



# Forced Displacement in History: Some Recent Research

*Sascha O. Becker*

February 2022

# Forced Displacement in History:<sup>\*</sup>

## Some Recent Research

Forthcoming in the *Australian Economic History Review*

Sascha O. Becker<sup>‡</sup>

Monash University and University of Warwick

### Abstract

Forced displacement as a consequence of wars, civil conflicts, or natural disasters does not only have contemporaneous consequences but also long-run repercussions. This eclectic overview summarizes some recent research on forced displacement in economic history. While many of the episodes covered refer to Europe, this survey points to literature across all continents. It highlights new developments, and points to gaps in the literature.

Keywords: Forced Displacement, Wars, Disasters, Networks

JEL classification: F22, R23, D74, Q54, N30

January 16, 2022

---

<sup>\*</sup>This paper is based on material presented by Becker in the Noel Butlin Lecture at *The Asia Pacific Economic and Business History Conference 2021*, on 11 February 2021. The lecture was sponsored by the *The Economic History Society of Australia and New Zealand*. Participants at this event made insightful comments. I thank the Editor (Kris Inwood), three referees, as well as Miriam Artiles, Andreas Ferrara, Boyd Hunter and Felipe Valencia Caicedo for constructive feedback. The paper builds on, but is substantially different from Becker and Ferrara (2019): its focus is on historic episodes of migration, and it incorporates a lot of new work in a quickly evolving literature, especially on the role of networks in the escape from persecution. Becker thanks Volker Lindenthal, Sharun Mukand and Fabian Waldinger for the enjoyable work on our joint paper (Becker et al., 2021) that inspired this survey.

<sup>‡</sup> Becker is also affiliated with CAGE, CEH@ANU, CEPR, CESifo, CReAM, ifo, IZA, ROA, and SoDaLabs. Email: sascha.becker@monash.edu.

## I. Introduction

Forced displacement (or forced migration) has seen a surge in interest in recent years. Several surveys have highlighted consequences of forced migration (see Becker and Ferrara, 2019; and Verme and Schuettler, 2021, for the two most recent surveys), but the emphasis has been on more recent episodes of forced displacement, if not even unfolding events, such as the ongoing Syrian refugee crisis or the persecution of the Rohingya in Myanmar.<sup>1</sup>

Yet, there has also been a surge of interest in historical episodes of forced displacement.<sup>2</sup> There are likely several reasons: *first*, the digital turn in economic history (see Abramitzky, 2015 and Mitchener, 2015) has made large-scale historic data sets accessible to economic historians. *Second*, economic history has increasingly been “integrated” into economics (see Margo, 2018). *Third*, some historic episodes of forced displacement (e.g. during and after WWII) happened at even more massive scale than more recent episodes, i.e. there is a genuine interest in understanding the features of those episodes in their own right, and to compare them with more recent events. *Fourth*, historic episodes of forced displacement offer natural experiments to economists who are keen on “identification”. *Fifth*, historic episodes of forced migration lend themselves more naturally to the study of long-run consequences, whereas it is too early to assess the long-run consequences of more recent events.

This paper will summarize some of the fascinating work on forced displacement in history that has been published over the last decade or so. This is not a survey in the classical sense. It does not aim to comprehensively cover “all” of the research on forced displacement. Instead, it presents the results of an eclectic mix of papers, highlighting new methodological approaches, new types of data sources, and conceptual advances in growing sub-fields. There is a partial overlap with the survey of Becker and Ferrara (2019) in the sense that some papers discussed there are also discussed here. But the focus here is firmly on *historic episodes* of forced migration, and the set of papers covered here goes well beyond that in Becker and Ferrara (2019), as the literature has expanded so quickly over the past years.

I also do not attempt to examine equally all historic episodes of forced migration, for various reasons: first, this survey already goes well beyond my Butlin lecture which largely focused on European episodes. It is not intended to be a Handbook chapter but an extended

---

<sup>1</sup> In line with the salience of forced displacement in current-day world policy, the World Bank and the UNHCR founded the Joint Data Centre on Forced Displacement (JDC) which “aims to enhance the ability of stakeholders to make timely and evidence-informed decisions that can improve the lives of affected people”.

<sup>2</sup> Interestingly, the inaugural edition of the JDC’s Quarterly Digest on Forced Displacement focused on long-term consequences of forced displacement (see Becker, 2020). Quite naturally a focus on long-term effects means that the episodes covered are from several decades, if not centuries ago.

write-up of the lecture. Second, some historic displacement experiences have not yet been examined much from an economic or economic history perspective. Third, some literatures, such as those on the slave trade and on indigenous peoples in the Americas and Australasia, merit their own dedicated treatments. Nevertheless, I hope that a broad, although unbalanced survey, can be valuable precisely because it draws attention to the importance of the topic of forced displacement in history, and encourages more work on regions, topics, and experiences that have not yet been well-covered.

### **A brief taxonomy of forced displacement**

Becker and Ferrara (2019) describe a taxonomy of forced displacement that is useful to inform the further discussion below. Episodes of forced displacement display substantial variation in **scale**: conflicts – or, analogously, natural disasters – can affect small groups, in the case of selective expulsions along ethnic, racial or religious lines, or can take the form of mass expulsions of millions of individuals. Episodes may also differ in their **mortality**, to the extent that forced displacement often happens in the context of civil or international wars.<sup>3</sup> The **temporal nature** of episodes of forced displacement may also vary: forced displacement can be temporary, such as when refugees find transitory shelter in a safe country while waiting to return to their home countries, or it can be permanent, as in the case of forced population movements after WWII when European borders were redrawn. Neither the scale nor the temporal nature of forced migration episodes is necessarily distinct from voluntary migration episodes. But Becker and Ferrara (2019) argue that forced migration can have distinct consequences for the migrants *themselves* because of the forceful nature of the displacement experience as well the loss of possessions and homes against their own will. While voluntary migration is likely to follow economic cost-benefit considerations of the migrants, involuntary migration is the result of forces that are largely outside the control of the migrants.<sup>4</sup> As recent research has shown (e.g. Becker, Grosfeld, Grosjean, Voigtländer, Zhuravskaya, 2020), forced migration can lead to lasting behavioural changes because it is often a more life-changing experience than voluntary migration.

---

<sup>3</sup> I thank a referee for highlighting this dimension which is likely to influence the psychological impacts, persistence, and bargaining power of the parties involved in a conflict.

<sup>4</sup> Some of the terms in the literature associated with forced migration are as follows: refugees, displacement/displaced, expulsion/expellees, exiles. Voluntary migrants are often called economic migrants.

