, West Bank and Gaza, Qatar, Saudi Arabia, Sikkim, Singapore, Sri Lanka, South Korea, Syria, Tajikistan, Taiwan, Thailand, Trucial Oman, Turkmenistan, Uzbekistan, Vietnam, North Yemen, Yemen, Asia not stated, Cook Islands, Fiji, French territories in the Pacific, Kiribati, Marshall Islands, Papua New Guinea, Solomon Islands, Samoa, Tonga, Tuvalu, Vanuatu, East Timor, Pacific Islands, Stateless, Not stated

(Continued on next page)

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Western Countries:

Andorra, Belgium, Bulgaria, Cyprus, Estonia, Finland, France, Greece, Ireland, Iceland, Italy, Croatia, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Netherlands, Northern Ireland, Norway, Poland, Portugal, Romania, San Marino, Switzerland, Slovakia, Slovenia, Spain, United Kingdom, Sweden, Czech Republic, Czechoslovakia, GDR, Germany, Hungary, Vatican City State, Austria, Canada, USA, North America not stated, Australia, New Zealand

Note: The codings for Denmark and Germany differ slightly as the list of countries included in each country's administrative records differs. Stateless and Not stated are coded as Islamic because many immigrants in these categories are from the Palestinian Territories. The coding of countries as Western and Non-Western is done by *Statistics' Denmark*; countries were coded as Islamic by the author.

Table B.6: Descriptive Statistics for Danish Data

	Min.	Median	Mean	Max	Std. Dev.	Missing
Immigrant Unemployment	0	11.801	12.946	78.169	7.113	0
Western Imm. Unemp.	0	8.831	9.819	40	5.951	0
Non-Western Imm. Unemp.	0	15.942	18.322	100	14.875	57
ENIC	1.215	9.651	10.184	35.284	4.715	0
ENIC - Western	1.147	7.402	7.227	14.749	2.389	0
ENIC - Non-Western	1	5.446	6.132	29.590	3.650	7
Population (in thousands)	2.091	10.032	19.041	502.362	37.304	0
Population Density	0.016	0.068	0.258	10.477	0.785	0
Immigrant Proportion	0.003	0.025	0.033	0.284	0.028	0
Western Imm. Prop.	0.002	0.013	0.016	0.116	0.011	0
Non-Western Imm. Prop.	0	0.009	0.016	0.261	0.023	0
Western Immigrant Share	0.083	0.608	0.609	1.000	0.216	0
Muslim Immigrant Share	0	0.177	0.216	0.796	0.184	0
Unemployment	1.355	6.471	6.762	20.318	2.981	0
$N = 7,129$						

Note: Data comes from Statistics Denmark and covers the period 1981-2006. Population density is measured as 1000 people per square kilometer.

B.2 Regression Tables Corresponding to Figures 3.3 and 3.4

Table B.7: Three Models of *Immigrant Unemployment* in Germany

	Model 1: Full Sample	**Model 2: West Germany**	**Model 3: East Germany**
ENIC	-0.051^{***}	-0.048^{***}	-0.095^{***}
	(0.008)	(0.006)	(0.017)
log(Population)	0.712^{***}	0.155	1.867^{***}
	(0.150)	(0.133)	(0.381)
log(Population Density)	0.677^{***}	0.901^{***}	0.021
	(0.167)	(0.143)	(0.432)
log(Immigrant Proportion)	-3.712^{***}	-2.386^{***}	-6.287^{***}
	(0.155)	(0.121)	(0.334)
Muslim Immigrant Share	4.580^{***}	-0.241	3.899^{*}
	(0.709)	(0.551)	(1.799)
Western Immigrant Share	0.345	-1.909^{***}	-2.861^{*}
	(0.621)	(0.489)	(1.195)
Unemployment	0.737^{***}	1.966^{***}	1.036^{***}
	(0.024)	(0.022)	(0.069)
Urban District	2.469^{***}	-1.162^{***}	6.913^{***}
	(0.358)	(0.300)	(1.028)
East Germany	-4.271^{***}		
	(0.484)		
Intercept	-16.766^{***}	-8.237^{***}	-45.928^{***}
	(2.056)	(1.791)	(5.207)
$N_{\text{Observations}}$	5,785	4,486	1,299
$N_{\text{Districts}}$	467	322	145
N_{States}	16	11	5
N_{Years}	14	14	14
σ_y	1.018	0.283	1.544
$\sigma_{\text{Districts}}$	1.896	0.881	4.217
σ_{States}	0.512	1.589	0.956
σ_{Years}	0.489	0.241	4.327

Note: cell entries are coefficient estimates with standard errors in parentheses from multilevel linear models fitted in `R` with `lmer()`. The dependent variable for all models is *Immigrant Unemployment*. Data comes from the Federal Statistical Offices and the Statistical Offices of the Federation and States. $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

B.3 Regression Results for Øresund Bridge Analysis

I test the effect of the Øresund Bridge on integration and immigrant diversity by fitting two OLS models. These models use the same municipal level Danish data from Statistics

Table B.8: Three models of *Immigrant Unemployment* in Denmark

	Model 1: All Immigrants	**Model 2: Western Immigrants**	**Model 3: Non-Western Immigrants**
ENIC	-0.060^{**}		
	(0.021)		
ENIC - Western		-0.051	
		(0.041)	
ENIC - Non-Western			-0.466^{***}
			(0.061)
log(Population)	0.786^{***}	0.289	1.675^{**}
	(0.217)	(0.182)	(0.583)
log(Population Density)	-0.084	-0.204	-0.129
	(0.188)	(0.160)	(0.488)
log(Immigrant Proportion)	-0.414		
	(0.247)		
log(Western Imm. Prop.)		-1.353^{***}	
		(0.204)	
log(Non-Western Imm. Prop)			2.180^{***}
			(0.268)
Muslim Immigrant Share	5.468^{***}		
	(0.855)		
Western Immigrant Share	-8.607^{***}		
	(0.856)		
Unemployment	1.683^{***}	1.331^{***}	2.253^{***}
	(0.038)	(0.029)	(0.099)
Intercept	-2.641	-7.292^{***}	0.977
	(2.329)	(1.864)	(5.816)
$N_{\text{Observations}}$	7,129	7,129	7,072
$N_{\text{Municipalities}}$	276	276	276
N_{Counties}	16	16	16
N_{Years}	26	26	26
σ_y	18.581	14.378	151.560
$\sigma_{\text{Municipalities}}$	2.558	1.844	18.225
σ_{Counties}	0.235	0.191	1.803
σ_{Years}	1.272	0.218	2.880

Note: cell entries are coefficient estimates with standard errors in parentheses from multilevel linear models fitted in `R` with `lmer()`. The dependent variable is *Immigrant Unemployment* in Model 1, and the same for Western and Non-Western immigrants only in Models 2 and 3, respectively. Data comes from Statistics Denmark. $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

Denmark as the main analysis. The identifying assumption for these models is that absent the opening of the bridge, integration and immigrant diversity would have followed parallel trends in the Copenhagen area and the rest of Denmark. Based on this assumption, these models estimate the average treatment effect on the treated (ATT), which in this context

Table B.9: Regressions Estimates of the Effect of the Øresund Bridge's Opening

	Model 1: **DV: *Immigrant Unemployment***	**Model 2**: **DV: *ENIC***
Treatment	-1.83^{*}	0.09
	(0.73)	(0.43)
Intercept	16.96^{***}	22.19^{***}
	(0.39)	(0.09)
Municipal F.E	✓	✓
Year F.E.	✓	✓
R^2	0.72	0.94
N	1,100	1,160

