


Seeking Asylum in Germany: Do Human and Social Capital Determine the Outcome of Asylum Procedures?

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Abstract

Although the Refugee Convention and European asylum legislation state that decisions regarding asylum applications should be determined solely based on persecution and other human rights violations, the outcomes of asylum procedures may be subject to socioeconomic selectivity. This article is the first to analyse whether the human and social capital of asylum-seekers affect the results of decisions regarding their asylum applications and the length of asylum procedures based on a comprehensive longitudinal survey of 5,300 refugees in Germany. We find that socioeconomic and social capital resources increase the probability of approval of asylum applications and reduce the length of asylum procedures. Moreover, human capital is particularly rewarding for asylum-seekers from countries subject to severe political and civil rights violations, whereas social networks are more conducive when the case for protection is rather difficult to prove. Finally, asylum-seekers with a higher socioeconomic status before migration seem to be better positioned to efficiently instrumentalize social networks during the asylum process. Throughout the analysis, we control for variables that capture the violation of human rights and other forms of violence, changes in asylum policies and country-of-origin-specific fixed effects. The results are robust to different specifications and are representative for asylum-seekers arriving in Germany between 2013 and 2016. Altogether, similar to other claim-making processes, the asylum process seems to promote social inequality due to socioeconomic and social capital resources.

Introduction

Due to the increasing number of political, ethnic, and religious conflicts in Afghanistan, the Middle East, and the countries in the Horn of Africa, the global number of asylum-seekers and refugees had increased to 74.8

million by the end of 2018, with one-third of those seeking shelter outside their home countries (UNHCR, 2019). Based on the rules of the 1951 Refugee Convention, European and national law, most receiving countries have established procedures to verify the

applications of asylum-seekers. While it is almost self-evident that the approval and rejection of asylum applications fundamentally affect the future prospects of asylum-seekers, there is also ample evidence that lengthy asylum processes—which are typical for many European countries with large refugee populations (ECRE, 2016)—affect language and other human capital acquisition, spatial mobility, and access to housing and labour markets (e.g. van Tubergen, 2010; Hainmueller, Hangartner and Lawrence, 2016; Kosyakova and Brenzel, 2020). In this context, an approval of asylum application can be considered as a first (and *de facto* the most crucial) step towards integrating asylum-seekers into host countries' societies and economies since, prior to this point, they are situated in a state of legal and societal limbo.

In principle, the 1951 Refugee Convention, the asylum legislation of the European Union (EU) and the national legislation of many countries state that decisions on asylum should be determined based solely on persecution, human rights abuse, and other forms of violence (see, e.g. UNHCR, 2010). However, previous research examining country-level approval rates concluded that national (or even regional) interests may outweigh the humanitarian needs of applicants (e.g. Holzer, Schneider and Widmer, 2000; Neumayer, 2005). The empirical evidence on how individual characteristics and resources might affect the outcomes of asylum procedures is scant and mainly based on qualitative interviews or small quantitative samples. This literature suggests that—beyond legal factors such as an abusive situation in an asylum-seeker's home country—the chances for approval of asylum applications are structured by socioeconomic background and human capital characteristics (Montgomery and Foldspang, 2005; Keith and Holmes, 2009). Moreover, social ties seem to be important for learning about the asylum process (Koser, 1997; Koser Akcapar, 2010). Following the literature concerning integration policies, citizenship and sanctions, immigrants' socioeconomic resources may affect administrative decisions, such as naturalization and access to welfare benefits (e.g. Fording, Soss and Schram, 2011; Hainmueller and Hangartner, 2013). Given the high relevance of the legal status to asylum-seekers' well-being, unequal chances driven by human capital endowments and access to social capital may contribute to cumulative (dis-)advantages over the course of one's life.

Using the recent IAB-BAMF-SOEP Survey of Refugees in Germany (Brücker et al., 2016) and applying a discrete-time discrete-state space model (Gangl, 2004), we investigate the central hypothesis that factors beyond the rules of asylum legislation, i.e. the human

and social capital characteristics of asylum-seekers affect the length and outcomes of asylum procedures. To test this hypothesis, we focus on Germany for two main reasons. First, Germany plays a predominant role as a receiving country for humanitarian migration in the EU and in the Organisation for Economic Co-operation and Development (OECD), both historically (Rotte, Vogler and Zimmermann, 1997) and recently: it received approximately 1.4 million first-time asylum applications and processed the same number of decisions from 1 January 2015 to 31 December 2017 (BAMF, 2018). These numbers correspond to 44 per cent of the first-time asylum applications in the EU.¹ Given the large influx of asylum-seekers in Germany, this study is of general interest for understanding the forces driving asylum procedures in developed countries.

Second, we make use of the national dispersal policies in Germany, which rules out potential bias resulting from the self-selection of asylum-seekers into regions with better approval chances.² Having such a quasi-experiment is crucial for our analyses because there is pronounced regional variability in approval chances in Germany (Riedel and Schneider, 2017). Hence, national dispersal policies under which asylum-seekers are exogenously allocated by an external state authority minimize the likelihood that self-selection drives their inflows into particular regions.

The Legal and Institutional Framework

Administration of the Asylum Procedure

The central authority in charge of asylum applications processing is the Federal Office for Migration and Refugees (BAMF), which is structured as regional branch offices (40 of those existed in 2016). The decision on an asylum application is based on an interview with a BAMF official (often in the presence of an interpreter) where applicants are requested to outline their life circumstances and the reasons for fleeing their home countries, details on their travel route, and the persecution they experienced personally, in a comprehensive, logical, and non-contradictory way. They are obliged to provide any documents, photographs, or medical and police reports that may support their case. Before autumn 2015, both the interview and the decision were undertaken by one decision-maker, usually persons with considerable experience and paralegal training. Since then, a decision-maker undertakes their decisions based on the protocol written by the interviewer. There is no official time limit for the processing of asylum applications.

Reasons for Protection and Rejection of Asylum Applications

Protection in Germany is granted to individuals who are able to prove persecution for political reasons (*political asylum* according Art. 16a of the German Constitution) or political, religious convictions, or ethnic and other distinguishing characteristics by state and non-state actors (*refugee status* as defined by the 1951 Refugee Convention).³ If the previous criteria do not apply, protection may be granted if threats in home countries involve serious personal risks (e.g. due to wars, civil wars, and similar forms of violence) (*subsidiary protection*). Finally, shelter is provided in cases of serious and concrete danger to life, limb or liberty, including life-threatening short-term situations (e.g. a famine) in the country of origin (*national ban on deportation*).

Protection can be denied if (i) according to the Dublin Agreement, another ‘safe third country’ is in charge of processing the asylum application⁴; (ii) there is no cause left for an appeal after the rejection of an asylum application; (iii) the application is based on obviously economic motives; (iv) a general emergency situation has caused the flight; (v) contradictory or unsubstantiated statements have been submitted in the asylum procedure; and (vi) the applicant has refused to provide information relevant for identification (*outright rejection*). Applicants from so-called ‘safe countries of origin’⁵ are generally rejected (*manifestly unfounded cases*), except when they can supply facts validating persecution as outlined above.⁶

Legal Changes during the Period under Investigation

Between January 2013 and the beginning of 2018 (the period of examination in this study), three principal legal changes directly affecting the outcome and duration of the asylum procedure were introduced. First, Bosnia and Herzegovina, Macedonia, and Serbia were declared ‘safe countries of origin’ on 6 November 2014, and similarly, Albania, Kosovo, and Montenegro were declared as such on 24 October 2015. Second, between March 2016 and March 2017, asylum-seekers were clustered into four groups based on the approval chances of their applications (*cluster A*: approval rates of origin countries >50 per cent; *cluster B*: safe countries of origin), expected complexity (or simplicity) of handling the application (*cluster C*: complex cases), and travel route (*cluster D*: cases falling within the ambit of the Dublin Agreement). Cluster A, which focussed on asylum-seekers with good remaining prospects, had the highest priority and included Syrians, Eritreans, and

religious minorities from Iraq in 2016, whereas Somalia was added in 2017. Note that even before the introduction of this ‘cluster system’, the BAMF would prioritize asylum applications from different countries of origin in its decision-making processes (see [Supplementary Table SA1](#)). Third, further legal changes affecting the exchange of data across different government institutions and the individual identification of asylum-seekers were designed to ease the administration of the asylum procedure and may thus have also affected its duration ([Grote, 2018](#)).

The Role of Human and Social Capital

The 1951 Refugee Convention and German asylum law does not envisage personal characteristics—beyond individual potential for persecution and experiences of violence—to play any role in granting asylum and other forms of protection. Nevertheless, there are different channels by which human capital endowments and access to economic and other resources might affect the outcomes and the length of asylum processes.