Of course, the distinction between voluntary and forced migration is not a binary one.<sup>5</sup> There are intermediate cases where there is a strong force pushing towards migration, but it is not forced in the sense of being inescapable. Ferrara and Fishback (2020) document the self-harm inflicted on US counties that “discriminated away” their German population as a result of anti-German sentiment during WWI. US counties from which Germans felt forced to move away, had significantly lower manufacturing wages afterwards. Dust Bowl migrants in the US were “refugees from environmental collapse and economic upheaval” (Hornbeck, 2020). While some people moved, others did not. One factor may have been the degree of risk aversion. Another example of an intermediate case, which we will discuss in more detail below, is that of Jewish emigration in the early years of the Nazi regime, when emigration was (still) an exit option until the Nazis started the systematic deportation of Jews into Eastern European concentration camps (Becker, Mukand and Yotzov, 2021). Clearly, *not* moving came with a high risk of continued repression, threats or even death.

It is useful to consider further differences in the type of forced migration. For instance, it makes a difference whether displaced individuals face persecution because of group-specific attributes (religion, ethnicity, etc.), or whether they flee natural disasters that do not target specific individuals. Consequences of forced displacement may also differ depending on whether affected individuals are internally displaced (within their home country) or forced to move across international borders.

### **Novel features of the recent literature on forced migration in history**

The novel features of recent research are manifold. First, **the data**: a lot of the recent research on forced migration draws on large-scale data sets, as opposed to aggregate statistics. In some cases, those are individual-level data (e.g. Buggle, Mayer, Sakalli and Thoenig, 2020; Becker, Lindenthal, Mukand and Waldinger, 2021). Other papers work with both county-level and individual-level census data to study the effect of forced migration at both the individual and aggregate level (e.g. Ferrara and Fishback, 2020). Another novelty is the use of large-scale *surveys* to study the long-run consequences of forced migration on subsequent generations via questions that explicitly trace the ancestral locations of residence of the survey respondents (e.g. Becker, Grosfeld, Grosjean, Voigtländer and Zhuravskaya, 2020). Novel data is also often the result of addressing a multitude of challenges in data merging, particularly across pre- and

---

<sup>5</sup> Even Adam Smith considered poverty and unemployment as push factors for migration (see Rauhut, 2010). While this is typically considered as “economic” migration, it is arguably an intermediate case between fully voluntary and forced migration.

post-displacement variables: observational units may shift drastically and messily across time. Furthermore, data sources can be an arduous combination of datasets by different governments or non-governmental agencies.

Second, **the research production function**: research on forced migration in history is now often performed in large teams of researchers because the sheer scale of the research effort requires a diverse set of skills, and sufficient (wo)manpower.

Third, benefiting from larger data sets, **causal identification** has moved centre stage – part of the so-called “credibility revolution” in economics (see Angrist and Pischke, 2010) –, without dismissing the power of descriptive statistics and historic narratives that are trademarks of good research in economic history. Different from voluntary migration, the more displacement is at the forced end of the spectrum, the easier it is to argue displacement is “exogenous”, reducing identification concerns. Still, methods to identify causal effects vary from study to study.<sup>6</sup>

Fourth, **the long-term consequences** of forced displacement permit a unique perspective not only on how forced migration happened but also on the legacy of forced displacement on populations at destination and origin, and on the migrants and their descendants themselves. Some researchers combine historic data with modern-day census data. Others bring tailored modern-day surveys to the mix, tracing family histories via detailed interviews, and use the locations of ancestors to merge historic information on these locations.

Fifth, there has been an increased interest in **network theories** to help understand how those forcefully displaced decide whether to migrate or not, when and where to migrate, and who influences their decisions (e.g. Buggle et al., 2020, and Becker et al., 2021).

Finally, the body of research analysing **non-European episodes of forced displacement** is also rapidly growing, opening up the chance to learn from a broader set of experiences across a large variety of contexts.

## II. Consequences of Forced Migration for Migrants Themselves

The group first and foremost affected by *forced* migration are the migrants themselves. The literature on *voluntary* migration has a long tradition of studying assimilation of migrants,

---

<sup>6</sup> Examples of such methods include instrumental variables estimation; difference-in-differences, where identification comes from parallel pre-trends in the outcomes between units that did or did not experience the inflow of refugees; or generalized difference-in-differences where there is variation in the intensity of the inflow. Some authors have used spatial regression-discontinuity designs exploiting location patterns of forced migrants either at destination (e.g. Schumann, 2014) or at source (e.g. Becker et al. 2020; Testa, 2021).

in both the first and subsequent generations (e.g. Algan, Dustmann, Glitz, Manning, 2010; Abramitzky and Boustan, 2017). International migrants may need to invest in language skills and other country-specific human capital. Institutional differences in childcare may affect fertility choices. Assimilation can be multi-dimensional, in terms of socio-economic and political outcomes, but migration may also affect cultural choices such as name choice and acquired tastes (see e.g. Bisin and Verdier, 2000; Abramitzky, Boustan, and Eriksson, 2020). Many of these dimensions are shared between voluntary and forced migrants.

What sets forced migration apart is its involuntary nature. This comes with at least four distinguishing features (see Becker and Ferrara, 2019) that may affect the consequences of forced migration for migrants themselves. First, forced migrants experiencing civil wars, expulsions, or natural disasters may bear lasting effects due to the physical or psychological trauma not experienced by voluntary migrants. Second, forced migrants may lose assets as a result of destruction, expropriation, or because of a hasty departure. Third, they may end up in a suboptimal location as they did not choose to migrate in the first place, and as a result may have limited control over where they go.<sup>7</sup> Fourth, their political and economic status at destination may be uncertain and their expected time of abode may differ from that of voluntary migrants.<sup>8</sup> In some circumstances, forced migrants may expect that there is a low probability of return to their home regions (e.g. expulsions after WWII), in others there might be a realistic expectation to return home (e.g. after floods). In both cases, the uncertainty surrounding the time of abode is probably larger than for voluntary migrants.<sup>9</sup>

Recent research in economic history has drawn on historical censuses as well as on – sometimes newly collected -- surveys soliciting information about ancestors, which allows us to trace outcomes over longer horizons. This recent research thus permits us to learn not only of the short-term challenges faced by forced migrants, but also how their children, grandchildren and great-grandchildren have fared.

## Labour market integration

---

<sup>7</sup> There is also the opposite possibility: in “normal times” (i.e. when there is no humanitarian case), some countries may not admit economic migrants from certain countries of origin but may well admit refugees from those same countries when they come as refugees.

<sup>8</sup> One group of voluntary migrants that also might perceive heightened uncertainty are illegal immigrants.