Note: Cell entries are OLS estimates with clustered standard errors in parentheses. Data comes from Statistics Denmark. $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

is the average effect of the bridge opening on integration and immigrant diversity in the Copenhagen area. The exact specification for these models is

$$Y_{i,t} = \alpha + \gamma_i + \delta_t + \rho \mathrm{D}_{i,t} + \epsilon_{i,t},$$

where Y is one of two outcome variables, either *Immigrant Unemployment* or *ENIC*, γ_i is a municipality fixed effect, δ is a year fixed effect, ρ is the effect of the Øresund Bridge, ϵ is the idiosyncratic error term, i indexes municipalities and t indexes years. The variable D represents treatment, it is an interaction of the variable *Copenhagen Area* and an indicator for $t > 2000$. To account for potential correlation among errors over time within municipalities, I cluster standard errors at the municipal level. Table B.9 shows the results of these models. The main finding is that there is a treatment effect of the bridge on integration, as measured by *Immigrant Unemployment*, but no treatment effect for immigrant diversity (as measured by *ENIC*).

B.4 Additional Details on Conjoint Survey Design

B.4.1 Sample

The survey was conducted online from December 23, 2016 to December 30, 2016. The target population was German citizens aged 18-75. Respondents were provided by the survey firm Respondi, who maintain a large panel of Germans. Based on demographic records pre-collected by Respondi, panelists were invited to participate with the goal of creating a sample that matches population margins on age, gender, state, and education. Throughout the field period, the sample margins on these demographics were monitored,[5] and invites were sent to panelists based on which groups were currently under- or over-represented; however, hard quotas were not used during sampling. As described below, survey weights were used to correct differences from the population margin. The final sample included 2,136 respondents.

B.4.2 Demographic Variables and Descriptive Statistics

Five demographic variables were measured for each respondent: age (years), gender, state, citizenship and highest completed education. All measures are self-reported. Respondents were able to choose from 12 education levels:

1. Still in school
2. Special-needs school leaving certificate
3. Secondary school leaving certificate
4. Degree from polytechnic secondary school in the former German Democratic Republic
5. Intermediate school-leaving certificate
6. Entrance qualification for studies at universities of applied sciences
7. High school diploma which allows for university entrance
8. Degree in vocational education
9. Degree from a university of applied science (diploma, bachelor's or master's)
10. University degree (diploma, bachelor's or master's)
11. PhD
12. No completed education programs

[5]Monitoring was done using responses to demographic questions in the survey

These levels were then grouped into six categories: None (levels 1 and 12), low-tier high school education (levels 1, and 2), Vocational Education (level 8), medium-tier high school education (levels 4 and 5), high-tier high school education (levels 6 and 7), and university education (levels 9, 10, and 11). Table B.10 displays descriptive statistics for age, gender, survey completion time (in seconds), and education.[6]

Table B.10: Respondent Descriptive Statistics

	Min.	Median	Mean	Max.	Std. Dev.	NA
Age (years)	18	49.5	48.1	100	15.05	0
Male	0	1	0.53	1	0.50	6
Completion Time	59	373	1,175	433,466	12,884	0
Education:	None	Low	Vocational	Medium	High	University
	1%	20%	26%	21%	15%	17%

B.4.3 Sample Weights

As is common in internet panels, my sample deviates deviates from the demographic margins of the population. Specifically, in comparison to the population, men, low-education individuals, and residents of North Rhine-Westphalia are overrepresented in my sample. To correct for this, I fit post-stratification weights for my data using the function `rake()` in the `R` package `survey`. I construct weights to achieve balance based on the population margins among 18-75 year old Germans on four demographics: age, gender, education, and state. Due to missing values on demographics or being outside the age range of the target population, 35 respondents were dropped from the data when the weights were created. These weights are used in my analysis. Model 2 in Table B.11 shows that the results of my analysis are robust to using the unweighted data (and including respondents of all ages), however.

[6]Statistics for citizenship are not shown; all non-German citizens were screened out of the survey.

B.5 Regression Results for Conjoint Survey

Table B.11: Regression Results for the Conjoint Survey

	Model 1: Weighted	**Model 2: Unweighted**
Intercept	0.483^{***}	0.488^{***}
	(0.013)	(0.012)
Diversity:		
Low	-0.001	0.002
	(0.011)	(0.010)
High	0.046^{***}	0.043^{***}
	(0.011)	(0.009)
Share of Young Men:		
25%	-0.025	-0.031^{**}
	(0.013)	(0.012)
50%	-0.086^{***}	-0.095^{***}
	(0.014)	(0.012)
75%	-0.181^{***}	-0.177^{***}
	(0.014)	(0.012)
100%	-0.276^{***}	-0.275^{***}
	(0.014)	(0.012)
Share with University Education:		
10%	0.083^{***}	0.079^{***}
	(0.012)	(0.011)
20%	0.163^{***}	0.155^{***}
	(0.012)	(0.011)
30%	0.219^{***}	0.219^{***}
	(0.013)	(0.011)
R^2	0.071	0.068
N	16,528	16,528

Note: The dependent variable is *Settlement Preference*. Estimates are from OLS regressions with standard errors clustered by respondent. $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

Appendix C: Additional Information for Chapter 4

C.1 Reanalysis of Bansak, Hainmueller, and Hangartner (2016)

Bansak, Hainmueller and Hangartner (2016, henceforth "BHH") conduct a conjoint experiment investigating attitudes toward asylum seekers among the public in 15 European countries. Their conjoint includes numerous asylum seeker attributes: consistency of asylum testimony, gender, country of origin, age, previous occupation, vulnerability, reason for migrating, religion, and language skills. They measured two outcome variables of interest. *Forced Choice* is a binary variable based on a question which asks respondents which of the two asylum seekers in a trial they would prefer be allowed to stay in the host country. *Binary Rating* is also a binary variable, based on a question asking respondents how supportive (on a seven point scale) they would be for an asylum seeker to stay in the host country. Responses of 5 or higher, i.e. above the mid point, were coded as 1. The data from BHH's experiment is available in Hainmueller (2016).

I reanalyze Hainmueller (2016) to assess if young male asylum seekers are particularly preferred or opposed. BHH do not carry out such an analysis in their main text. In the supplementary information, they do perform analyses of male and female asylum seekers separately (see Figures S25 and S26) and analyses subsetting the data by asylum seeker age (age was either 21, 38, or 62 years old; see Figures S31 and S32). However, these subsample analyses make it difficult to compare attitudes toward young men with attitudes toward asylum seekers of other age and gender combinations.

My analysis of Hainmueller (2016) includes coefficients for *Gender* (1 = Male, 0 = Female) and *Age* (21, 38, or 62 Years Old) and their interactions. I exclude the other profile attributes to simplify the analysis.[7] Otherwise, my analysis exactly follows the procedures reported in BHH: I use weighted OLS models with standard errors clustered by respondents. Table C.1 reports the results of my analysis with separate models for each of BHH's two outcome variables.

The estimates show little evidence of particular polarization for or against young male asylum seekers. In both models, male asylum seekers and old asylum seekers are penalized, while 38 year old asylum seekers are not. Further, neither model shows evidence of a large interactive effect. Only the coefficient for 62 year old men in the forced choice

[7]Random assignment of profile attributes means that this decision does not induce bias in my estimates of attitudes toward young male asylum seekers.