Human Capital and Socioeconomic Status

Particularly imperfect information on persecution and other circumstances that may justify the approval of asylum claims implies that the asylum procedures become ‘not only a legal but also a social construct’ ([Dahlvik, 2017](#): p. 373). This imperfect information challenges the argumentation and reasoning for both sides—asylum-applicants and decision-makers. As a result, decision-makers can capitalize not only on the objective information they possess but also on the power they have ‘to define what constitutes a fact’ ([Dahlvik, 2017](#): p. 374). In this perspective, decision-makers appear as ‘street-level bureaucrats’ ([Lipsky, 1980](#)) because of their ample discretion regarding rules and law enforcement, considerable room for subjective judgements and asymmetric power. Given the scope of imperfect information and uncertainty in the asylum process, decision-makers have enough room for manoeuvre despite official regulations and rules and, hence, may favour particular asylum-seekers at the expenses of others (see also [Riedel and Schneider, 2017](#)).

The existing literature on approval rates argues that asylum decisions might be opportunistically affected by characteristics of asylum-seekers which may promise economic benefits ([Holzer et al., 2000](#); [Keith and Holmes, 2009](#); [Rottman, Fariss and Poe, 2009](#)). For instance, educational credentials signal better skills or productive knowledge, work motivation and other socially

desirable attributes (Arrow, 1973; Spence, 1973). Consequently, decision-makers may infer on signals such as educational certificates, work experience, and other desirable characteristics that may affect the balance of asylum-seekers for the welfare state or the economy favourably. This line of reasoning is also pursued in the literature on naturalization, which shows a positive relationship between schooling and chances to obtain citizenship (e.g. Hainmueller and Hangartner, 2013; Mossaad et al., 2018). These arguments could suggest that a positive relationship exists between human capital characteristics and the probability of application approval. Similarly, decision-makers may prioritize cases promising more successful integration to encourage their faster labour market entry process and correspondingly lower the burden on the welfare state.

At the same time, asylum-seekers are not passive actors in the asylum process and observables such as economic and educational credentials may correlate with distinct behaviour. For instance, the literature on sanctions for welfare benefit recipients and more broadly on sanctions in the labour market has shown that welfare bureaucracies are less likely to penalize individuals with better educational credentials and those with higher (potential) incomes (e.g. Cherlin et al., 2002; Hasenfeld, Ghose and Larson, 2004; Zahradnik et al., 2016). This has been explained in terms of greater cooperation of higher-educated individuals (Zahradnik et al., 2016), their more profound knowledge of existing or possible rights (Abrego, 2011), and the bureaucratic system in general (Mood, 2006), as well as their higher ability to understand and comply with complex rules (Cherlin et al., 2002). Applying this deliberation to asylum-seekers, we assume that those with higher-educational (and socioeconomic) credentials are better informed about the legal scope of asylum-application process, sophisticated asylum procedures, and which kinds of factors may affect the outcomes and length of asylum procedures favourably.

Moreover, schooling as well as socioeconomic status positively correlate with various cognitive (e.g. problem-solving, intelligence, verbal ability, and memorizing) and non-cognitive abilities (e.g. communications skills, effort, motivation, and self-efficacy) (Heckman, Stixrud and Urzua, 2006). These abilities may increase the chances of presenting the case for asylum as a coherent and (internally and externally) consistent story, i.e. in a 'logical, comprehensive and non-contradictory way', as requested by the BAMF (2016). Likewise, more educated asylum-seekers are likely to be more knowledgeable of general issues such as geography, political parties, and dates of events in the country of origin.

This, in turn, may cause the decision-maker to place greater trust in the validity and credibility of the arguments put forward by the applicant and, hence, increase the chances for approval but also accelerate the whole asylum process (Herlihy, Gleeson and Turner, 2010; Jacquemet, 2015; Dahlvik, 2017).

Finally, higher-educational and socioeconomic credentials correlate with higher levels of political activity as well as more liberal positions across a range of political and social values (Campbell and Horowitz, 2016), implying a higher likelihood of being subject to political persecution in authoritarian origin countries and an increased likelihood that asylum applications are approved in Western countries.

In summary, we hypothesize that

H1: Higher-educational attainment and socioeconomic status increases the approval probability and accelerates asylum procedure.

In our data, educational attainment is measured as is common in the human capital literature by years of schooling and professional education. Socioeconomic status is measured in terms of the subjectively assessed socioeconomic position before migration relative to others in the origin country. In the literature on migrants' educational selectivity, the relative socioeconomic position may reflect unobservable characteristics such as skills, motivation or drive to succeed, cognitive resources or access to important resources conducive for the attainment of higher socioeconomic position conditional on the institutional constraints in the country of origin (Feliciano, 2005; Ichou, 2014). In this regard, we may expect a positive effect of a higher socioeconomic status conditional on educational attainment, where this residual effect captures non-observable abilities.

Language Proficiency

The literature on determinants of asylum approvals appraises the knowledge of destination country language in the asylum process. Proficiency in the destination country language is arguably a major advantage for 'the ability to present one's case and to be questioned in the language of the decision-maker' (Rottman et al., 2009: p. 16). Moreover, given that governmental forms are complex and written in a technical language, better language proficiency is pivotal for the comprehension of administrative language and handling of the bureaucratic asylum process. Another potential mechanism—echoing in the literature on naturalization processes (Hainmueller and Hangartner, 2013)—is that decision-makers could be more sympathetic towards asylum-seekers with better

destination country language proficiency due to better expected integration (Rottman et al., 2009). In this regard, we hypothesize that

H2: Greater German language proficiency increases the approval probability and accelerates the asylum procedure.

However, we might also find opposite patterns for the effect of language proficiency: anecdotal evidence from the US asylum hearings suggests that asylum-seekers without language proficiency are more likely to have an interpreter, who could adapt their translated stories for the decision-maker in order to increase the asylum-seekers' trustworthiness and credibility and, hence, approval chances (Rottman et al., 2009; Dahlvik, 2017).

Social Capital and Networks

Social capital—as a resource that can be mobilized via social networks (e.g. Lin, 1999)—may also affect the outcomes of asylum processes. Following network theory, social ties to other refugees who have arrived previously not only may lower the risks and costs of migration (e.g. Palloni et al., 2001) but could also provide access to specific information on the asylum procedure, e.g. tacit knowledge on socially acceptable behaviour and socially appealing answers during the interview (Koser, 1997; Koser Akcapar, 2010). Moreover, more general information on various aspects of asylum procedures and opportunities and hurdles that may arise during the asylum application and processing is spread through networks via communication devices and social media (Brekke and Brochmann, 2015). Finally, network members may directly affect the asylum procedures by, e.g. helping processing paperwork. The naturalization literature supports this claim and shows that having a larger network increases the likelihood of acquiring citizenship (Liang, 1994; Logan, Oh and Darrah, 2012). Thus, access to social capital via networks at destination is likely to provide valuable information on asylum procedures and reduce search costs. Altogether, we expect that

H3: Greater network density increases the approval probability and accelerates the asylum procedure.

The social network literature further stresses that it is not the availability of a social network per se that is essential but the strength and character of the ties (Granovetter, 1973). For instance, networks of friends (or acquaintances) have the advantage that they can be established deliberately, whereas family (or relatives)

networks are (mostly) given, such that the former are, for many purposes, more productive. The advantage of networks of friends may also hold true for asylum procedures: networks of friends might have accumulated more knowledge on the most efficient handling of the asylum process, whereas a random family network represents only average performance. Thus, we hypothesize that

H4a: Having a network of friends increases approval probability more than having a family network.

The type of network might have ambiguous effects on the length of the asylum procedure. On the one hand, based on the previous discussion, we expect higher productivity from a network of friends, which might contribute to reduced processing time. On the other hand, a family network might accelerate the decision-making process (i) since the identification of the asylum applicant could be more straightforward and (ii) because of a closer similarity among cases. Hence,

H4b: Having a family network has ambiguous effects on the length of the asylum procedure relative to a network of friends.

Interaction Effects

The assessment of the credibility of the asylum-seekers testimony is a crucial step in the asylum process and is based on internal and external consistency. Given the lack of evidence and proof for personal persecution in most cases, decision-makers often rely on the information on the country of origin to check the external consistency to merit the case for protection (Jacquemet, 2015; Dahlvik, 2017). Credibility is often subject to general checks and knowledge and the verification of standard statements. Hence, much depends on 'what they [asylum-seekers] say and how they say it' (Sweeney, 2009: p. 700). Accordingly, we hypothesize that human capital resources should be particularly beneficial in more 'complex' cases, i.e. those in which it is more difficult to convincingly outline the case for protection. This is likely the case for asylum-seekers originating from countries where the violation of political and civil right is less severe. Likewise, social capital should also be more profitable in these cases due to an informational advantage. Thus, we hypothesize that

H5a: The lower the violation of political and civil rights in the country of origin is, the larger the positive effect of human and social capital on the approval probability and the decision rate.