<sup>9</sup> As discussed in the introduction, the distinction between voluntary and forced migration is not a binary one, as even forced migrants may have partial control over the timing of departure or their destination. To the extent that there are emigration restrictions or immigration restrictions, or both, selection of refugees may be relevant to the same extent as in the case of voluntary migration (see Borjas, 1987). See Section V for more detail.

Many papers interested in the economic integration of forced migrants study expulsions in the wake of WWII, when European borders were redrawn. More than 8 million ethnic Germans were expelled from Eastern Europe,<sup>10</sup> from territories of the German Empire, and neighbouring countries where Germans had often resided for centuries. Since most of them were expelled from Germany's former Eastern territories, they moved from one part of (former) Germany to another part of Germany.

Falck et al. (2012) focus on the 'Federal Expellee Law' (*Bundesvertriebenengesetz*), which aimed at restoring the pre-war occupational status of forced migrants. They find no evidence for a positive effect of the policy on the labour market outcomes of migrants, likely because the general economic boom in West Germany after WWII improved economic conditions for locals and expellees alike. Bauer et al. (2013) analyse the economic integration of first-generation migrants and their offspring more broadly, looking at a larger set of outcomes. A quarter century after the end of WWII, first generation migrants still tend to fare worse economically, except for displaced agricultural workers. The latter exhibit higher incomes than comparable locals. The reason is that displacement caused large-scale transitions out of low-paid agriculture. The authors also show a lack of convergence even after several decades, because the differences in economic outcomes between refugees and locals still shows up for second-generation migrants. This is evidence that the economic consequences of displacement and the ensuing adjustment processes are long lasting even in this context where refugees and locals speak the same language which should facilitate labour integration compared to cases of refugees crossing international and language borders.

Forced migration in the context of WWII also affected other countries. Sarvimäki et al. (2020) study the forced migration of 11% of the Finnish population after the Soviet invasion in 1939. Farmers were resettled to areas resembling the origin regions and given land and assistance to continue farming. Nevertheless, many left agriculture and, on average, displaced farmers ended up earning substantially more than comparable non-displaced farmers, suggesting substantial returns to leaving farming. The fact that many only left farming once compelled to re-assess their choices in the wake of expulsion suggests that habit formation kept many families in agriculture before forced migration.

What qualifies as economic history is a matter of debate, but one arbitrary definition is that economic history is whatever happened before one was born. In the author's case, the work

---

<sup>10</sup> Some studies report 12 million expelled Germans, which includes the 4.1 million refugees who settled in the eastern part of post-WWII Germany, i.e. the later GDR.

by Nakamura et al. (2021) meets this criterion. They exploit the outbreak of a volcano on the Westman Islands in Iceland in January 1973, 5 months before the author of this paper was born. They show that individuals whose houses were destroyed moved away permanently. Those aged 25 and older (“parents”) lost out slightly in terms of lifetime earnings. But those younger than 25 years of age at the time of the volcano eruption experienced marked gains in lifetime earnings and education despite the relative economic wealth of their origin location. The authors call this “the gift of moving” and interpret their findings in a way that is related to Sarvimäki et al. (2020): some people are “stuck” in locations that do not fully exploit their economic potential. Young people have a sufficiently long-time horizon to be able to benefit from the opportunities available away from a suboptimal location of origin. The work by Nakamura et al. (2021) also points to another group of events that can trigger forced displacement: natural disasters.

Returning to expulsions, also Poles living in the Eastern territories (*Kresy*) of Poland were forced to migrate as a result of redrawn borders after WWII. The Polish borders moved several hundred kilometres west: Poland lost its Eastern territories to the Sovier Union, but gained formerly German areas east of the Oder-Neisse line. Poles from *Kresy* were resettled to Central Poland as well as to the newly acquired Western Territories, the formerly German areas. What makes the Polish context unique, compared to the German context, is that the Western Territories of post-WWII Poland were less congested, with ca. 8 million Germans leaving, and substantially fewer migrating Poles replacing them. So, while German expellees in Western Germany faced a degree of congestion, in Poland’s Western Territories, land and other assets were abundant. While Becker et al. (2020) focus on educational outcomes (to be discussed later), they also show that – as a result of an increase in educational attainment – Polish expellees have higher earnings than their Polish compatriots, who are either stayers or voluntary movers from parts of Poland that were not subject to expulsions. The earnings results draw on data of second- and third generation migrants measured in 2015, i.e. very long-run outcomes.

Together, these recent results on forced migration in the context of WWII suggest that there is no uniform cost or benefit of expulsion across countries, but that medium- to long-run effects depend on the country-specific context. While West Germany, with its high population density, was quite congested, making it harder for expellees to compete with locals, in the Finnish and Polish context, (many) expellees did well compared to their compatriots.

Going beyond the WWII context, Boberg-Fazlic and Sharp (2020) use the universe of Danish naturalizations between 1851 and 1960 to study the “refugee gap” in the economic

status of refugees relative to other migrants. Specifically, they ask whether refugees are more or less likely to be in a skilled occupation given their individual characteristics. They find that refugees fared no worse than other migrants, conditional on other characteristics, among those who attained citizenship. They conclude that refugees must be provided with the same rights as other migrants if policy aims to ensure their economic success.

## **Education**

Becker et al. (2020), in the context of forced displacement of Poles from Kresy, show that while there were no pre-WWII differences in education, Poles with a family history of forced migration are significantly more educated today. Descendants of forced migrants have on average one extra year of schooling, driven by a higher propensity to finish secondary or higher education. As Kresy migrants were of the same ethnicity and religion as other Poles, confounding factors of other cases of forced migration can be ruled out as explanations. Labour market competition with locals and selection of migrants are also unlikely to drive their results. Survey evidence suggests that forced migration led to a shift in preferences, away from material possessions and towards investment in a mobile asset – human capital. The effects persist over three generations.

Several of the papers mentioned already show results for education as one of several outcomes. For instance, Nakamura et al. (2021) show that young people leaving the Westman Islands as a result of the volcano eruption have higher educational attainment than young people whose houses were unaffected by the volcano eruption. The explanation for this result is that most young people on the Westman Islands work in the fishing and fish processing industries that alone account for roughly 70% of income in the Westman Islands (compared to 15% in the rest of Iceland). Children with comparative skill advantages in jobs requiring a large amount of education such as law, computer science, engineering, or medicine, benefit from the forced move to mainland Iceland. As mentioned earlier, Bauer et al. (2013) show that 1<sup>st</sup> and 2<sup>nd</sup> generation German refugees expelled from Eastern Europe and re-settled in Western Germany fare worse across a variety of economic outcomes, except those displaced from agriculture who move into new sectors that require them to acquire the associated educational degrees. Toews and Vézina (2021), in their study on “enemies of the people” in the Soviet Union, find that descendants of “enemies” are more likely to be college educated today.