Table C.1: Interactive Effects of Age and Gender on Preferences over Asylum Seekers

	DV: Forced Choice	DV: Binary Rating
Male	−0.062***	−0.038***
	(0.005)	(0.004)
38 Years Old	−0.003	−0.004
	(0.005)	(0.004)
62 Years Old	−0.067***	−0.036***
	(0.006)	(0.004)
Male × 38 Years Old	−0.006	0.001
	(0.007)	(0.006)
Male × 62 Years Old	0.015*	0.007
	(0.007)	(0.006)
Intercept	0.552***	0.476***
	(0.004)	(0.004)
R^2	0.006	0.002
N	178,740	178,740

Note: Estimates are from weighted OLS models with standard errors clustered by respondent. Data are from Hainmueller (2016). $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

model is statistically significant, and the effect size is very small. To clarify how these estimates relate to preferences over combinations of age and gender, Figure C.1 plots the predicted probabilities of acceptance based on the forced choice model. These predicted probabilities show that young male asylum seekers' probability of acceptance is statistically indistinct from middle aged men and old women, and is significantly higher than old men's selection probability. Only young and middle aged women are preferred at higher rates than young men. Altogether, this evidence leads to the conclusion that respondents to BHH's survey were not particularly opposed to or in favor of young male asylum seekers.

C.2 Details on Survey Design and Implementation

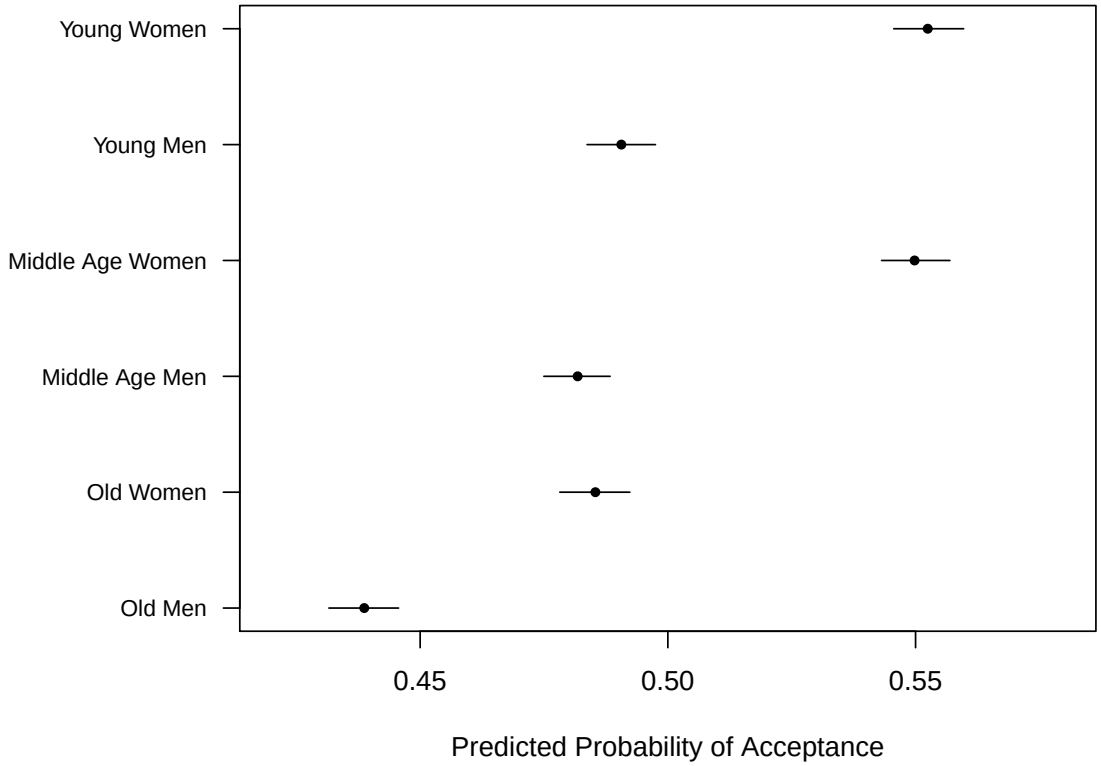
C.2.1 Randomization of Countries of Origin

The number of immigrants per country of origin were randomized as follows. First, one of three vectors - (60,0,0,0,0,0), (30,20,10,0,0,0), (10,10,10,10,10,10) - was randomly chosen for each profile. Second, the order of the six numbers in the chosen vector was randomized. Finally, the randomly ordered set of six numbers were matched to the six origin countries to represent the number of immigrants per country.

C.2.2 Attribute Order Randomization and Example Groups

As described in the main text, each immigrant group contained eight attributes: the number of immigrants for each of the six origin countries, the share of young men in the group, and the share of group members with a university education. When presented to respondents, the origin countries were always presented first. The order of the six origin

Figure C.1: Predicted Probabilities of Acceptance for Age and Gender Combinations



Note: Bars indicate 95% confidence intervals around predictions. Predictions are based off the *Forced Choice* model in Table C.1.

countries was randomly assigned once per respondent and then constant across the four pairs of immigrant groups each respondent evaluated. Below the number of immigrants per countries, the total number of immigrants in the group, which is always fixed at 60, was displayed.

Below the origin country information, the other two attributes, young men and education, were presented under a section titled "Group Traits." The order of these attributes was also randomly assigned for each respondent but then held constant across pairs of immigrant groups. An example of how the groups were presented to respondents is displayed in Table C.2.

C.2.3 Survey Flow

Before beginning the conjoint tasks, respondents read an informed consent document and answered demographic questions on age, citizenship, gender, education, and state. After these, respondents were informed that they would be asked to compare four pairs of immigrant groups. In each task, respondents were asked seven items: the single forced choice question, three rating questions about Group A, and three rating questions about Group B. The forced choice item was always asked first, immediately below the group profiles. Whether questions about Group A or Group B appeared second was randomized for each pair of profiles. Within the questions about each group, the order of the three rating scales (*Economic Potential*, *Security Threat* and *Cultural Threat*) were also randomized.

Table C.2: Example Immigrant Groups

	Group A	Group B
Number of immigrants per country:		
Syria	0	20
Afghanistan	0	0
Albania	0	30
Eritrea	60	0
Serbia	0	10
Nigeria	0	0
Total	60	60
Group Traits:		
Share with university education	0%	30%
Share of male immigrants under age 25	75%	50%

Between each of the conjoint tasks, respondents were alerted that they were about to be shown new groups.

C.2.4 Sample

The survey was conducted online from December 23, 2016 to December 30, 2016. The target population was German citizens aged 18-75. Respondents were provided by the survey firm Respondi, who maintain a large panel of Germans. Based on demographic records pre-collected by Respondi, panelists were invited to participate with the goal of creating a sample that matches population margins on age, gender, state, and education. Throughout the field period, the sample margins on these demographics were monitored,[8] and invites were sent to panelists based on which groups were currently under- or over-represented; however, hard quotas were not used during sampling. As described below, survey weights were used to correct differences from the population margin. The final sample included 2,136 respondents.