However, the statistical discrimination theory contrarily predicts that decision-makers might evaluate the chances of persecution higher for asylum-seekers who have more human capital and originate from countries with a higher level of violation of political and civil rights. As specified above, greater human capital implies more liberal values. Hence, rejected asylum-seekers with more human capital could be more subject to political persecution if they return to their origin-country with authoritarian regimes. The corresponding hypothesis predicts that

H5b: The higher the violation of political and civil rights in the country of origin, the larger the positive effect of human capital on the approval probability and decision rate.

Finally, previous research suggests that the advantages of social capital can vary by educational status. For instance, the labour market literature shows that social networks increase the employment prospects of low-skilled migrants in particular (e.g. [Edin, Fredriksson and Åslund, 2003](#)). Since the availability of social ties reduces the need to expend effort to seek information, social capital may compensate in cases of lower human capital. Accordingly, we expect

H6a: Greater positive effects of social capital on the approval probability and the decision rate for asylum-seekers with lower human and socioeconomic resources.

Furthermore, the status attainment literature stresses that ‘resources usually can be utilized to produce other kinds of resources as well’ ([Boxman, De Graaf and Flap, 1991](#): p. 53), inferring that individuals with more human capital could be more efficient in producing social capital (see also [Coleman, 1988](#); [Lin, 1999](#)). Thus, we may expect

H6b: Greater positive effects of social capital on the approval probability and decision rate for asylum-seekers with higher human and socioeconomic resources.

Data and Method

Data and Sample

We base our analysis on a recent longitudinal household survey conducted in Germany, the IAB-BAMF-SOEP Refugee Survey ([Brücker et al., 2016](#)), first launched in 2016.⁷ The data were sampled from the Central Register of Foreign Nationals (*Ausländerzentralregister*, AZR). The second wave was conducted in 2017, and the response rate was 67 per cent ([Brücker et al., 2019](#)). To cover more recent arrivals, an additional sample was

added in 2017. Altogether, our data provide information for approximately 7,500 asylum-seekers and refugees and are representative of the refugee population in Germany that arrived from 1 January 2013 to 31 December 2016 (irrespective of current legal status). The data were collected using computer-assisted face-to-face interviewing (CAPI) techniques. The questionnaires were available in seven languages (Arabic, English, Farsi/Dari, German, Kurmanji, Pashtu, and Urdu) including, if needed, support by interpreters or auditory instruments.

For our analyses, we consider asylum-seekers (i) with non-missing information on the status and timing of the asylum procedure,⁸ and the country of origin, (ii) who arrived or applied for asylum in 2013 or after, and (iii) who have applied for asylum in Germany for the first time. We excluded respondents with implausible application and decision dates from the analyses and those with missing values on the several model covariates. [Supplementary Table SA2](#) summarizes the information on the sample selection.

We organized the dataset into person-month observations, where, for each person, the observation period begins with the date (month and year) of the asylum application. The period ends either with the date of the asylum application decision or, if the decision has not yet been received (i.e. right-censored data), with the date of the (latest) interview. This end delivers an unbalanced panel of 5,348 persons and a total of 66,260 person-month observations. The average time period per person in the sample amounts to approximately 12 months. The observation window covers the period from January 2013 to February 2018.⁹

Variables

Dependent variables

We construct two dependent variables: whether the *decision on the asylum application* has been made in each month (yes = 1, 0 otherwise), and if so, whether the *asylum application* has been *approved* (yes = 1, 0 otherwise). We neglect the distinction between different types of approval or rejection because a more detailed classification (i) would quickly become too confusing and create problems for statistical inference and (ii) is less relevant for a more general test of our hypothesis since the individual consequences of the different types of approval or rejection are, with some qualifications regarding the residence permit length and family reunification opportunities, relatively similar. [Supplementary Table SA3](#) outlines additional details on the construction of the dependent variables and model covariates.

Independent variables

We proxy the respondents' human capital with the following variables: years of education, socioeconomic status, and work experience. *Years of education* is a continuous measure of self-reported years of schooling attended, vocational training, and college or university education before arrival in Germany. The variable is standardized to have a mean of zero and a standard deviation of one. *Socioeconomic status* in the country of origin is captured with categorical variable (low, medium, and high) composed based on respondents' self-reported economic status or earnings relative to the population average.¹⁰ *Work experience* is a binary indicator for having ever worked before arrival in Germany.

In our analyses, we are not able to directly capture German language proficiency during the asylum process. Instead, respondents' German language proficiency is approached via months spent in German language courses and overall language proficiency. *Months in German language courses* is a time-dependent variable that increases by one for each additional month in state-supported or private German language programmes. Apparently, learning German language in purposive courses positively correlates with German language proficiency (van Tubergen, 2010; see also Brücker et al., 2019). *Language proficiency* is a standardized mean of the self-reported speaking, writing, and reading skills on a scale from 1 ('Not at all') to 5 ('Very good') in English, in their native language and in the official language of the country of origin (if different from the native language). The theory of destination-language acquisition argues that better mastery of the mother tongue and other languages contributes to a better understanding of language structure and grammar and a higher ability to systematize language acquisition (Chiswick and Miller, 2001). We assume that proficiency in English, native language and the official language of the country of origin have not changed since arrival in Germany.

We address social capital through the respondents' pre-migration contacts in Germany and network density at destination (potential network size). For the pre-migration contacts, we consider the survey question on assistance during the move to Germany from any relatives or acquaintances who already lived there. We define two binary indicators: *support from acquaintances and friends* (yes = 1; 0 otherwise) and *support from relatives* (yes = 1; 0 otherwise). For the *network density at destination*, we rely on the data from DESTATIS (2019) and calculate the number of previous asylum-seekers and refugees as a share of the total population in each district (*Kreis*) in the year before the respondent arrived

in Germany.¹¹ The number of districts in Germany is 401, with a mean (median) of 65,801 (43,643) inhabitants per district. Our sample of asylum-seekers is distributed across 343 districts of the first arrival. Our network measure has an average value of 0.008 (standard deviation = 0.004; maximum = 0.079). That is, less than 1 per cent of the population in each district of assignment consisted of asylum-seekers and refugees. For the empirical analyses, we standardize the measure for networks.

Controls

To capture individual experiences of persecution and violence in origin countries, we account for (i) whether the respondents report that they *left* their countries of origin for reasons of violent conflict or war, discrimination, persecution, or forced recruitment, (ii) the respondents' subjective assessment of the *political and civil rights situation* in the origin countries as voiced in the survey, and (iii) the violation of political and civil rights in the origin countries as assessed by the combined *Freedom House Political Rights and Civil Liberties Index* (FIW; Freedom House, 2018). The FIW is measured yearly and, hence, is included as a time-varying covariate for each person-month observation. To absorb any further systematic differences across countries of origin, we account for *country (group) of origin* fixed effects aggregated into 11 groups: Syria, Afghanistan, Iraq, Eritrea, Iran, the remaining MENA countries, Russia, the remaining successor states of the former USSR, the West Balkans, the remaining countries in Africa, and the rest of the world. Since ethnic and religious minorities and politically active individuals might be disproportionately affected by persecution and violence, we control for the *religious affiliations* of the respondents, an indicator for whether individuals belong to *religious minority* groups, *interest in politics* and political attitudes opposing totalitarian regimes and theocracies—such as *liberal values on democracy and forms of government*.

Since the asylum legislation prevents the deportation of asylum-seekers with serious health problems (see above), we include combined synthetic measures for individual *psychical and psychological health problems*. *Traumatization experience* is controlled for because various post-traumatic symptoms, such as disturbances in memory performance, extreme avoidance behaviour, and a generalized mistrust of other people, may result in contradictory statements on actual events and misunderstandings, rendering the asylum-seeker's testimony non-credible (Rousseau and Foxen, 2010).

To address the changes in asylum and related policies in Germany, we control for asylum-seekers originating from *safe countries of origin* and countries with *good prospects to remain*. Applications from individuals of these groups may affect both approval chances and the duration of the asylum process since they became subject to a fast-track procedure. We consider institutional changes that occurred when the classification of countries into these groups and the cluster system became effective (see above). We proxy *Dublin cases* via residence of at least 3 months in a safe third country before having arrived in Germany. To absorb any further differences due to changes in the asylum legislation and the political climate, we introduce *time* fixed effects measured in 3-month periods for the observation window from January 2013 to February 2018. To control for time-invariant or long-lasting differences across regions (such as cultural determinants and long-term political preferences), which might correlate with the unequal treatment of asylum-seekers in one way or another (Holzer et al., 2000; Riedel and Schneider, 2017), we include *region* fixed effects measured via the Federal State of the first residence.¹²

Finally, we control for several demographic characteristics, such as *gender*, *age at the time of application*, and *arrival with other family members* since these variables may be associated with economic or other migration motives in one way or another (e.g. Holzer et al., 2000; Keith and Holmes, 2009). To absorb any systematic differences related to the survey design, we control for the *sample* of the survey and being a *non-respondent in wave two*. [Supplementary Table SA4](#) provides a data extract from our dataset with selected time-varying and time-invariant covariates.