Black et al. (2022) study how refugee-specific government aid affects the medium-term outcomes of refugees who migrate as children and young adults. Their focus is German Democratic Republic (GDR) refugees who escaped to West Germany between 1946 and 1961

who were eligible for refugee-targeted aid after moving, if they were recognized as “political refugees”. They find positive effects of aid-eligibility on educational attainment, job quality and income among the refugees who migrated as young adults (aged 15-24). They do not find similar effects of aid-eligibility for refugees who migrated as children (aged 1-14). The overall results suggest that factors coming from the refugee experience *per se* do not impact negatively on the later-in-life socio-economic success of refugees. These results seem to be well in line with those of Becker et al. (2020) in that refugees moving between two parts of the (formerly) same country do no worse, if not even better than their co-nationals who are not migrating under perceived threats.

### **Health and well-being**

Given the severity of forced displacement, a traumatic experience, some studies have taken a look at long-run health outcomes. Bauer et al. (2019) show that post-WWII German expellees have a 12-21% (men) and 3-9% (women) higher mortality risk after the age of 68. Only individuals with significantly higher lifetime earnings (top quintile of the lifetime earnings distribution) overcome this effect.

Haukka, Suvisaari, Sarvimäki, and Martikainen (2017), looking at the case of expulsion of Finns by the Soviets in 1940, find that forced migration was associated with increased risk of death due to (ischemic) heart diseases. In contrast, they observe lower suicide mortality among forced migrants 25 or more years after expulsion.<sup>11</sup>

### **Removal of indigenous populations<sup>12</sup>**

This section so far focused on European episodes. Naturally, there is work beyond Europe. A literature that is growing rapidly looks at the removal of indigenous populations around the world into reservations or similar types of segregated communities by colonizers.<sup>13</sup><sup>14</sup> This form of forced displacement often went hand-in-hand with discrimination and with a forced

---

<sup>11</sup> In earlier, related, work, Saarela and Finnas (2009) detected increased mortality risk of displaced Finns during the late 1980s, during Gorbachev’s Perestroika period, that resulted in an intense debate in civil society about restitution of the ceded areas. They explain those results with psychosocial stress arising from renewed hope of returning home several decades after the expulsion.

<sup>12</sup> This literature, added on the recommendation by one generous referee, was not covered in the Butlin lecture 2021, but is briefly mentioned here as a pointer. It would deserve a whole survey of its own.

<sup>13</sup> In personal communication (3 Aug 2021), Boyd Hunter so aptly wrote: “the history of colonisation is the history of displacement”.

<sup>14</sup> To the extent that colonizers showed very little if any respect for indigenous populations, some work in this area is published in the Journal of Genocide Research (e.g. Wolfe (2006)).

imposition of governance structures or institutional arrangements that were a bad fit for the historical norms and institutions of the affected people (see Dippel, 2014, and the related literature cited therein).

For instance, in Latin America, the Spanish colonizers instituted a vast array of policies ranging from forced resettlements via so-called *reducciones* aimed at “reducing” and “congregating” indigenous people geographically, to control (Artiles, 2020) and instruct them (Valencia Caicedo, 2019), to forced labour systems such as the *encomiendas* (Faguet, Sánchez and Matajira, 2017) and the mining *mita* (Dell, 2010).

In North America, native American reservations had dramatic effects on indigenous populations (see e.g. Gregg and Wishart (2012), Dippel (2014), and Carlos, Feir, and Redish, 2021). “Colonial” policies of forceful removals of indigenous people continued well into the 20<sup>th</sup> century.

Canada, the United States, Australia and New Zealand had policies to forcefully remove indigenous children from their families to boarding or residential schools. For instance, Feir (2016) analyses the long-term effects of this forcible assimilation policy in the Canadian context. She finds that residential schooling achieved its objectives of economic and cultural assimilation. Yet, while residential schooling resulted in increased economic connection, it came at the expense of cultural connection to the children’s own communities. She also presents suggestive evidence that attending a boarding school during a decade when there was a high level of abuse eliminates any economic integration that is generally associated with attendance at a residential school. Jones (2021) shows that Indian residential schools in Canada are associated with *lower* educational attainment among *subsequent* generations. Gregg (2018) studies a similar policy in the US context. Reservations that sent a larger share of students to off-reservation boarding schools have higher high school graduation rates, higher per capita income, lower poverty rates, a greater proportion of exclusively English speakers, and smaller family sizes.

The apartheid regime in South Africa engineered one of the largest forced displacement episodes in history when 3.5 million people were forcefully relocated to rural homelands between 1960 and 1980. Abel (2019) explores the long-term effects of the removals on current measures of social capital, and finds that those living close to former resettlement camps have *higher* levels of trust towards members of their social network, people in general, and members of other ethnic groups. This result suggests that the joint experience of suffering under the apartheid regime created permanent bonds between those displaced, which also may have been a contributing factor in the ultimate downfall of the regime.

Again, a dedicated survey of the fast-growing literature on removal of indigenous populations would be extremely valuable. It could consider what drives heterogeneity in outcomes, for example by contrasting the works regarding process of forced displacement onto reservations in Canada and the United States, or South Africa, or by comparing differences and commonalities in research that studies the effects of removal of children to residential boarding schools in Canada, the US, Australia and New Zealand.

Clearly, while there are commonalities in the forced displacement of populations in Europe and the removal of indigenous populations, there are also stark differences. Removal into reservations is more than just forced displacement. It also constitutes a “continued treatment” of living in an environment where rights of indigenous peoples differ from the rest of the country. In contrast, many of the victims of population exchanges in the wake of WWII were able to re-start their lives at destination after their experience of forced migration without further discrimination at destination. Contrasting these differences in experiences and the resulting outcomes is a fascinating avenue for future research. One contributing factor is likely the relative power of the displaced peoples (e.g. Spirling, 2011) and the necessity of assimilation.

### **III. Consequences of Forced Migration for Receiving Populations**

There has been a true explosion of papers analysing forced migrations in historic contexts.<sup>15</sup> This section discusses papers that study the effect on populations receiving forced migrants. This work is concerned with the challenges posed by often massive flows of incoming migrants over a short period of time. From an identification point of view, being forced migrants, it is easier to take the flows *per se* as given. In terms of selectivity, in most of the cases of mass displacement resulting from (the aftermath of) WWII discussed below, there is little (if any) choice for targeted populations at origin: the spirit of the time was to separate peoples along national lines and a drive towards more ethnic homogeneity. As a result forced displacement was often wholesale. Some historic settings have the additional (econometric) appeal of presenting natural experiments that can be exploited to generate exogenous variation in the *destination* location of forced migrants.