C.2.5 Demographic Variables and Descriptive Statistics

Five demographic variables were measured for each respondent: age (years), gender, state, citizenship and highest completed education. All measures are self-reported. Respondents were able to choose from 12 education levels:

1. Still in school
2. Special-needs school leaving certificate
3. Secondary school leaving certificate
4. Degree from polytechnic secondary school in the former German Democratic Republic

[8]Monitoring was done using responses to demographic questions in the survey

5. Intermediate school-leaving certificate
6. Entrance qualification for studies at universities of applied sciences
7. High school diploma which allows for university entrance
8. Degree in vocational education
9. Degree from a university of applied science (diploma, bachelor's or master's)
10. University degree (diploma, bachelor's or master's)
11. PhD
12. No completed education programs

These levels were then grouped into six categories: None (levels 1 and 12), low-tier high school education (levels 1, and 2), Vocational Education (level 8), medium-tier high school education (levels 4 and 5), high-tier high school education (levels 6 and 7), and university education (levels 9, 10, and 11). Table C.3 displays descriptive statistics for age, gender, survey completion time (in seconds), and education.[9]

Table C.3: Respondent Descriptive Statistics

	Min.	Median	Mean	Max.	Std. Dev.	NA
Age (years)	18	49.5	48.1	100	15.05	0
Male	0	1	0.53	1	0.50	6
Completion Time	59	373	1,175	433,466	12,884	0
Education:	None	Low	Vocational	Medium	High	University
	1%	20%	26%	21%	15%	17%

C.2.6 Sample Weights

As is common in internet panels, my sample deviates deviates from the demographic margins of the population. Specifically, in comparison to the population, men, low-education individuals, and residents of North Rhine-Westphalia are overrepresented in my sample. To correct for this, I fit post-stratification weights for my data using the function `rake()` in the `R` package `survey`. I construct weights to achieve balance based on the population margins among 18-75 year old Germans on four demographics: age, gender, education, and state. Due to missing values on demographics or being outside the age range of the target population, 35 respondents were dropped from the data when the weights were created. These weights are used for all analyses in the main text and the SI. Model 2 in Table C.4 shows the robustness of the results of my main analysis to using the unweighted data (and including respondents of all ages).

[9]Statistics for citizenship are not shown; all non-German citizens were screened out of the survey.

C.3 Regression Tables for Main Results and Subgroup Analyses

The tables in this section report the following results. First, Table C.4 presents the estimates corresponding to Figure 4.1 in the main text, and also shows the robustness of this model to using the unweighted data (which also includes respondents who were older than the target population age range of 18-75 years). Second, Table C.5 shows the results when the data is subset according to gender, age (all respondents above the median age of 49 are coded as old), education (categories "High" and "University" are coded as high; all other categories are coded as low) and region (East and West Germany). As described in the main text, the main result of opposition to groups with many young men, holds across all of the subgroups. Finally, Table C.6 presents regression estimates corresponding to Figure 4.2 in the main text. Worth noting in Table C.6 are the estimated effects of *Education*. Groups with more university educated members are perceived as (1) more likely to contribute economically, (2) less likely to be a security threat, and (3) less likely to be a cultural threat. These results correspond well with earlier studies showing natives have favorable opinions toward educated immigrants (see Bansak, Hainmueller and Hangartner 2016; Hainmueller and Hopkins 2015) and provide reassurance that the three rating variables are measuring their intended concepts.

Table C.4: Regression Results for Figure 4.1 and Unweighted Results

	Model 1: Weighted	Model 2: Unweighted
Intercept	0.498***	0.500***
	(0.012)	(0.010)
Share of Young Men:		
25%	−0.025	−0.029*
	(0.013)	(0.011)
50%	−0.086***	−0.093***
	(0.014)	(0.012)
75%	−0.183***	−0.174***
	(0.014)	(0.012)
100%	−0.276***	−0.272***
	(0.014)	(0.012)
Share with University Education:		
10%	0.082***	0.080***
	(0.012)	(0.011)
20%	0.162***	0.155***
	(0.012)	(0.011)
30%	0.218***	0.219***
	(0.013)	(0.011)
R^2	0.069	0.066
N	16,528	16,790

Note: The dependent variable in both models is *Settlement Preference*. Estimates are from OLS models with standard errors clustered by respondent. $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

Table C.5: Results for Respondent Subgroups

	Model 1: Men	Model 2: Women	Model 3: Young	Model 4: Old	Model 5: High Education	Model 6: Low Education	Model 7: East Germany	Model 8: West Germany
Intercept	0.492***	0.504***	0.495***	0.502***	0.476***	0.509***	0.505***	0.497***
	(0.016)	(0.018)	(0.019)	(0.016)	(0.021)	(0.015)	(0.029)	(0.013)
Share of Young Men:								
25%	−0.009	−0.041*	−0.023	−0.028	−0.029	−0.024	0.031	−0.037*
	(0.019)	(0.018)	(0.020)	(0.018)	(0.023)	(0.016)	(0.033)	(0.014)
50%	−0.089***	−0.084***	−0.090***	−0.082***	−0.099***	−0.081***	−0.046	−0.094***
	(0.020)	(0.021)	(0.021)	(0.020)	(0.023)	(0.018)	(0.040)	(0.015)
75%	−0.186***	−0.179***	−0.189***	−0.175***	−0.210***	−0.172***	−0.218***	−0.176***
	(0.020)	(0.020)	(0.022)	(0.019)	(0.024)	(0.018)	(0.032)	(0.016)
100%	−0.255***	−0.296***	−0.302***	−0.247***	−0.290***	−0.270***	−0.264***	−0.278***
	(0.021)	(0.020)	(0.022)	(0.019)	(0.024)	(0.018)	(0.035)	(0.016)
Share with University Education:								
10%	0.081***	0.083***	0.099***	0.062***	0.114***	0.068***	0.067*	0.085***
	(0.017)	(0.018)	(0.018)	(0.017)	(0.021)	(0.015)	(0.032)	(0.013)
20%	0.161***	0.163***	0.166***	0.157***	0.215***	0.138***	0.116***	0.171***
	(0.017)	(0.017)	(0.018)	(0.016)	(0.019)	(0.015)	(0.034)	(0.013)
30%	0.213***	0.223***	0.229***	0.204***	0.275***	0.193***	0.180***	0.225***
	(0.019)	(0.018)	(0.020)	(0.017)	(0.021)	(0.016)	(0.034)	(0.014)
R^2	0.064	0.074	0.079	0.058	0.090	0.061	0.072	0.070
N	8,674	7,854	8,436	8,092	5,408	11,120	2,516	14,012

Note: The dependent variable in all models is *Settlement Preference*. Estimates are from weighted OLS models with standard errors clustered by respondent. $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

Table C.6: Regressions Results for Figure 4.2

	Model 1: Economic Potential	Model 2: Security Threat	Model 3: Cultural Threat
Intercept	0.221***	0.386***	0.388***
	(0.013)	(0.014)	(0.014)
Share of Young Men:			
25%	0.004	0.016	0.020
	(0.012)	(0.014)	(0.014)
50%	−0.002	0.049***	0.045**
	(0.012)	(0.014)	(0.014)
75%	0.005	0.087***	0.048***
	(0.013)	(0.014)	(0.014)
100%	−0.009	0.117***	0.079***
	(0.012)	(0.015)	(0.015)
Share with University Education:			
10%	0.022*	0.003	0.004
	(0.011)	(0.012)	(0.012)
20%	0.009	−0.034**	−0.034**
	(0.011)	(0.012)	(0.012)
30%	0.052***	−0.066***	−0.069***
	(0.012)	(0.013)	(0.012)
R^2	0.002	0.011	0.007
N	16,677	16,659	16,672

Note: Estimates are from weighted OLS models with standard errors clustered by respondent. $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

C.4 Details about Mechanical Turk Pilot Study

For the purpose of refining the survey instrument, I conducted a pilot study of my conjoint experiment on a sample of 200 American respondents from Amazon's Mechanical Turk in September 2016. In the pilot study, each respondent evaluated six pairs of immigrant groups. Prior to completing the conjoint tasks, respondents answered a battery of demographic questions. Respondents were paid $0.25 for completing the survey, and on average, the survey took respondents six minutes to complete.