Method

There are three potential threats to our empirical identification strategy. First, despite the central regulation of the asylum process, the power to decide individuals' asylum applications is decentralized in Germany and delegated to decision-makers in regional branch offices of the BAMF, thereby increasing the risk of non-harmonized asylum procedures across different regions. As a result, the asylum approval rates considerably vary by German federal states (Riedel and Schneider, 2017; see also Holzer et al., 2000 for Switzerland). The non-random residential sorting of asylum-seekers, e.g. due to their human or social capital, could undermine the ability to draw causal inferences. An important advantage of our empirical identification strategy refers to the national dispersal policies that determine the residential

allocation of asylum-seekers in Germany, which helps nullify the potential problems associated with residential self-selection.

Second, although our empirical analyses control for many relevant micro- and macro-level characteristics that may confound the relationship of interest, a strict causal inference is limited by potential problems related to the self-reported information embedded in the nature of observational data. This limitation particularly applies to the legal context in which decisions are made on a case-by-case basis by considering various characteristics of the applicant's individual case. Correspondingly, one should keep in mind that some of the asylum-seekers' unobserved characteristics (e.g. ability) affecting the asylum process are captured via observed human and social capital variables.

Third, consistent with our theoretical inquiry, we expect asylum-seekers with more positive characteristics to have not only a higher approval probability but also faster asylum decisions. Correspondingly, if asylum-seekers with a shorter asylum process are more likely to be approved, the sample of those with a decision regarding their asylum application could be biased towards approved cases. Hence, the outcome of the asylum application might be conditionally related to the decision rate. To overcome this challenge, we rely on the two-step identification strategy, which is based on the discrete-time discrete-state space model introduced by Gangl (2004). This model decomposes the attainment process for the legal status (i.e. the decision on asylum) into two components: the hazard rate at which the decision occurs and the attainment of the legal status conditional on having received the decision.¹³ This approach allows for the acknowledgement of a multidimensional relationship between the hazard of the decision and the outcome of that decision, in particular, if individuals who have received a decision on their asylum applications are not randomly selected.

Accordingly, we estimate a two-equation model as follows: first, we estimate the hazard rate at which an asylum-seeker receives a decision regarding his or her application, and second, we estimate the probability that an asylum-seeker receives an approval of his or her asylum application conditional on the decision made. To correct for (non-random) selection into the sample of asylum-seekers with a decision, we ideally have an exclusion restriction that affects selection (decision rate) but not the outcome (approval probability). For these purposes, we include two variables in the selection equation. First, we control for coming from the origin country which was subject to prioritized processing by the BAMF. Second, we account for (potential) pressure on

authorities in handling asylum applications by including the monthly ratio of the aggregated number of pending applications relative to the number of decided asylum applications. Appendix A outlines the formal notation of the estimated model, details on exclusion restrictions and further estimation details.

Results

Outcomes of the Decisions on Asylum Applications and Waiting Times

Table 1 presents the descriptive statistics on the legal status of the asylum-seekers by survey year. In 2016, approximately half of the asylum-seekers already had their

Table 1. Status of the asylum application, by survey year (in per cent)

Results of asylum application	Survey year 2016 (Wave 1)	Survey year 2017 (Wave 2)
Approval	49.24	71.30
Rejection	4.70	14.88
Censored	46.06	13.81
Observations	3,253	4,042

Source: IAB-BAMF-SOEP Survey of Refugees in Germany, own calculations. Design weights are used.

applications approved, 5 per cent received a negative decision, and the remaining 46 per cent were still waiting for a decision. In 2017, the share of approved asylum-seekers increased to 71 per cent. The share of those with a rejection tripled to 15 per cent, probably because non-prioritized cases—which also have lower approval chances—were largely postponed to the year 2017. In 14 per cent of the cases, the decisions were still pending.

Figure 1 depicts the cumulative incidence estimates for the duration of the asylum procedure until the decision on the application has been completed. The left panel presents the results for the participants for the whole sample, whereas the right panel provides the results of the second wave. The comparison between the two groups may reflect potential bias due to attrition (non-response in the second wave).

Figure 1 indicates a much faster rate for the approvals (solid curve) than the rejection decisions (dashed curve): the probability of receiving approval of the asylum application within 12 months amounts to 50 per cent, whereas the probability of being rejected in the same time amounts to only 8 per cent. The slope of the approval curve becomes flatter over time, meaning that the approval rate slows. The slope of the rejection curve becomes steeper after 18 months, suggesting that negative decisions are initially postponed but increase over

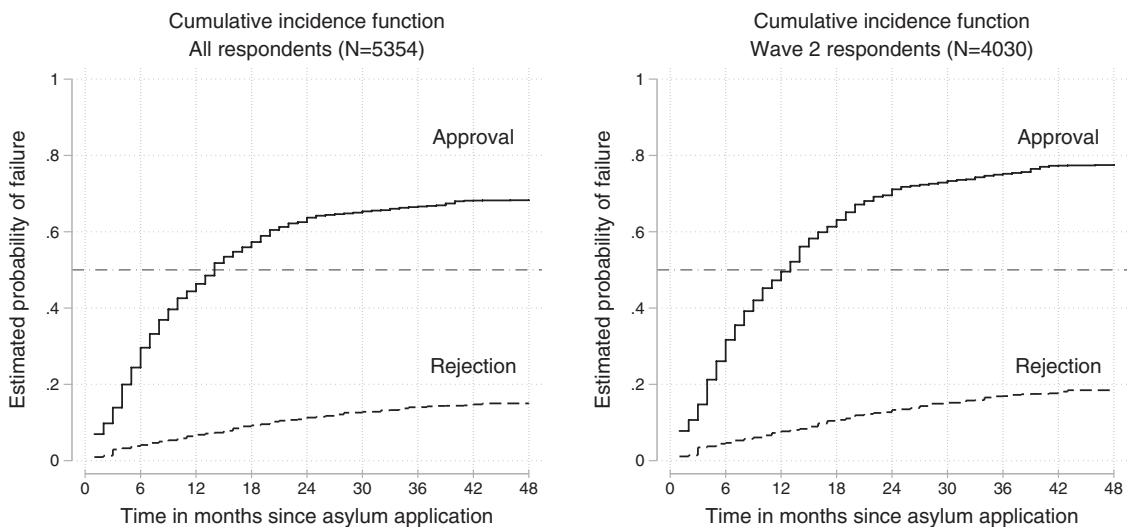


Figure 1. Probability of receiving an approval or rejection of the asylum application, competing risk approach

Notes: A cumulative incidence function estimates the risk of an event happening given survival up to time t conditional on a competing risk not occurring. Competing risks for the approval of an asylum application include rejection (left and right panels) and censoring due to non-response in wave 2 (left panel only). Competing risks for rejection include the approval of asylum application (left and right panels) and censoring due to non-response in wave 2 (left panel only).

Source: IAB-BAMF-SOEP Survey of Refugees in Germany, own calculations. Design weights are used.

time. The inspection of the curves for the second-wave participants renders similar conclusions.

Sample Characteristics

Table 2 provides initial evidence on how individual characteristics and origin country factors are related to the probability of receiving a decision on an asylum application and the different decision outcomes for the pooled sample.¹⁴

Asylum-seekers with approved applications had, on average, 10 years of education, 51 per cent of them had a medium and 29 per cent had a high-socioeconomic status before migration. The asylum-seekers with rejected or pending decisions had approximately 1 year less education and were more represented among those with a lower socioeconomic status. Approximately 70 per cent of all three groups had work experience. Language proficiency is higher among approved asylum-seekers than among other groups. Approved asylum-seekers spend less time in German language courses, presumably due to shorter asylum procedures on average (see Figure 1). Only a small share of the asylum-seekers reported support from friends and acquaintances before migration: 4 per cent of approved and 2 per cent of rejected asylum-seekers. Support from relatives before migration is more pronounced (on average 13 per cent) and indicates a positive correlation with the probability of application approval. The network density at destination seems to be higher among asylum-seekers with pending decisions, followed by approved and rejected asylum-seekers.