---

<sup>15</sup> Most of the studies of historic episodes of forced migration in this section look (primarily) at contemporary outcomes. Relatively few (also) look at long-run outcomes.

## **Employment, agglomeration and economic structure**

After World War II, 8 million German refugees from Germany's former eastern territories had to move west. Endogeneity of location choice is reduced by the fact that the occupation forces of post-war Germany restricted it. Braun and Mahmoud (2014) estimate the displacement effects of incoming German refugees on West German workers. Regression results show a substantial reduction in the employment of locals. However, the authors also point out that this is driven by strong non-linearities and specific occupations in regions with very high inflow rates. In a later paper, Braun and Dwenger (2020) find that more industrialized counties and those with lower refugee inflows were more successful at integrating refugees. The size of the local labour market, and the capacity to accommodate refugees, determined the labour market consequences of such inflows. Schumann (2014) also takes an economic geography perspective on expellee inflows into West Germany after WWII. His work starts from the observation that expellees were resettled only into the British and American occupation zones, but not in the French-occupied zone. Using a spatial regression discontinuity framework, he estimates the persistence of the population shock over a 20-year-period. The difference in population levels originating from differential location patterns is highly persistent, suggesting that population patterns in the post-WWII decades in West Germany were not (only) determined by locational fundamentals: one would have expected more mobility over the medium term, away from the originally assigned locations, if fundamentals played a larger role.

Testing the mechanisms and channels through which employment and wage effects on locals operate is often restricted by data availability. One study that can say more about mechanisms is that by Murard and Sakalli (2019). They exploit the resettlement of 1.2 million Greeks from Turkey to Greece after the Greco-Turkish War 1919-22 and find positive effects of the inflow of forced migrants on long-run economic outcomes. Municipalities with a higher refugee inflow in 1923 have higher levels of earnings, household wealth, and education in 1991. They also have larger financial and manufacturing sectors. The potential channels behind these positive effects are new agricultural know-how and the transfer of technological knowledge in textile, which fostered growth through higher diversity in complementary skill.

Such agglomeration economies are also found by Braun and Kvasnicka (2014) who show evidence that the influx of expellees from Germany's former East accelerated the speed of transition away from low-productivity agriculture. Peters (2019) exploits the same influx of 8 million ethnic Germans and their assignment to rural, low population density localities where housing was relatively abundant. Economic theories predict a positive relationship between

population size and local productivity. Peters (2019) shows that the initial allocation of refugees was very persistent. Larger refugee numbers are associated with stronger manufacturing employment growth in the 1950s and 60s, and raised local productivity, but not immediately. The takeaway is that even massive population flows, which pose a challenge to accommodate in the *short run*, e.g. in terms of housing and infrastructure, can have positive economic effects, and that those may only materialize in the *long run*.

Another example of agglomeration effects of massive refugee inflows is the Soviet occupation of South-East Finland during World War II which forced a substantial share of the Finnish population into other parts of the country. Sarvimäki (2011) shows that municipalities receiving larger migrant inflows experienced subsequently higher population growth and developed faster in terms of wages and industrial development. This paper shows that agglomeration economies matter even when the initial stock of population is relatively low before the inflow of new workers.

While the papers discussed so far focused on forced displacement triggered by international conflict, Toews and Vézina (2021) look at forced displacement for internal political reasons, in the Soviet Union. From 1929 until Stalin's death in 1953, millions of political prisoners ("enemies of the people") were forcefully resettled to labor camps across the Soviet Union (Gulag system), alongside millions of non-political prisoners. Enemies of the people comprised intellectuals, artists, engineers, politicians, businessmen, professors, landowners, scientists, and affluent peasants. The authors show that areas around camps with a larger share of "enemies" among camp prisoners are more prosperous today, as measured by wages and firm profits, as well as night lights per capita.

### **Productivity and literacy**

Economic historians have recently studied long-lasting effects of highly-skilled refugees on the productivity of host economies. One prominent case is the expulsion of ca. 43,000 Huguenots from France in 1685, of whom almost half settled in Brandenburg-Prussia. Hornung (2014) shows, using Prussian firm-level data from 1802, that Huguenot refugees raised the productivity of textile manufactories, more than hundred years after their arrival. These skilled workers not only brought knowledge or technology with them. They partially offset the population lost due to war, plague, and famine during the Thirty Years' War.

Another prominent case is that of expelled Jewish scientists from Nazi Germany who advanced innovation and patenting in the U.S. (Moser, Voena, Waldinger, 2014). The expulsion and persecution of scientists in Nazi-Germany led to emigration of these high-skilled

workers to the U.S. Using inventor-level data, the authors show that these forced migrants spurred inventions and patents in chemistry. They did so by attracting scientists to their field rather than by increasing productivity of incumbent inventors.<sup>16</sup>

A third prominent case is the Partition of India in 1947 which triggered massive population exchanges between India and Pakistan. Focusing on the agricultural sector, Bharadwaj and Mirza (2019) demonstrate that areas in India that received more refugees have (1) higher average yields, (2) are more likely to take up high-yielding varieties of seeds, and (3) are more likely to use agricultural technologies. These effects are not explained by selective movement into districts with a higher potential for agricultural development. Instead, refugee literacy and land reforms in areas with refugees are two of the many potential mechanisms that could be driving these effects. Quite realistically, the increase in yields and use of agricultural technology coincide with the timing of the Green Revolution in India.

All of these papers – across three different continents and several different centuries – share one commonality: expelled minorities often bring with them important skills that can benefit the receiving populations in terms of productivity and innovation. Note that in this set of papers, effects are driven by the fact that those forced to migrate are more literate and/or equipped with *specific* skills and as a result, quite naturally, there is a positive effect in the receiving area.

### **Political Outcomes**

Attitudes towards refugees and other forced migrants can be volatile depending on public opinion. A factor that influences the latter is how well refugees fit into their host society on multiple dimensions. Even for more homogeneous migrant-host relations, such as the case of Germans from the eastern territories after World War II, differences in religious affiliation (Catholics in Protestant areas and vice versa) reduced intermarriage and increased local support for anti-expellee parties (Braun and Dwenger, 2020).

Another less explored area is how refugees, even when co-nationals, affect political outcomes which, in turn, impact the host population. Chevalier, Elsner, Licher, and Pestel (2018) examine the West-German setting after World War II to show that the refugee inflow from the former eastern territories significantly altered taxation and spending patterns of local governments. While areas with higher refugee inflows increased taxation for businesses and

---

<sup>16</sup> Borjas and Doran (2012) have a similar study, but for the *voluntary* migration of Soviet mathematicians to the U.S. after the collapse of the Soviet Union.

farms, they reduced spending on infrastructure and housing, and instead raised welfare expenditures. The authors show that these changes in spending patterns are persistent. They attribute this in part to the political influence of refugees who, being German nationals, had full voting rights in West Germany.