The conjoint used in this pilot study differed from the conjoint in the main study in the following ways. First, the six origin countries reflect immigration to the United States instead of Germany, as were: the Dominican Republic, India, Mexico, Nigeria, the Philippines, and Syria. Second, the possible distributions of the 60 immigrants across the 6 origin countries were: (60, 0, 0, 0, 0, 0,). (40, 20, 0, 0, 0, 0), (30, 20, 10, 0, 0, 0), (20, 20, 20, 0, 0, 0), (15, 15, 15, 10, 5, 0), and (10, 10, 10, 10, 10, 10). Third, two additional attributes were presented for each group, their work experience (<1 year, 1 year, 3 years, and 5 years), and the share with basic English skills (0%, 10%, 20%, and 30%).

The main outcome from the pilot study - *Settlement Preference* - is similar to the outcome from the main study. For each pair of immigrant groups, respondents were asked "Which of these groups of immigrants would you prefer settle in your community?" Groups preferred for settlement were coded as 1, while groups not preferred were coded as 0. To analyze the responses to the pilot, I fit an OLS model with standard errors clustered by respondent. The attributes included in this model are *Young Men*, *Education*, *Work Experience* and *English Skills*. The results of this model are shown in Table C.7.

In Table C.7, the estimates for the levels of *Young Men* are of primary interest. As in the main study, groups with many young men are preferred for settlement at lower rates. Specifically, groups with 75% and 100% young men suffer penalties of approximately 7 and 11 percentage points, respectively. The Mechanical Turk respondents appear less opposed to groups with small numbers of young men than the German respondents, however: groups with 25% and 50% young men are not selected at rates significantly different than groups with no young men. These results suggest that opposition to young men is (1) not exclusive to the German context but also (2) potentially less strong outside of Germany.

Table C.7: Results from Mechanical Turk Pilot Study

	Model 1
Intercept	0.255^{***}
	(0.039)
Share of Young Men:	
25%	0.030
	(0.031)
50%	-0.006
	(0.033)
75%	-0.068^{*}
	(0.033)
100%	-0.108^{**}
	(0.037)
Share with University Education:	
10%	0.037
	(0.028)
20%	0.117^{***}
	(0.029)
30%	0.182^{***}
	(0.029)
Amount of Work Experience:	
1 year	0.068^{*}
	(0.028)
3 years	0.124^{***}
	(0.029)
5 years	0.173^{***}
	(0.032)
Share with English Skills:	
10%	0.072^{*}
	(0.029)
20%	0.142^{***}
	(0.033)
30%	0.194^{***}
	(0.034)
R^2	0.069
N.	2,352

Note: Estimates are from a weighted OLS model with standard errors clustered by respondent.The omitted categories are 0% (Young Men, Education, and English Skills) and < 1 year (Work Experience). $^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

Appendix D: Pre-Analysis Plan for Conjoint Survey

Note: What follows is the exact text of the pre-analysis plan for the conjoint survey experiment analyzed in Chapters 3 and 4 of this dissertation. The pre-analysis plan was registered with EGAP on November 11, 2016, and is available at `http://egap.org/registration/2258`. *An amendment was made to the pre-analysis plan on December 13, 2016, prior to the implementation of the study; this amendment was due to a change in sample provider and is described at the end of this appendix. EGAP was notified of this amendment, but did not update the published pre-analysis plan accordingly.*

This pre-analysis plan describes the experimental component of "Immigrant Diversity and Native Attitudes Towards Immigration". This project investigates the role of diversity among immigrants in native's attitudes towards immigration, making the argument that diversity among immigrants makes natives more tolerant and welcoming of natives. This document proceeds as follows. First, I describe the background and rationale of the study. In this section I clearly state my hypotheses of key theoretical interest. Next, I outline the design of the experiment, a conjoint survey. Third, I describe the implementation of the survey in Germany, in cooperation with Respondi. Fourth, I describe my analysis plan, which is based on a series of regressions. I conclude with a power analysis that indicates my experiment is sufficiently powered to test my hypotheses.

D.1 Background and Explanation of Rationale

Fully understanding why and when immigrants are able to integrate also requires understanding the determinants of natives' attitudes towards immigrants. These attitudes can impact the immigration positions of parties and the ease with which immigrants are able to integrate. As such, the determinants of these attitudes have been a main topic in the immigration literature. One set of scholars has investigated the link between an economic threat posed by immigrants and natives' attitudes towards immigrants (Hainmueller and Hiscox 2010; Malhotra, Margalit and Mo 2013; Scheve and Slaughter 2001). This line of research has strong theoretical underpinnings, yet has often had inconclusive findings. The other major strand of this literature shows a strong link between concerns of cultural threat and anti-immigrant attitudes (Card, Dustmann and Preston 2012; Citrin et al. 1997; Hainmueller and Hangartner 2013; Sides and Citrin 2007). Studies have specifically shown that immigrants seen as failing to integrate culturally (Sniderman, Hagendoorn and Prior 2004) and not attempting to learn the native language (Hopkins 2015) can spur anti-immigrant attitudes among natives.

The impact of local contexts on attitudes towards immigrants has also received attention in the literature. The key variable in this literature has been proximity to immigrant groups, with arguments suggesting this will reduce negative stereotypes (Fetzer 2000; McLaren 2003), that proximity's effect is conditional on demographic changes (Hopkins 2010; Newman 2013), or that this effect varies by group (Ha 2010). Results in this literature, often focused on Hispanic immigrants in the United States, are often contradictory. This project argues that this focus on proximity and group size misses an important characteristic of local immigrant communities: diversity among immigrants at a local level. In short, I argue that low levels of immigrant diversity, in terms of ethnic group or national origin, prevent immigrants from contributing to the economy, decrease the pressure on immigrants to culturally adapt to their new country, and increase fears about crime. All three mechanisms are expected to have the same effect on natives: increase their opposition to immigrants.

Diversity matters for immigrant's contribution to the local economy through three channels. First, diversity impacts the size and density of immigrants social networks: in a homogenous community, most immigrants will be able to draw upon a much larger and denser social network. This network will provide access several goods and services at a lower cost than they could be obtained normally; this should decrease immigrant's incentive to participate in the labor market. Second, immigrants in a high-diversity context, without access to a dense network of co-ethnics, will be more likely to want to actively participate in the labor market, as a way of increasing their social network and to become part of the community. Third, immigrants in a high-diversity context are likely to have a more diverse set of skills and skill levels. This diverse skill set means that immigrants will be able to more efficiently integrate in the labor market, as they are less likely to be competing with one another for a fixed amount of positions in a single sector of the economy. Through these channels, there is clearly more potential for diverse immigrant communities to positively contribute to the local economy. This increased potential for economic contribution should ease native's concerns about immigration.