Approved asylum-seekers predominantly originate from Syria (62 per cent), followed by Iraq, Afghanistan, and Eritrea. In contrast, the remaining African countries together with Afghanistan are overrepresented among the rejected applicants and applicants without a decision. Asylum applications are more likely to be approved if (i) the asylum-seekers arrive from countries with low levels of political freedom and respect for civil liberties according to the FIW indices, (ii) they self-report lower freedom across different domains in their origin countries, and (iii) they originate from countries classified as those with 'good prospects to remain'. Asylum-seekers from safe origin countries and those who arrive via safe third countries (Dublin cases) are more likely to have their applications rejected or pending. Among the approved asylum-seekers, more than 80 per cent reported that they left their home countries because of war, and less than 50 per cent because of persecution, forced recruitment, and discrimination. Religious affiliation is less related to the asylum

outcomes, whereas religious minorities are more likely to receive either negative or no decision on their applications. Greater support of democratic values, better psychological health, and traumatic experiences during the course of flight is positively correlated with approval. Neither gender nor age is related to outcomes of asylum processes; however, those arriving with families are overrepresented among the approved asylum-seekers.

Multivariate Results

Table 3 presents the results of the bivariate probit hazard model in discrete time that simultaneously estimates the rate of the decision regarding the asylum application and the probability of approval of the asylum application conditional on having received a decision.¹⁵

We find clear-cut evidence of social selectivity in the asylum process. In particular—controlling for a range of individual- and structural-level covariates—a higher socioeconomic status, acquaintances' support, and a larger network at the destination apparently translate into a higher probability of approval of the asylum application. Expressed in terms of average marginal effects (conditional on selection), we find that having a higher socioeconomic status increases the probability of approval by 5 percentage points. Acquaintances' support raises the approval probability by 7 percentage points. Increasing the network density by one standard deviation raises the probability of approval by 2 percentage points. Education, language proficiency, work experience, and relatives' support show no statistically significant effects, whereas months in German language courses reduce the probability of approval.

Socioeconomic resources appear to accelerate the asylum process: the hazard rate of receiving a decision on an asylum application increases with the socioeconomic status before migration. Family network support seems to be beneficial, whereas network of friends and network density are not statistically significant. Since the interpretation of marginal effects is not straightforward in the survival analysis, we simulated the cumulative probability of receiving a decision on the asylum application by months since the application based on the estimated coefficients from the model (see Figure B1 in Appendix B). This simulation exercise reveals that the probability of receiving a decision of asylum-seekers with a high-socioeconomic status exceeds that of those with low-socioeconomic status by 4 percentage points 6 months after applying for asylum. The relatives' support at arrival adds a further 3 percentage points to the probability of having received a decision in the same time interval.

Table 2. (Selected) model covariates and the asylum status

Variables	Approved application Mean (SD)	Rejected application Mean (SD)	Censored Mean (SD)	Sample size
Years of education	9.97 (5.40)	8.52 (4.81)	7.63 (5.59)	5,261
Low-socioeconomic status	0.20	0.34	0.39	5,313
Medium-socioeconomic status	0.51	0.44	0.37	5,313
High-socioeconomic status	0.29	0.22	0.24	5,313
Work experience	0.68	0.71	0.66	5,354
Language proficiency	0.18 (1.00)	0.04 (0.97)	0.04 (0.95)	5,354
Months in German language courses	1.67 (3.33)	3.39 (5.40)	4.64 (6.06)	5,332
Support from acquaintances and friends	0.04	0.02	0.03	5,354
Support from relatives	0.15	0.12	0.11	5,354
Network density at destination	-0.03 (1.07)	0.08 (0.89)	0.10 (1.05)	5,062
Origin: Syria	0.62	0.10	0.12	5,354
Origin: Afghanistan	0.09	0.35	0.22	5,354
Origin: Iraq	0.14	0.09	0.10	5,354
Origin: Eritrea	0.06	0.02	0.03	5,354
Origin: Iran	0.02	0.06	0.05	5,354
Origin: Rest of MENA	0.01	0.04	0.05	5,354
Origin: RUS	0.00	0.02	0.05	5,354
Origin: Rest of former USSR	0.01	0.04	0.04	5,354
Origin: West Balkans	0.00	0.06	0.08	5,354
Origin: Rest of Africa	0.04	0.18	0.17	5,354
Origin: Rest	0.01	0.06	0.10	5,354
FIW	8.01 (13.98)	27.51 (18.94)	28.79 (19.77)	5,354
Political and civil rights situation (std.)	-0.07 (0.91)	0.29 (1.25)	0.40 (1.31)	5,056
Safe countries of origin	0.01	0.07	0.08	5,354
Good prospects to remain	0.34	0.10	0.10	5,354
Dublin cases	0.10	0.14	0.15	5,354
Left origin because of war	0.83	0.52	0.59	5,323
Left origin because of recruitment	0.47	0.23	0.31	5,323
Left origin because of persecution	0.49	0.48	0.43	5,323
Left origin because of discrimination	0.42	0.46	0.35	5,323
Religious affiliation: Christian	0.13	0.22	0.19	5,264
Religious affiliation: Islam	0.81	0.72	0.70	5,264
Religious affiliation: Non-religious	0.06	0.05	0.10	5,264
Religious affiliation: Other	0.00	0.01	0.02	5,264
Religious minority	0.22	0.46	0.33	5,264
Interest in politics	0.14	0.22	0.16	5,281
Liberal values on democracy (std.)	0.06 (0.93)	-0.20 (1.22)	-0.36 (1.38)	5,010
Liberal values on forms of government (std.)	0.09 (0.96)	-0.19 (0.93)	-0.15 (0.97)	4,409
Psychological health problems (std.)	0.09 (0.98)	-0.05 (1.05)	-0.12 (1.03)	5,316
Physical health problems (std.)	0.16 (0.93)	0.18 (1.03)	0.13 (0.96)	5,352
Traumatization experience	0.57	0.63	0.59	3,259
Non-reporting of traumatization experience	0.34	0.42	0.39	5,354
Male	0.73	0.74	0.79	5,354
Age at the time of application	29.96 (9.93)	28.58 (9.12)	28.13 (8.77)	5,354
Arrival with other family members	0.55	0.47	0.38	5,354
Imputed dates	0.02	0.01	0.04	5,354
Sample: M3	0.45	0.29	0.57	5,354
Sample: M4	0.34	0.27	0.25	5,354
Sample: M5	0.21	0.44	0.18	5,354
Non-respondent in wave two	0.13	0.09	0.53	5,354

Notes: Variation in the sample size (column 4) is due to differences in missing data across variables. In the multivariate model, we control for missing values in the variables of interest. SD, standard deviation.

Source: IAB-BAMF-SOEP Survey of Refugees in Germany, own calculations. Design weights are used.

Table 3. Impact of asylum-seekers' social and human capital characteristics on the decision rate and on the probability of approval of the asylum application

Variables	Log odds		Average marginal effect, p.p. ¹⁾	
	Coef.	(SE)	Coef.	(SE)
Probability of application approval				
Years of education	0.01	(0.04)	0.20	(0.00)
Medium (versus low) socioeconomic status	0.10	(0.08)	1.82	(0.03)
High (versus low) socioeconomic status	0.25**	(0.09)	4.57**	(0.07)
Work experience	-0.05	(0.08)	-0.93	(0.01)
Months in German language courses	-0.03***	(0.01)	-0.49***	(0.00)
Language proficiency	0.02	(0.04)	0.32	(0.00)
Support from acquaintances and friends	0.47*	(0.23)	7.28*	(0.22)
Support from relatives	-0.02	(0.09)	-0.34	(0.01)
Network density at destination	0.14**	(0.05)	2.49**	(0.02)
Constant	1.91***	(0.58)		
Hazard rate of decision				
Years of education	0.01	(0.01)	0.14	(0.00)
Medium (versus low) socioeconomic status	0.04+	(0.02)	0.48+	(0.00)
High (versus low) socioeconomic status	0.06*	(0.02)	0.69*	(0.00)
Work experience	-0.01	(0.02)	-0.15	(0.00)
Months in German language courses	0.00	(0.00)	0.04	(0.00)
Language proficiency	0.02	(0.01)	0.18	(0.00)
Support from acquaintances and friends	0.07	(0.05)	0.84	(0.01)
Support from relatives	0.06*	(0.02)	0.66*	(0.00)
Network density at destination	0.01	(0.01)	0.15	(0.00)
Constant	-0.66***	(0.16)		
Rho (u_x, u_y)	-0.10	(0.16)		
Controls	YES			
N of person-month observations	66,118			
LL	-15,381			
AIC	31,153			
BIC	32,927			
Degrees of freedom	93			

Notes: Significance level. The variables for years of education, language proficiency, and network density are standardized: the relevant coefficient corresponds to the effect of an increase by one standard deviation. Robust standard errors. SE, standard error; p.p., percentage points. For the full list of model covariates, refer to Variables section. For the probability of application approval, the average marginal effect is expressed as an average marginal effect conditional on selection. For the hazard equation, the average marginal effect is expressed as an average marginal effect for selection.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$ (two-tailed test).