Refugees sometimes actively affect the societal and political landscape in their host countries. One such case is the failed 1848 democratic revolution in the German states. The political leaders of the revolution, the so-called Forty-Eighters, ultimately had to flee and most of them ended up in the United States. Dippel and Heblisch (2021) show that towns that received a Forty-Eighter had up to 80% higher enlistment rates on the side of the Union Army during the U.S. Civil War (1861-65). Due to their libertarian ideals, the revolutionary leaders were strongly opposed to slavery.<sup>17</sup> If a Forty-Eighter led a regiment, then those had markedly lower desertion rates. The effect is particularly pronounced for German-born soldiers. The study shows how these forced migrants carried their political ideals into the New World, and how they inspired others to fight for them.

Ochsner and Roesel (2020) study the long-run effects of population movements at the end of WWII in Upper Austria. Regions in Austria that witnessed an influx of Nazis fleeing the Soviets after WWII still have significantly higher far-right vote shares today. Migrated Nazi elites founded and penetrated local party branches that cultivate and preserve far-right ideologies. These results have a similar flavour to Dippel and Heblisch (2021) in that small groups of migrating political activists can influence political equilibria at destination, even over the long run.<sup>18</sup>

### **Norms and trust**

A flurry of recent work highlights the impact of forced migrants on societal norms of the receiving population. When forced migrants differ from the receiving population in their social norms, this can lead to diffusion of norms between the two groups. Miho et al. (2020) study Stalin's ethnic deportations during World War II. Their emphasis is on the comparison of areas that received mostly Protestant Volga Germans with areas that received Muslims from the

---

<sup>17</sup> Closely related is the abundant literature analysing slavery and other labor institutions, such as serfdom and free labor (see e.g. Sokoloff and Engerman, 2000), which is outside the scope of this survey.

<sup>18</sup> Migration of those with specific political beliefs has also been shown to be important in the context of voluntary migration. Becker, Mergele and Woessmann (2020) document that, between the end of WWII and the construction of the Iron Curtain, 20% of East Germans left the Communist East. Individuals staying in East Germany differed from those who moved to the West. They were less likely to be white-collar workers or self-employed, less educated, and probably more receptive to the communist doctrine.

North Caucasus. Both groups were deported from their original homelands within the Soviet Union to reduce the risk that these groups of non-Russians would undermine Soviet war efforts. Both groups were only allowed to return to their homelands after the collapse of the Soviet Union. The key finding is that in areas with more Protestant deportees, more gender-equal norms (which happened to coincide with Soviet ideology) diffused among the native Russian population,<sup>19</sup> whereas the more gender-unequal norms of Muslim deportees did not spread.

Baranov, Grosjean and Haas (2020) look at forced migration of convicts from Britain to the penal colonies of New South Wales and Tasmania and how it affected social norms. They describe convict-era Australia as a hierarchical society, consisting of an elite (colonial authorities and free settlers) that exercised control over what they perceived as a deviant convict underclass. Merging data on spatial variation in the presence of convicts across eighteenth and nineteenth century Australia with results from the country's 2017 poll on same-sex marriage and with household survey data, they find that in areas with higher historical convict concentrations, more Australians recently voted in favor of same-sex marriage and hold liberal views about marriage more generally.

Studying the same context, Grosjean and Khattar (2019) focus on imbalanced sex ratios resulting from the large numbers of male convicts and far fewer female convicts sent to Australia in the 18<sup>th</sup> and 19<sup>th</sup> centuries. In areas with more male-biased sex ratios, women were historically more likely to get married and less likely to work outside the home. Baranov, Grosjean and Haas (2021) use the same setting to show that areas with historically higher sex ratios are characterized by more violence, higher rates of male suicide and other forms of preventable male mortality, and more male-stereotypical occupational segregation.

Looking at the Soviet gulags mentioned before, Nikolova, Popova and Otrachshenko (2019) show that individuals who live near former gulags have low levels of social and institutional trust.

### **The Role of Policies towards Refugees in the Receiving Countries**

An issue that often receives relatively little attention in each individual paper, but is worth keeping in mind when trying to compare differences in results over space and time, is the role of policies towards refugees in the receiving countries. Such policies have varied over time and between destination countries.<sup>20</sup> Until the end of the nineteenth century it was relatively 'easy'

---

<sup>19</sup> Becker and Woessmann (2008) show evidence of more gender equality in education in Protestant versus Catholic counties in Prussia, likely a consequence of Luther's urge that every town should have a girls' school.

<sup>20</sup> I thank a referee for making the excellent points in this paragraph.

for refugees to escape persecution—the main constraint being the cost of migration and in some cases the difficulty of gaining exit. But policies in destination countries became more restrictive, reaching a low point in the 1930s, after which they were somewhat expanded but became more selective (see Hatton, (2020) for a more detailed account). Such policies may have relevance for the number and qualities of migrants and the outcomes in destination countries. Naturally, in the case of forced migration within the same country, such as the population movements of millions of Germans after WWII, or of Poles from Kresy to other parts of Poland, there is no issue of immigration restrictions *per se*. Still, even in those cases the occupying forces (Germany) or the national governments (Poland) tried to influence settlement patterns, i.e. there is always a policy context to be considered.

#### **IV. Consequences of Forced Migration for Sending Populations**

Events such as wars or natural disasters may affect the entirety of a local population but not necessarily everyone flees from such events. Whether stayers are positively or negatively selected depends on the conditions of the event. Stayers may be the wealthiest who have the means to cope with the adverse conditions, or the poorest who could not afford to migrate. In the case of civil wars, those who stay could be the least risk-averse or the most loyal to the current regime. In this sense, there are as many potential reasons for staying as for migrating.

Estimating how forced migration affects the stayer population is difficult when the cause for migration affects outcomes directly. The main challenge is to disentangle the direct effect of the natural catastrophe or war from the effects generated by the outmigration of select groups of individuals.