Immigrant diversity also impacts the pressure on immigrants to adapt culturally. When a community's immigrants come from a variety of origin countries, it becomes more likely that immigrants will have jobs with natives or immigrants from other countries. It also becomes less likely that they will be able to shop at stores run by co-nationals, and opportunities for socializing with co-nationals will be fewer. Hence, learning the language of the new country becomes more important for success economically and socially. In contrast, when diversity is low, immigrants can more easily get by without learning the language of their new country. Furthermore, enclaves will not only be more likely to exist, but will also be larger when immigrants are less diverse. In turn, this means immigrants will be spending more time with co-nationals, thereby reducing the pressure for them to adapt to native cultural norms. This argument suggests that decreasing immigrant diversity makes it easier for immigrants to forgo cultural adaptation. Following the literature on cultural threat (Citrin et al. 1997; Sniderman, Hagendoorn and Prior 2004), this will increase natives' level of cultural threat and increase natives' opposition to immigration.

Finally, I argue that low diversity among immigrants can lead natives to have increased anxiety about crime and security. A low-diversity situation increases the likelihood that natives will be repeatedly encounter the same distinct other group, leading to the development of "us-vs-them" group identities. These sort of social identities cause fear and

distrust towards members of the out-group, a manifestation of which is a fear that the out group will perpetrate crime against one's group. In addition, the denser social network of low-diversity immigrant communities means that marginalized immigrants are more likely to come into contact with other marginalized immigrants. These clusters of marginalized immigrants create opportunities for radicalization, and can become fertile recruiting grounds for terrorist and criminal organizations. In contrast, a more diverse immigrant community prevents fewer opportunities for marginalized immigrants to cluster, preventing these opportunities for radicalization. Homogenous immigrant communities can also more easily overcome collective action costs and have less to fear from exclusion or retribution by natives than immigrants belonging to one of many small groups in a locality. As a consequence, it may be easier for frustrations among homogenous immigrant communities to boil over into protests or riots, which threaten the security of natives. Together, these arguments suggest that there are reasons natives should be more concerned about crime and security when immigrant communities are homogenous as opposed to heterogenous. It follows that low diversity will provoke opposition to immigration.

D.2 Hypotheses to Be Tested

The primary hypothesis of this study is that opposition to immigration will be lower when immigrant communities are more diverse. The chief mechanisms that I argue this effect operates through are reducing the perceptions of threat held by natives about immigrant integration. As such, I also have three secondary hypotheses. First, I hypothesize that highly diverse immigrant communities lead natives to feel more positive about immigrants potential contribution to the local economy. Second, I hypothesize that a low-diversity immigrant community is likely to provoke more cultural threat than a high-diversity community. Third, I hypothesize that natives will see immigrants as posing less of a threat to their safety when immigrant communities are more diverse. I now turn to explaining a survey experiment that I will use to test my primary and secondary hypotheses.

D.3 Experimental Design

The experiment is a choice-based conjoint design carried out in a survey context. Conjoint experiments have been successfully used in political science research (e.g. Bechtel and Scheve 2013; Hansen, Olsen and Bech 2015), especially in the study of immigration attitudes (e.g Hainmueller and Hopkins 2015; Bansak, Hainmueller and Hangartner 2016). These experiments elicit respondents' preferences over the individual dimensions of some multidimensional phenomenon by repeatedly asking respondents which of of multiple examples of the phenomenon they prefer. In the current context, respondents are asked to rate groups of immigrants for settlement in the respondent's community. I will show respondents two immigrant group profiles, including information on origin countries, education, age and gender of the immigrants. Below the two profiles, I will ask respondents a series of questions about their preferences and opinions on the groups.

After being shown a consent information letter, answering demographic questions[10] and reading a brief introduction, each respondent will rate four pairs of immigrant groups,

[10]Demographic question wording is shown in the appendix.

with each new choice task on a new screen. There are nine attributes per immigrant group. The first seven attributes describe to the group's composition by origin country, and it is here that the level of diversity - the treatment of primary theoretical interest - is determined. First, *Group Size* is fixed at 60 for all groups. This is done to isolate the effect of immigrant diversity separate from the size of an immigrant group. The next six attributes describe the number of immigrants from each of six countries: *Afghanistan*, *Albania*, *Eritrea*, *Nigeria*, *Serbia*, and *Syria*. The order in which the countries are presented is randomized across respondents but is contrast for each respondent across his/her four comparisons.

The number of immigrants per country is determined by the *Diversity* treatment, which is randomly selected as one of *Low*, *Medium*, or *High* for each profile. The different *Diversity* treatments are each ways of dividing the total group size, 60, into six parts. These six parts are then the number of immigrants per country for the group. Table D.1 shows how each of these three treatments divides 60 into six parts. The *Low* diversity treatment assigns all 60 immigrants a single country. In the *Medium* diversity treatment, three of the six countries are represented in the group, although one country clearly makes up a larger share of the group than the other two. The *High* diversity treatment maximizes diversity, as all countries are represented in the group in equal size. Once the *Diversity* treatment is selected, the order of the six numbers is randomized and presented to respondents alongside the country names.

Table D.1: Three Diversity Scenarios

	Low	Medium	High
Country 1	60	30	10
Country 2	0	20	10
Country 3	0	10	10
Country 4	0	0	10
Country 5	0	0	10
Country 6	0	0	10
Total	60	60	60

Note: Cells represent numbers of immigrants.

The diversity treatment has the appealing aspect that it is rather subtle. Respondents will be required to look at multiple pieces of information to draw the inference that one group is more diverse than the other. This corresponds with my theoretical argument: high diversity indirectly leads natives to see immigration more favorably, by leading to improved expectations of integration. Hence, my argument is not that there is an innate preference for diversity for diversity's sake. In fact, that there may be such an effect is an additional reason to use a subtle diversity treatment such as this. By eschewing a more direct statement about diversity in the group, I minimize the chance that my treatment captures some intrinsic value respondents place on diversity.

The other two attributes in my conjoint study are *Education* and *Young Men*, selected because they are both heuristics for multiple types of threats natives feel about immigration. *Education* describes the share of the group with a university education. This is

Table D.2: Example Immigrant Groups

	Group A	Group B
Number of immigrants per country:		
Syria	0	30
Afghanistan	0	20
Albania	60	0
Eritrea	0	10
Nigeria	0	0
Serbia	0	0
Total	60	60
Group Traits:		
Share with university education	0%	20%
Share of male immigrants under age 25	25%	50%

randomly selected from 0%, 10%, 20% and 30%. Education levels are a good heuristic for integration potential in economic and cultural realms, and it is known that highly educated immigrants are generally preferred (Hainmueller and Hopkins 2015). *Young Men*, which is the share of men under age 25 in the group, is randomly selected from 0%, 25%, 50%, 75% and 100%. I include this attribute to tap into both security and cultural concerns of natives. Due to the 2015 New Year's Eve assaults in Cologne and fears about ISIS members entering Europe during the 2015 migrant wave more generally, immigrant communities containing large numbers of young men are likely to be more make natives question their security. Further, to the extent that young males are likely to either start families or seek to have their spouses follow them to the host country in the coming years, they will also induce fears of cultural threat.

These two attributes are in the experiment for two reasons. First, these attributes make my test of diversity's effect harder. As I describe above, the *Diversity* treatment is rather subtle. In contrast, *Education* and *Young Men* are easily used heuristics that require respondents to process only a single piece of information. If my experiment reveals an effect of diversity on attitudes even when presented alongside these two more easily accessed pieces of information, we can have more confidence in the results. Second, the inclusion of these two attributes will allow for an assessment of the relative importance of diversity in driving attitudes towards immigrants. Note, I do not include these two attributes to directly test their effects on support or opposition towards immigrant groups, and do not state any specific hypothesis about their effects.