Source: IAB-BAMF-SOEP Survey of Refugees in Germany, own calculations.

Elaborating on these results in light of our hypotheses, we expected a positive effect of education, work experience, and socioeconomic status on the approval probability and decision rate (*H1*). Since we find only positive effects of the socioeconomic status, our results only partly conform to our expectations. Given that the socioeconomic position is measured in relative terms, we may conclude that the main mechanism at place is unobserved individual abilities rather than observed human capital. Hypothesis *H2* predicting better asylum outcomes for those with greater German language proficiency find no empirical support. In turn, the relation is negative, which is in line with previous studies on

asylum hearings. Decision-makers are likely to be cautious in rejecting asylum-seekers. Since it is easier for them to understand asylum-seekers with better language skills, decision-makers are more likely to reject them (Rottman et al., 2009). We further expected better asylum outcomes for asylum-seekers placed in districts with larger network density (*H3*) and a greater benefit for those with friends' network relative to family network (*H4a*). Both hypotheses were supported for approval probability. Regarding the decision rate, while we expected ambiguous effects regarding the strength of the effects of networks consisting of friends and family members (*H4b*), only family networks seem beneficial.

Additional analyses (stepwise regressions, see [Supplementary Appendix SD](#)), which incorporate only explanatory variables without controls, show a significant effect of years of education and family networks on approval probability. These differences disappear after country of origin variables are included. This pattern reflects the fact that asylum-seekers are disproportionately more educated and have family support, characteristics which are positively associated with a positive decision; this pattern also reflects the fact that asylum-seekers originating from countries with better asylum prospects are more educated and have more relatives' support. For the hazard rate of decisions, stepwise analyses imply that the positive effect of education is mediated by language variables. In other words, more educated asylum-seekers received their decision faster due to their greater language and communication abilities.

Effect Heterogeneity

Subsequently, we introduce a series of interaction effect between the FIW index, which represents the degree of violation of political and civil rights in the origin countries, and proxies for human and social capital resources. Several interaction effects are statistically significant and presented [Table 4](#). [Supplementary Table SB1](#) illustrates the average marginal effects of predictor variables at different FIW levels.

In contrast to the results reported above, more years of education contributes to positive asylum outcomes (a direct positive effect, Model 1.1). However, this positive effect diminishes and reverts in sign for countries with lower levels of persecution and human rights violations. For instance, in countries such as Syria, each additional education year increases approval probability by 2 percentage points. For asylum-seekers from Afghanistan, for example, education has no significant effect, whereas for asylum-seekers from Albania, the effect is negative ([Table B1](#) in Appendix B). Similar patterns are observed for the decision rate. These results are consistent with *H5b*, which posits that decision-makers are likely to view cases of persecution of higher-educated asylum-seekers stemming from countries with a more pronounced level of violation of political and civil rights as more credible.

We further observe that the lower the violation of political and civil rights in the country of origin, the larger the positive effect of social capital on the asylum outcomes. First, a favourable effect of relatives' support on the approval probability appears only for countries with a relatively stable political and human rights

situation (e.g. Pakistan and Albania). Second, the positive effect of acquaintances' support and of larger networks on the decision rate emerges for asylum-seekers from countries with higher FIW indices (lower levels of political freedom and civil liberties). Thus, information spread through networks might be particularly helpful in cases where it is more difficult to prove the case of persecution or violation of human rights, conforming to *H5a*.

Finally, we test different interaction effects between variables approximating the social and human capital resources of asylum-seekers (results are not presented). Overall, neither interaction's effect turns out to be statistically significant with the exception of the interaction effect between socioeconomic status and network density at destination (presented in Model 1.2, [Table 4](#)), although the results are less clear cut. Conforming to the idea of the substitution effect between human and social capital (*H6a*), a larger network density is associated with a lower premium of a medium socioeconomic status (relative to low-socioeconomic status) on the approval probability. On the other hand, the relative premium of high-socioeconomic status does not vary by network size. Regarding the decision rate, we find that more socioeconomically advantaged asylum-seekers benefit to a greater extent from larger networks at the destination than their less socioeconomically advantaged peers, and these patterns are consistent with the notion that social and human capital revenues multiply (*H6b*).

Discussion

An extensive body of economic and sociological research indicates that differences in human and social capital not only drive migration decisions but also translate into different opportunities to integrate into destination countries' labour markets and societies (e.g. [Chiswick, 1999](#); [Palloni et al., 2001](#); [Edin et al., 2003](#); [Dustmann et al., 2016](#)). These differences might contribute substantially to the inequality among those who are initially advantaged or disadvantaged. Our study contributes to the previous literature by examining the impact of social selectivity on the outcome of decisions on asylum applications and the duration of asylum processes. We also contribute to a small but growing qualitative and quantitative literature on the role of socioeconomic and social capital resources in the context of various legal transitions such as applying for asylum or citizenship and sanctioning.

Using individual data from the IAB-BAMF-SOEP Refugee Survey, our analysis reveals that the overarching aim of the asylum process, i.e. granting asylum to

Table 4. Impact of asylum-seekers' social and human capital characteristics on the decision rate and on the probability of approval of the asylum application, effect heterogeneity (log odds)

Variables	Model 1.1		Model 1.2	
	Coef.	(SE)	Coef.	(SE)
Probability of application approval				
Years of education	0.11*	(0.05)	0.00	(0.04)
Medium (versus low) socioeconomic status	0.09	(0.08)	0.09	(0.08)
High (versus low) socioeconomic status	0.24*	(0.09)	0.24*	(0.10)
Work experience	-0.05	(0.08)	-0.05	(0.08)
Support from acquaintances and friends	0.21	(0.30)	0.43+	(0.22)
Support from relatives	-0.25*	(0.11)	-0.03	(0.09)
Months in German language courses	-0.03**	(0.01)	-0.03***	(0.01)
Language proficiency	0.02	(0.04)	0.01	(0.04)
Network density at destination	0.15*	(0.06)	0.16*	(0.08)
× Medium socioeconomic status			-0.11	(0.08)
× High-socioeconomic status			0.11	(0.09)
FIW	-0.01**	(0.01)	-0.01*	(0.00)
× Years of education	-0.01**	(0.00)		
× Support from acquaintances and friends	0.01	(0.01)		
× Support from relatives	0.01**	(0.00)		
× Network density at destination	-0.00	(0.00)		
Constant	2.25***	(0.65)	2.28***	(0.65)
Hazard rate of decision				
Years of education	0.04**	(0.01)	0.02	(0.01)
Medium socioeconomic status	0.04+	(0.02)	0.04+	(0.02)
High-socioeconomic status	0.05*	(0.02)	0.06*	(0.02)
Work experience	-0.01	(0.02)	-0.00	(0.02)
Support from acquaintances and friends	-0.02	(0.06)	0.05	(0.05)
Support from relatives	0.02	(0.03)	0.03	(0.02)
Months in German language courses	-0.00	(0.00)	0.00	(0.00)
Language proficiency	0.02+	(0.01)	0.02+	(0.01)
Network density at destination	0.01	(0.01)	0.00	(0.02)
× Medium socioeconomic status			0.05*	(0.03)
× High-socioeconomic status			0.03	(0.02)
FIW	-0.00	(0.00)	0.02	(0.02)
× Years of education	-0.00*	(0.00)		
× Support from acquaintances and friends	0.01*	(0.00)		
× Support from relatives	0.00	(0.00)		
× Network density at destination	0.00**	(0.00)		
Constant	-1.09***	(0.16)	-1.09***	(0.16)
Rho (u_r , u_y)	-0.29	(0.31)	-0.34	(0.34)
Controls	YES		YES	
N of person-month observations	66,118		66,118	
LL	-15,847		-15,860	
AIC	32,091		32,110	
BIC	33,902		33,885	
Degrees of freedom	97		95	

Notes: Significance level. The variables for years of education and network are standardized: the relevant coefficient corresponds to the effect of an increase by one standard deviation. Robust standard errors. SE, standard errors. For the full list of model covariates, refer to Variables section.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$ (two-tailed test).

Source: IAB-BAMF-SOEP Survey of Refugees in Germany, own calculations.

those who are in need of protection from violence and persecution, might be diluted by social and economic factors, affecting the outcomes and length of asylum processes. In particular, a higher-socioeconomic status, acquaintances' and friends' support, and larger (potential) networks at the destination seem to increase the chances of asylum applications being approved, whereas socioeconomic status and relatives' support contribute to a shorter asylum process. Moreover, the impact of human and social capital characteristics is not homogeneous and varies according to the situation in the origin country as follows: human capital seems to be more rewarding for those originating from countries affected by wars and violent conflicts, whereas social network support is particularly relevant for those originating from more secure origin countries. Furthermore, individuals with a higher-socioeconomic status benefit more from a larger network at the destination, implying that asylum-seekers with a higher social status not only have a higher probability of approval but also tend to be better positioned to efficiently capitalize on social networks during the asylum process.