The effects of forced migration from the viewpoint of the stayer population are more easily studied when they are politically motivated. State-mandated expulsions, which target a specific group, are normally near-universal. Examples of this are the expulsions of Greeks and Armenians from the Ottoman Empire during and after World War I, the persecution and mass murder of Jews in Nazi Germany, or the removal of Poles from the Polish Eastern Borderlands (Kresy) after World War II by the Soviets. By definition, in the case of universal expulsion of certain groups, the effects of forced migration on stayers can only be analysed for individuals who do not belong to the affected migrant group.<sup>21</sup> The consensus in the literature is that

---

<sup>21</sup> Even though state mandated expulsions seek to remove an entire sub-population, usually some individuals of the affected group remain. This is because they are in hiding, disguise, or could take advantage of rare exceptions, such as Germans who married a Czech which opened the opportunity to re-apply for Czech citizenship and avoid expulsion from the Czech borderlands after World War II (see Testa, 2021).

expulsions tend to generate negative outcomes for stayers both at the individual level and at the aggregate level in the sending economies.

### **Aggregate Effects on Economies at Origin**

Mass scale expulsions have the potential to affect long-run economic outcomes by permanently altering an economy's social structure. One very well-known example illustrating this is the study of the long-run effect of Africa's slave trade in the period 1400 to 1900 on modern-day outcomes in Africa. Clearly, the slave trade constitutes a massive episode of forced migration to various destinations outside Africa. The most well-known findings are those by Nunn (2008) and Nunn and Wantchékon (2011). Nunn (2008) shows a robust negative relationship between the number of slaves exported from a country and current economic performance of that country. Nunn and Wantchékon (2011) show that current differences in trust levels within Africa can be traced back to the transatlantic and Indian Ocean slave trades. A key factor for the effect on trust is that a substantial share of the slaves was sold by relatives or friends, leading to a persistent feeling that "no one can be trusted". The literature on the legacies is vast, as illustrated by the existence of multiple surveys (e.g. Whatley (2015), Nunn (2017) and Section 4 in the JEL piece of Michalopoulos and Papaioannou (2020)) and it bears no benefit to repeat it here.

In a completely different context, that of the aftermath of the Holocaust in Soviet cities, Acemoglu, Hassan and Robinson (2011) compare cities and oblasts (administrative areas) with and without Nazi occupation during World War II. The authors provide evidence that increased intensity in the persecution and mass murder of Jews by the Nazis reduced cities' population size and increased vote shares for Communist political candidates in the post-war period. They find significantly lower wages and per capita incomes in affected oblasts today. They explain this finding by a reduction in the size of the middle class. As in the German case, Jews in the Soviet Union were overrepresented in white collar middle-class employment. The shock to this social structure is supposedly what is driving the persistence of the effects.

In a related setting, Grosfeld et al. (2013) exploit a spatial discontinuity created by the "Pale of Settlement" where Jews had permission to reside in the Russian Empire. With the Nazi invasion during World War II and the subsequent removal of Jews, municipalities in the Pale became more similar to municipalities across this informal border in terms of culture, ethnicity, and religion. The cohabitation of Jews and non-Jews on the Pale side of the border created strong *within*-group loyalty due to ethnic animosity. Despite the murder and deportation of Jews by the Nazis, the authors show that these entrenched cultural attitudes did not die out. In

contrast, municipalities in the former Pale of Settlement still display a significant anti-market culture and lower entrepreneurialism, but also higher levels of (bonding) trust among contemporary residents.

While cohabitation of groups can generate long lasting negative outcomes that persist even after the expulsion of a given group, the opposite is also possible. Arbatli and Gokmen (2018) show that Turkish districts that used to have an Armenian or Greek community until their expulsion in 1915-17 and 1919-23, respectively, have higher population density, urbanization rates, and night time luminosity today. The authors trace these findings to the positive effects of those minority communities on local human capital accumulation.

Again returning to legacies of the expulsion of Jewish populations, Pascali (2016) provides evidence that Italian municipalities that expelled their Jewish population in the 15<sup>th</sup> and 16<sup>th</sup> century have a less developed banking system and lower incomes today.

Testa (2021) uses the expulsion of 3 million Germans from the Czechoslovak borderlands after World War II as a natural experiment. In this case, Czechs and Germans were quite homogeneous in terms of their economic and cultural characteristics. For identification, he uses the sharp drop in the pre-WWII share of Germans at the border of the former *Sudetenland* to Nazi Germany which was formed after annexation of the Western part of Czechoslovakia in 1938 after the Munich agreement. The expulsion of Germans after WWII produced persistent disparities in population density, sector composition and educational attainment. The author traces the effects to selective initial resettlements (of Czechs into the formerly German-dominated areas) and capital extraction following the expulsion, culminating in urban decay and human capital decline.

Lee, Peri and Yasanov (2022) use an explicit repatriation policy in the US, whereby 400,000 Mexican immigrants were encouraged to go “back home” in 1929-34. Instrumenting county-level repatriations with the existence of a railway line to Mexico interacted with the size of the Mexican communities in 1910, they document that Mexican repatriations reduced employment of native incumbent workers and resulted in their occupational downgrading. This suggests that this repatriation policy did not benefit natives, as intended.

A paper with a slightly different flavour, investigating economic dynamics in the Malthusian era is Chaney and Hornbeck (2016). They use the 1609 expulsion of Moriscos from Spain. Moriscos were former Muslims and their descendants whom the Roman Catholic church and the Spanish Crown commanded to convert to Christianity or compulsory exile after Spain outlawed the open practice of Islam by its sizeable Muslim population. Between 1609 and 1614, the government began to expel them systematically from Spanish soil. Sharp population

declines in former-Morisco districts were accompanied by decreased output and increased *per capita* output, in line with standard Malthusian predictions. Yet, the Malthusian model would predict a fast convergence in population and per capita outputs. That convergence was however substantially delayed. The authors consider extractive institutions and cultural differences as key factors behind the sustained differences in per capita output in the Malthusian era.

### **Forced Migration and Political Outcomes**

Studying the same context of forced migration of Germans from Czechoslovakia, Grossman, Jurajda and Roesel (2021) point out that in areas liberated (and temporarily occupied) by the US Army, more anti-fascist Germans avoided displacement compared to regions liberated by the Red Army. The presence of these left-leaning stayers is associated with stronger post-war Communist party support and local party branch frequencies, as well as far-left values and social policies. The small German staying minority shaped the political identity of newly formed local societies after ethnic cleansing by providing the ‘small seed’ of political development. The *idea* of this paper resembles that of the minority of migrating ex-Nazis in Upper Austria which planted the seed of the post-war success of the right-wing FPÖ, discussed earlier.

### **Forced Migration and the Human Capital of Stayers**

A prominent setting for the study of forced migration and the educational outcomes of the staying population is the case of Jews in Nazi Germany. As a highly educated group themselves, Jews were disproportionately often employed as teachers in schools or universities. Their expulsion from civil service between 1933-38 had significant negative educational effects for the non-Jewish population in Germany at all levels of instruction.