The nine pieces of information about immigrants are presented to respondents as follows. First, the breakdown of each immigrant group by country is always presented. Next is either *Education* or *Young Men*; the order of these two traits is randomized across respondents and then held constant across the choice tasks. The two immigrant groups are referred to as "Group A" and "Group B" in the description of the characteristics and in the questions that follow. Table D.2 below presents an example of the immigrant groups respondents will see.

After viewing the two immigrant group profiles, respondents are asked seven items

per comparison task. First, they are asked to choose which of the two groups they prefer to be settled in their community. Then, for each group respondents will be asked how much they agree/disagree with three statements. First is that the group would be a safety concern in the respondent's community. Second is that the group will adapt well to the respondent's culture. Finally, is a statement that the immigrants will take jobs away from locals. These agree/disagree questions are each on seven-point scales. The order of these statements along with whether the statements about Group A or Group B are presented first is randomized in every comparison. These three items allow me to investigate the mechanisms through which diversity impacts natives' attitudes. Specifically, they allow me to see if fears about cultural differences, crime, or job loss are impacted by diversity. The exact wording of the questions along with the introduction text for the survey are included in the appendix at the end of this plan.

D.4 Experiment Implementation

I will implement my experiment by contracting with Respondi. The experiment will be administered to a sample of 2,000 Adult, voting-eligible German respondents from their German panel, with representativeness on age, gender, state, and education. It will be in the field for 10 days, during December 2016. Respondi will provide only the sample; the survey itself will be hosted on Qualtrics. Respondents will be screened based on age and citizenship; those 17 years and younger or without German citizenship will be screened out. The experiment was approved by the Washington University Institutional Review Board. The experiment will be administered in German; translation was performed by the author.

D.5 Main Tests

To analyze the results of the conjoint experiment, I will run a series of linear regressions. The unit of analysis in each model will be the respondent-profile dyad. There will be 2000 respondents $\times$ 4 comparison tasks $\times$ 2 profiles per task = 16,000 observations in the final analysis (minus observations are dropped due to non-response on the outcome variable). The quantity of interest in the analysis is the *average marginal component effect* (ACME), as described by Hainmueller, Hopkins and Yamamoto (2014). The ACME for each immigrant group attribute is how this impacts the group's probability of being preferred for settlement or their rating on the scale questions. Note that by design, the effect of the number of immigrants from each individual country is not identified. This is because the number of immigrants per country are forced to sum to 60, meaning that the number of immigrants from any one country is a linear function of the other five countries. Consequently, the individual country effects are not estimated in the analysis. The identified effects of interest are the ACME's of *Diversity*, *Education*, and *Young Men*.

Because the assignment of these attributes to profiles is fully randomized, these quantities can be estimated through OLS regression, where each attribute enters as a series of

dummy variables. Thus, I will fit regressions of the following form:

$$\begin{aligned} Y &= \alpha + \rho_1 \textit{Diversity} = \textit{Low} + \rho_2 \textit{Diversity} = \textit{High} \\ &+ \gamma_1 \textit{Education} = 10\% + \gamma_2 \textit{Education} = 20\% + \gamma_3 \textit{Education} = 30\% \\ &+ \delta_1 \textit{Young Men} = 25\% + \delta_2 \textit{Young Men} = 50\% \\ &+ \delta_3 \textit{Young Men} = 75\% + \delta_4 \textit{Young Men} = 100\% + \epsilon \end{aligned}$$

where Y a placeholder for one of the four outcome variables, and *Diversity*, *Education*, and *Young Men* each enter as a series of dummy variables. For the profile choice question, the outcome variable is coded as 1 for the selected group and 0 for the unselected group. The three agree/disagree questions are the other outcome variables. They are all measured on 1-7 scales, coded from 1 for "strongly disagree" to 7 "strongly agree". For the three attribute categories, the excluded categories will be medium diversity, 0% education, and 0% young men. The estimated parameters ρ, γ, and δ are thus the AMCE of each of the levels of the attributes, in comparison to their respective baseline level. Finally, ϵ represents a respondent-profile level error term. Standard errors are clustered by respondent, to account for correlated errors across a respondent's tasks and for the fact that within a task, when one profile is chosen, the other is, by design, not chosen. Further, the regressions will be weighted to account for differences between the sample and population on age, gender, state, and education. Two sided hypothesis tests will be used to test the significance of the ACMEs of the attribute levels. Additionally, I will conduct F tests for the joint significance of all the levels for each of the three attributes (*Diversity*, *Education*, and *Young Men*).

For the purpose of assessing the primary hypothesis of my study, I will rely on the effects of *Diversity* in the models with the binary profile choice outcome and the settlement scale outcomes. To test my three secondary hypothesis, I will rely on the effects of *Diversity* in the models with the outcome as one of the three agree/disagree items about economic, cultural, and security threats. For both the primary and secondary hypotheses, the prediction in terms of parameter estimates is $\rho_1 < 0$, $\rho_2 > 0$, and hence that $\rho_1 < \rho_2$.

D.6 Power Analysis

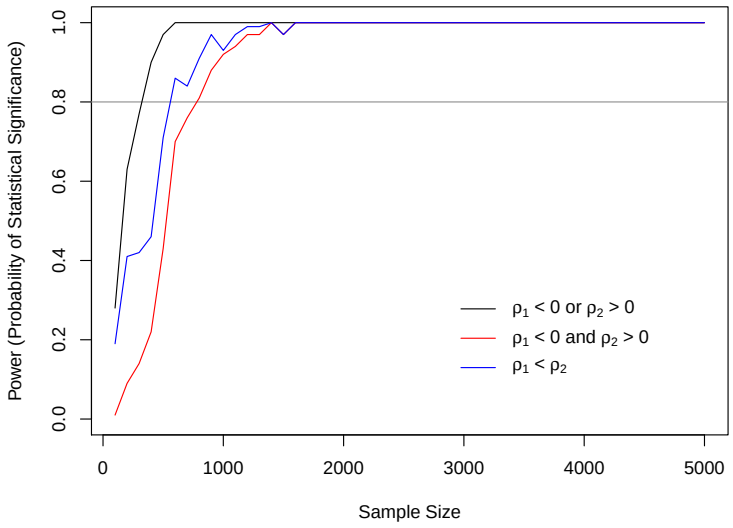
My study will have a sample size of 2,000 respondents, which when combined with my conjoint analysis yields a dataset of 16,000 observations. To ensure that this will be a sufficient number of respondents to detect the effects of diversity, I conducted a simulation based power analysis. In this simulation, I considered sample sizes between 100 and 5,000 in intervals of 100. For each sample size, I created and analyzed 100 simulated datasets. These datasets have the binary profile choice variable as the outcome, and do not account for the other attributes in my study, *Education* and *Young Men*. Each dataset has $n \times 4 \times 2$ observations, as in my study. Further, the simulations account for the correlation resulting from the forced choice outcome by simulating the outcome variable in pairs, and requiring each pair to sum to one. In other words, I randomly select the outcome variable for all of the odd numbered observations, and then select the subsequent even numbered observation so that the pairs sum to one. I also record in the simulation which observations correspond to each simulated respondent; this allows me

to fit clustered standard errors, as I will do in my actual analysis.