Although the effects of each socioeconomic factor do not initially seem large in magnitude, in tandem, they might be relatively sizeable. In particular, given that the effects of human capital endowments and access to social networks may cumulate (e.g. Coleman, 1988; Boxman, De Graaf and Flap, 1991), asylum-seekers more advantaged in terms of socioeconomic status and social capital might experience approval rates for their asylum applications that exceed those of their less-advantaged counterparts by 14 percentage points. Thus, there is a non-negligible gap between the legal claim of providing shelter for all individuals in need on equal terms and a social stratification bias of approval chances in actual asylum procedures.

Altogether, human capital and social resources seem to affect the outcome and length of asylum procedures, which in turn may contribute to increasing inequality over the life cycle. In this regard, asylum processes—similarly to other claim-making processes (Fording et al., 2011; Hainmueller and Hangartner, 2013)—may operate as an engine for social (re-)production and promotion of social inequality due to socioeconomic and social capital resources. This should be taken into account in debates about modification of the asylum process and decision rules. More standardized asylum procedures and comprehensive training for decision-makers and interviewers may be a possible policy response to this problem. Our findings *inter alia* suggest that training and further education of decision-makers

of the BAMF should promote professionalization and sensitization in order to counteract the usually unconscious disadvantage of less-advantaged individuals in administrative practice (cf. Zahradnik et al., 2016). Accordingly, in the absence of adequate and standardized training for decision-makers, asylum processes run the risk of becoming abusive with regard to selection quality and are likely to further undermine the principal idea of the 1951 Refugee Convention and the asylum legislation in Europe to give protection to individuals exposed to violence and the violation of human rights, and, hence, to exacerbate inequality. In this sense, the German case is of general interest for understanding the forces that drive asylum procedures in developed countries because Germany has emerged as the predominant destination of asylum-seekers in the OECD since 2015. Given the growing rates of rechecks of asylum decisions in Germany (BAMF, 2018: p. 60) and in many other EU countries, the intense debates over asylum process and related policies are likely to escalate in the foreseeable future.

Three limitations of our study require further research. First, some caution should be warranted in interpreting the estimated impact of the human and social capital characteristics on asylum outcomes in strict causal terms since unobservable characteristics (such as ability) are likely to be partially captured by the observable social and human capital of the applicants. Although we control for many relevant individual confounders, observational data might not fully accommodate the resulting challenge in causal identification. Second, by focusing on a single country, i.e. Germany, we are unable to rule out the role of contextual factors that may shape the observed patterns in a particular direction. Thus, replication exercises from other countries would be important for a generalization of the results. Third, our data do not cover asylum-seekers whose asylum claims were rejected and who had to leave Germany immediately after the decision. From this perspective, our analyses might reveal only the tip of the iceberg: asylum-seekers with negative decisions are less likely to participate in the second wave of our survey, which might imply that we would obtain even larger effects of human capital endowments and social networks if we could adequately include these observations in our analysis.

Notes

- 1 Other historically significant destinations for asylum-seekers, such as the United States, Canada,

- and Australia, have received only a negligible number of applications during the same time period (BAMF, 2018: p. 30).
- 2 Asylum-seekers are allocated across the German Federal States (Länder) according to a key based on population size and tax revenues ('Koenigssteiner Schlüssel'); they are subsequently distributed by local authorities within Federal States' territory (based on a similar key).
 - 3 Political asylum and refugee status may be denied if domestic alternatives (e.g. moving to a different region) for escaping persecution exist in the home country.
 - 4 This often applies when asylum-seekers enter Germany via a 'safe third country' which includes all member states of the EU, Norway, and Switzerland.
 - 5 On 1 January 2018, 'safe countries of origin' were the Member States of the EU, Albania, Bosnia-Herzegovina, Ghana, Kosovo, Macedonia, Montenegro, Senegal, and Serbia.
 - 6 Asylum-seekers receiving a negative decision may be eligible for a temporary suspension of deportation (*Duldung*) or a time-limited residence permit if deportation impediments (e.g. dangers to life and limb due to circumstances in the target country, health hazards, or missing papers) exist that were not considered during the asylum process. For further details, refer to AsylG (2015) and BAMF (2016).
 - 7 This study uses the factually anonymous data of the IAB-BAMF-SOEP Survey of Refugees, wave 1–2. Data access was provided via a Scientific Use File supplied by the Research Data Centre (FDZ) of the German Federal Employment Agency (BA) at the Institute for Employment Research (IAB). DOI: 10.5684/soep.iab-bamf-soep-mig.2017. We are aware that previous versions of the dataset included some inappropriately conducted interviews and relied only on the data cleaned from any such interviews here (Kosyakova et al., 2019).
 - 8 Missing information on the application date was replaced with the registration date in Germany or with information provided by household members (such cases were controlled for in the regressions).
 - 9 Lange and Sommerfeld (2020) argued that the allocation of asylum-seekers in Germany can be considered quasi-random only since 2015 as before 2015, individual and community preferences could be acknowledged in the allocation process. The replication of our analyses with the sample of asylum-seekers arrived since 2015 did not alter our conclusions (see Supplementary Table SC1).
 - 10 We tested various specifications such as a binary indicator for high-socioeconomic status, categorical variable composed of more categories, and a more nuanced index composed via principal component analyses. The corresponding specifications highlighted the worse goodness of the model fit than a specification with the benchmark variable.
 - 11 In the additional analyses, we considered co-ethnic migrants. The results suggested no statistically significant effect on either the hazard rate of the decision or the probability of asylum application approval.
 - 12 Controlling for region fixed effect absorbs further potentially important links between politics—for instance, a share of right-party voters—and individual approval changes (Holzer et al., 2000; Riedel and Schneider, 2017). In principal, this issue whether political circumstances affect regional approval rates should be addressed in a separate study.
 - 13 Note that in discrete-time models, the dependent variable is the event itself (monthly status of asylum procedure) rather than the length. Another way to examine the rate (and type) of the decision given the existence of the censored data is to apply a competing risk approach that treats approval and rejection of the asylum application as two different destination states. However, the effects of covariates on the timing of the decision and the type of decision cannot be disentangled in this case.
 - 14 Restricting the sample to only the participants in the second wave reveals similar patterns.
 - 15 Our results are robust to the alternative sample and model specifications. For details, refer to Supplementary Appendix SC.

Supplementary Data

Supplementary data are available at ESR online.

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Appendix A

The empirical analysis consists in estimating a two-equation model: first, the estimation of the hazard rate $r(t)$ at which asylum-seeker i receives a decision on her or his application and, second, the estimation of the probability $\Pr(Y|D)$ that the asylum-seeker receives an approval of his or her asylum application conditional on the decision being made.

The model is specified as follows:

$$r(t) = \Pr(D|T \geq t) \\ = X_{ijklpqt}'\varphi + k_{1t}\psi_1 + k_{2t}\psi_2 + \varepsilon_{ijklpqt}, \quad (1)$$

$$\Pr(Y|D) = X_{ijklpqt}'\beta + \varepsilon_{ijklpqt}, \quad (2)$$

$$\text{corr}(\varepsilon_{ijklpqt}, \varepsilon_{ijklpqt}) = \rho_{ry}, \quad (3)$$

In equation (1), the hazard rate $r(t)$ of receiving a decision on the asylum application is estimated. It is specified as the logistic transformations of the probabilities of receiving a decision on the asylum application in month t conditional on not yet having received this decision. Here, we estimate a discrete-time event-history model, for which we used data on a monthly basis.

The covariate vector $X_{ijklpqt}$ represents individual-, origin country-, federal state-, and district-level variables that may vary over time and φ the corresponding vector of coefficients. More specifically, the vector $X_{ijklpqt}$ is given by

$$X_{ijklpqt} = Z_i'\gamma + Z_{jp}'\kappa + Z_{jt}'\varrho + Z_{kt}'\omega + \delta_j + \delta_l + \delta_q, \quad (4)$$

where the vector Z_i denotes the individual-level characteristics of the asylum applicants, the vector Z_{jp} the characteristics of the origin country in year y , the vector Z_{jt} the characteristics of the origin country in month t , and the vector Z_{kt} the characteristics of the destination country district in month t . δ_j , δ_l , and δ_q are fixed effects for the country (group) of origin j , the federal state l in the destination country, and the quarterly time-fixed effects q , respectively. The duration dependence of the asylum process is accounted for by including a second-order polynomial in the covariate vector $X_{ijklpqt}$.

For the identification restriction of the model, we include two variables in the selection equation: k_{1t} is a time-varying indicator for the origin country prioritized in the asylum procedure. This prioritized processing of specific countries is set by the BAMF and varies over

time (see [Supplementary Table SA1](#) in the Appendix SA). k_{2t} is a measure of the monthly ratio of the aggregated number of pending applications relative to the number of decided asylum applications. This variable reflects the ‘application workload’ (i.e. the pressure on authorities in handling asylum applications); it increases with the cumulative number of pending applications by the end of each month (numerator), which, in turn, likely extends the average asylum application processing time. The variable’s denominator considers the monthly number of decided asylum applications; this should serve as a proxy for the quadrupled number of BAMF staff between 2014 and 2017 ([Grote, 2018](#)) and hence potentially increased efficiency of the asylum applications processing. [Supplementary Figure SA1](#) in the Appendix depicts the development of the calculated ratio over the observation period. Fixed effects for the (last) interview date (aggregated into June–August 2016, September–December 2016, June–August 2017, September–December 2017, and January–March 2018) enter the selection equation as additional controls. For the analyses of the correlation between exclusion restrictions and dependent outcomes, refer to [Supplementary Tables SB1 and SB2](#) in the Appendix. Analyses in [Supplementary Table B3](#) replicate the benchmark model including only one of each exclusion restrictions.

In equation (2), the probability that an individual will receive approval of his or her asylum application conditional on whether the asylum decision has been completed, $\Pr(Y|D)$, is estimated. The vector $X_{ijklpqt}$ contains the same explanatory variables as in equation (1), whereas β denotes the corresponding vector of coefficients. The error terms $\varepsilon_{ijklpqt}$ and $\varepsilon_{ijklpqt}$ are assumed to be white noise with mean zero and finite variance.

We employ the full information maximum likelihood (FIML) estimator and estimate the hazard rate of the decision and the probability of asylum application approval in one model simultaneously. Accordingly, we allow that the residuals of both equations are correlated, i.e. $\rho_{ry} \neq 0$. We assume a bivariate normal distribution for the residuals of the two stages. For a robustness check, we replicated our analyses using a two-step procedure with a semi-parametric transformation that allows the normality assumption proposed by [Newey \(2009\)](#) to be relaxed.

Appendix B

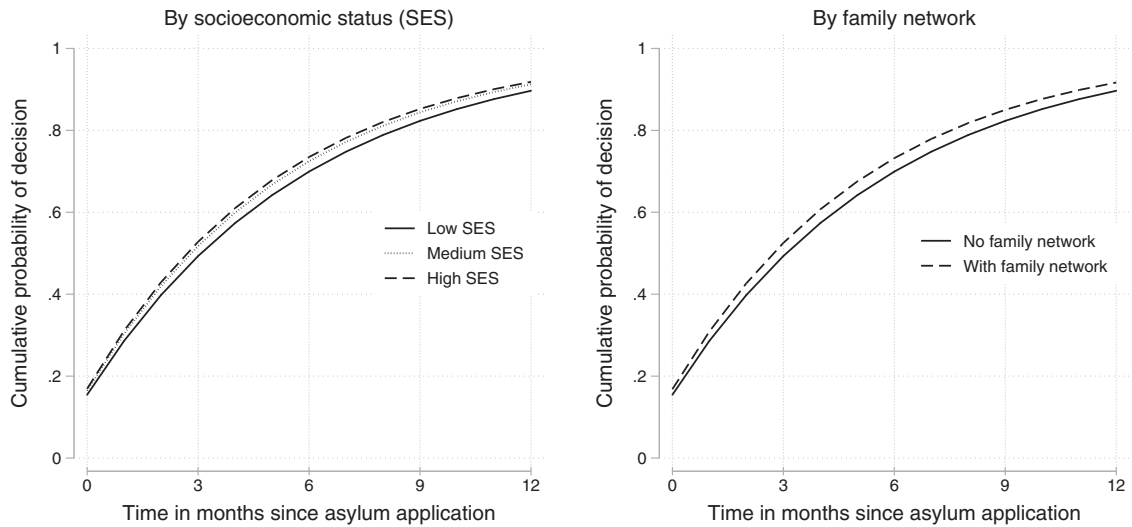


Figure B1. Cumulative probability of having received a decision on the asylum application by education and by family network

Notes: Estimated conditional probability of having received a decision on the asylum application from Model 1 in Table 3. To perform the simulation, we use the mean value of all covariates. Our assumption is that the effect of all regressors does not differ across education years in the first case or across availability of a family network in the second case.

Source: IAB-BAMF-SOEP Survey of Refugees in Germany, own calculations.

Table B1. Average marginal effects (AME) of asylum-seekers' social and human capital characteristics on the decision rate and the probability of approval of the asylum application from Models 1.1 and 1.2 in Table 4

Interaction	Probability of application approval		Hazard rate of decision	
	p.p.	(SE)	p.p.	(SE)
Model 1.1				
AME of years of education				
at FIW = -1 (e.g. Syria)	1.93*	(0.02)	0.46**	(0.00)
at FIW = 3 (e.g. Eritrea)	1.63*	(0.01)	0.40*	(0.00)
at FIW = 24 (e.g. Afghanistan, Iraq)	-0.41	(0.00)	0.07	(0.00)
at FIW = 42 (e.g. Pakistan)	-2.76+	(0.04)	-0.19	(0.00)
at FIW = 67 (e.g. Albania)	-6.77*	(0.18)	-0.52	(0.00)
AME of support from acquaintances and friends				
at FIW = -1 (e.g. Syria)	2.81	(0.12)	-0.28	(0.00)
at FIW = 3 (e.g. Eritrea)	3.51	(0.13)	-0.01	(0.00)
at FIW = 24 (e.g. Afghanistan, Iraq)	7.67**	(0.21)	1.41+	(0.01)
at FIW = 42 (e.g. Pakistan)	11.90**	(0.46)	2.69*	(0.03)
at FIW = 67 (e.g. Albania)	18.65*	(1.38)	4.59*	(0.10)
AME of support from relatives				
at FIW = -1 (e.g. Syria)	-4.43*	(0.09)	0.28	(0.00)
at FIW = 3 (e.g. Eritrea)	-3.55+	(0.07)	0.33	(0.00)
at FIW = 24 (e.g. Afghanistan, Iraq)	1.67	(0.03)	0.62+	(0.00)
at FIW = 42 (e.g. Pakistan)	6.98*	(0.20)	0.85	(0.00)
at FIW = 67 (e.g. Albania)	15.47**	(0.85)	1.14	(0.01)
AME of network density at destination				
at FIW = -1 (e.g. Syria)	2.35*	(0.02)	0.11	(0.00)
at FIW = 3 (e.g. Eritrea)	2.43**	(0.02)	0.17	(0.00)
at FIW = 24 (e.g. Afghanistan, Iraq)	2.82**	(0.03)	0.51**	(0.00)
at FIW = 42 (e.g. Pakistan)	3.12*	(0.05)	0.77**	(0.00)
at FIW = 67 (e.g. Albania)	3.43	(0.10)	1.11**	(0.00)
Model 1.2				
AME of medium socioeconomic status				
at network density at destination = -1	3.96+	(0.09)	0.05	(0.00)
at network density at destination = -0.5	2.90+	(0.05)	0.24	(0.00)
at network density at destination = 0	1.89	(0.03)	0.45+	(0.00)
at network density at destination = 0.5	0.94	(0.01)	0.66*	(0.00)
at network density at destination = 1	0.04	(0.00)	0.88*	(0.00)
AME of high-socioeconomic status				
at network density at destination = -1	2.80	(0.07)	0.46	(0.00)
at network density at destination = -0.5	3.74*	(0.07)	0.56+	(0.00)
at network density at destination = 0	4.54**	(0.07)	0.66*	(0.00)
at network density at destination = 0.5	5.21**	(0.09)	0.76*	(0.00)
at network density at destination = 1	5.75**	(0.12)	0.87*	(0.00)
AME of network density at destination				
at low-socioeconomic status	3.05*	(0.04)	0.04	(0.00)
at medium-socioeconomic status	1.08	(0.01)	0.46*	(0.00)
at high-socioeconomic status	4.56**	(0.06)	0.24	(0.00)

Notes: Significance level. The variables for years of education and network are standardized: the relevant coefficient corresponds to the effect of an increase by one standard deviation. Robust standard errors. SE, standard errors. p.p., percentage points. For the full list of model covariates, refer to Variables section. For the probability of application approval, the average marginal effect is expressed as an average marginal effect conditional on selection. For the hazard equation, the average marginal effect is expressed as an average marginal effect for selection.

** $p < 0.001$, * $p < 0.01$, $p < 0.05$, + $p < 0.10$ (two-tailed test).

Source: IAB-BAMF-SOEP Survey of Refugees in Germany, own calculations.