The power analysis considered the three hypotheses above: $\rho_1 < 0$, $\rho_2 > 0$, and $\rho_1 < \rho_2$. For each set of 100 datasets, I recorded the proportion offering statistical support that (a) either $\rho_1 < 0$ or $\rho_2 > 0$, (b) both $\rho_1 < 0$ and $\rho_2 > 0$ and (c) $\rho_1 < \rho_2$. To do this a fit a single linear model including coefficients for ρ_1 and ρ_2. Also, to account for the correlated outcomes within each choice task, all of the models are fitted using standard errors clustered by (simulated) respondent. The hypotheses in the simulation analysis are tested at the $\alpha = 0.05$ level. The appendix includes the code used for these analysis.

The power analysis requires assumptions about the effect of diversity. First, because I do not have a strong prior about the magnitude of the differences in diversity represented by my treatments, I assume that the magnitude of ρ_1 and ρ_2 are equal. Second, I need to assume the effect sizes of ρ_1 and ρ_2. To do this, I draw on the estimated effects from other conjoint analyses, notably Hainmueller and Hopkins' (2015) article. They find significant effect sizes ranging in magnitude from approximately .05 to 0.2. For the purpose of this power analysis, I assume that if diversity has an effect, it will be of a similar magnitude as the effects Hainmueller and Hopkins found. To be conservative, I choose the lower bound of the their effects, and set $\rho_1 = -0.05$ and $\rho_2 = 0.05$ for the purposes of the power analysis. Figure D.1 displays the results of this power analysis. As can be seen, my experimental design is sufficiently powered with a sample size of 2,000 to uncover ρ_1 and ρ_2 estimates of magnitude 0.05.

Figure D.1: Power Analysis Results for Immigrant Diversity Experiment



Note: Results of 100 simulated datasets per sample size. Gray line indicates conventional .8 power level.

D.7 Explanation of Amendment

This is the second version of this pre-analysis plan posted on EGAP. The main change in this amended version is the change of survey firm with whom I will implement the study. Previously, I was going to implement the study through YouGov. This has now been

changed to Respondi. The change to Respondi also necessitated the addition of screening measures, to ensure that respondents to the survey meet qualifications for participation (over 18 years of age and hold German citizenship). The only other change in this amended version is that one of the items in the agree/disagree question matrices was was dropped from the survey. Specifically, the question about whether respondents agree/disagree that the group should be settled in their community was dropped, as the researchers felt this question was too similar to the forced profile choice question and because the researchers wanted to make the survey slightly shorter.

D.8 Survey Wording

D.8.1 English Original

Survey Introduction

We're interested in your opinions about different groups of immigrants. We will present you with a series of pairwise comparisons of two groups of immigrants. Please review this information carefully and answer the questions that follow. We'll ask you to repeat this exercise of pairwise comparisons of immigrant groups four times.

Demographics

1. Please state your gender.
2. In what year were you born?
3. In which federal state do you live?
4. What is the highest education level you have completed?

Question Wording

1. If you had to choose between them, which of these two groups would you prefer be settled in your community?

   Please indicate the degree to which you agree or disagree with each of the following statements for **Group X**:

2. **Group X** would be a safety concern for my community.
3. **Group X** would adapt well to German culture.
4. Few members of **Group X** will find jobs in my community.

D.8.2 German Translation

Survey Introduction

Als nächstes interessieren wir uns für Ihre Meinungen zu verschiedenen Einwanderergruppen. Wir stellen Ihnen dazu eine Reihe paarweiser Vergleiche von zwei Einwanderergruppen vor. Bitte lesen Sie diese Information sorgfältig und beantworten Sie die

folgenden Fragen. Wir werden Sie bitten, vier solcher Vergleiche vorzunehmen.

Demographics

1. Geben Sie bitte Ihr Geschlecht an.
2. In welchem Jahr sind Sie geboren?
3. Bitte geben Sie das Bundesland an, in dem Sie wohnen.
4. Welchen höchsten Bildungsabschluss haben Sie?

Question Wording

1. Wenn Sie sich entscheiden müssten, welche Gruppe würden Sie als Nachbarn in Ihrer Gegend vorziehen?

   Bitte geben Sie an wie sehr Sie folgenden Aussagen über **Gruppe X** zustimmen oder nicht zustimmen
2. **Gruppe X** würde ein Sicherheitsrisiko in meiner Gegend darstellen.
3. **Gruppe X** würde gut mit der deutschen Kultur zurechtkommen.
4. Wenige Mitglieder von **Gruppe X** würden Arbeitsplätze in meiner Gegend finden.

D.9 Power Analysis Code

```
rm(list=ls())
#install.packages("multiwayvcov")
#install.packages("coeftest")
library(multiwayvcov)
library(coeftest)

possible.ns <- seq(from=100, to=5000, by=100)
power.atleastone <- rep(NA, length(possible.ns))
power.bothtreatments <- rep(NA, length(possible.ns))
power.fullranking <- rep(NA, length(possible.ns))
alpha <- 0.05  #(two-tailed test at .05 level)
sims <- 100
rho.h <- 0.05
rho.l <- -0.05

#### Outer loop to vary the number of subjects ####
for (j in 1:length(possible.ns)){
  N <- possible.ns[j]
  p.LvsM <- rep(NA, sims)
  p.HvsM <- rep(NA, sims)
  p.HvsL <- rep(NA, sims)
```

```
c.LvsM <- rep(NA, sims)
c.HvsM <- rep(NA, sims)
c.HvsL <- rep(NA, sims)

person <- rep(1:N, each = 8)
n_obs <- N*8

#### Inner loop to
     conduct experiments "sims"
     times over for each N ####

for (i in 1:sims){

  # N = respondents
  # J = choice tasks 4
  # K = Profiles 2
  treatment <- sample(c("L","M","H"), n_obs, replace = T)
  treatment_L <- treatment == "L"
  treatment_H <- treatment == "H"

  y <- rep(NA, n_obs)
  for( w in seq(1, n_obs, by = 2) ){
    y[w] <- rbinom(1, 1, prob = (.5 +
                                   rho.h*treatment_H[w] +
                                   rho.l*treatment_L[w] -
                                   rho.h*treatment_H[w + 1] -
                                   rho.l*treatment_L[w + 1]
                                 )
    )
    y[w + 1] <- ifelse(y[w] == 1, 0, 1)
  }

  frame.sim <- data.frame(y, person, treatment_L + treatment_H)

  fit.sim <- lm(y ~ treatment_H + treatment_L, data = frame.sim)
  vcov.sim <- cluster.vcov(fit.sim, frame.sim$person)
  model_out <- coeftest(fit.sim, vcov.sim)

  ### Need to capture coefficients and pvalues (two-tailed tests)

  c.LvsM[i] <- model_out[3,1]
  c.HvsM[i] <- model_out[2,1]
  c.HvsL[i] <-  c.HvsM[i] - c.LvsM[i]
  p.LvsM[i] <- model_out[3,4]
  p.HvsM[i] <- model_out[2,4]
  p.HvsL[i] <- pnorm( abs(c.HvsL[i]/
```

```
        sqrt( model_out[3,2]^2 + model_out[2,4]^2 )),
        lower.tail = F )
  }

  power.atleastone[j] <- mean(c.LvsM < 0 & c.HvsM > 0 &
        (p.LvsM < alpha | p.HvsM < alpha))
  power.bothtreatments[j] <- mean(c.LvsM < 0 & c.HvsM > 0 &
        p.LvsM < alpha & p.HvsM < alpha)
  power.fullranking[j] <- mean(c.HvsL > 0 & p.HvsL < alpha)
  print(j)
}
```