Fifty years after the Holocaust, German residents, who were of school age during the years of Nazi persecution, had fewer years of education, and a lower probability to have completed school or to go to university, as Akbulut-Yuksel and Yuksel (2015) show. They exploit variation across cohorts and regional variation in the percentage of Jewish population to link modern-day outcomes to the expulsion of Jews. The deficit in human capital accumulation is particularly strong for girls, for boys who lived in areas with particularly high shares of Jewish population, and for those whose parents had lower levels of education. Bharadwaj, Khwaja and Mian (2015) find similar educational effects in a very different context, the population exchange between India and Pakistan after the partition. While they work with district-level data that cannot directly show the impact on educational attainment on the stayer population in

India, they provide evidence for strong compositional changes. Larger outflows of expellees are associated with lower literacy rates for the stayers. However, given the exchange character of this migration event, the same increase in inflows raised literacy rates by even more because of the higher educational attainment among migrants. Whether the stayer population gains or not depends on whether inflows offset outflows, and on the size of spillover effects that arise from having a more literate community in affected districts.

In the context of tertiary education, Waldinger (2010) documents significant drops in faculty quality among universities' mathematics departments where more Jewish scientists were removed from service by the Nazis. Looking at mathematics PhD students, he shows that PhD students who lost their advisors were less likely to publish their dissertation, to be promoted to full professor, and had lower lifetime citations. These effects were concentrated among younger scholars (PhD students on the verge of an academic career) and did not affect those with an already established career: in Waldinger (2012), he finds no effects of changes in peer quality on the scholarly outcomes of professors in mathematics, physics, and chemistry departments.

Looking at the mirror image of Hornung (2014), namely the consequences of the persecution of Huguenots in France, Chambru (2021) shows that (a) male literacy rates are higher in French départements in 1686-90 where the share of Huguenots is higher. This effect persists 100 years after the revocation of the Edict of Nantes in 1685, but is weaker where the share of Huguenot refugees is larger than the national mean. These results suggest both positive spill-overs of more highly educated Protestants (Becker and Woessmann, 2009) on Catholics as well as attenuated persistence as a result of the involuntary migration of Huguenots.

### **Effects on Firm-Level Outcomes in Sending Economies**

Expulsion of high-skilled can be detrimental also to firm-level outcomes. An example for this is provided by Huber et al. (2021). They consider large firms in Nazi Germany after the removal of Jewish managers. The population share of Jews in Germany in the early 1930s was less than one percent, yet the share of senior managers with a Jewish background was close to 16 percent. The dismissal of these leaders was associated with a reduction in the observable characteristics of firms' senior management with respect to experience, university degrees, and connections to other firms. The authors show a significant drop in firm value on the stock markets which lasts until the end of the sample period in 1943. Dividend payments and the return to assets were reduced as a result.

Even though the evidence so far is mainly focused on historic contexts that provide natural experiments for internally valid identification of effects, the overall indication is that forced migration of certain subpopulations via expulsion is detrimental to locals of the sending economy. This is true both at the individual and the aggregate level. The caveat is again that Jews were an above-average skilled group. Yet, the case of the Czech borderlands also shows that expulsion of a group (Germans) that is quite similar to locals (Czechs) can have lasting negative consequences for the expelling economy.

Another focal point of the previous literature has been human capital. What has received comparatively less attention is that forcing out substantial parts of the population can have additional negative consequences. This may be due to the destruction of physical capital in the case of war, formal and informal networks, or agglomeration economies. For instance, the lack of sufficiently densely populated areas can harm the expelling economy in the long-run (see Testa, 2021).

## **V. The Decision to Migrate under Threats: The Role of Networks**

While the research on war-time expulsions generally argues that migrants had no choice but to leave their home regions, many contexts of “forced migration” do display margins of choice: *whether* to stay despite all the threats, and/or *when* to leave. In other words, completely voluntary and completely forced migration mark two ends of a spectrum, with the reality often somewhere in between.

Economic historians have made some headway in documenting selective migration. For instance, Blum and Rei (2018) show that European Jews who escaped the Holocaust through the port of Lisbon were positively selected.<sup>22</sup>

Some recent work has put a strong emphasis on the role of networks, acknowledging that the decision to migrate is not taken in isolation. To study the role of networks in history, one needs particularly rich historic data. Here, we will in detail discuss three recent studies dealing with salient episodes of Jewish persecution in Europe in the first half of the 20<sup>th</sup> century: the persecution of Jews in the Russian Empire, and persecution of Jews in Nazi Germany, which culminated in the Holocaust.<sup>23</sup>

---

<sup>22</sup> Selection of refugees is also a very active area of research with respect to more recent periods (e.g. Aksoy and Poutvaara, 2021).

<sup>23</sup> The material in this section was one key focus of the Butlin lecture. Clearly, network effects are most likely at play in many contexts, including the displacement of Indigenous peoples.

Spitzer (2018) studies pogroms against Jews in the Russian Empire in the period 1881-1914 and how they impact on migration of Jews to the United States. He uses individual-level data from Ellis Island shipping records to trace the arrival of Jewish migrants. Since the exact location of origin is not available throughout, a further source of information is data on *landsmanshaftn*, hometown-based associations, that were active in New York and other large US cities and were a focal point for newly arrived migrants. The foundation of such *landsmanshaftn* is a clear indicator that there is a critical mass of migrants from a specific location of origin. These migration data are linked with data on pogroms across the Russian Empire. Two waves of pogroms (1881-1882 and 1903-1906) stand out. A simple hypothesis would suggest that pogroms in a specific location in the Russian Empire automatically trigger emigration to the United States. But the reality is more complex. While a pogrom is clearly a push factor, without a pre-existing network in the US, many do not dare to embark on emigration to the US. In fact, Spitzer (2018) shows that pogroms only trigger large-scale emigration of Jews if there are existing prior migration networks. As more and more Jews from neighboring areas in the Russian Empire migrate to the US, this fosters a process of spatial diffusion in the country of origin. These empirical findings go well beyond the simplistic push-pull paradigm in the economics literature and show that network theories help to enrich our understanding of migration patterns.

Bugge, Mayer, Sakalli, and Thoenig (2020) study the role of persecution and community networks in the emigration of Jews from Nazi Germany. Using data from the so-called *Residentenliste*, the list of Jewish residents in Nazi Germany, Bugge et al. (2020) measure community networks of German Jews using individuals born in the same city, but living in a different city by 1933, when Hitler came to power. This definition of community networks based on different places of birth within the same city of residence is a smart way to ensure that location-specific factors at the place of residence can be absorbed by city fixed effects while exploiting variation in the number of ties to childhood friends and relatives who still reside at place of birth. Estimating a structural model of migration where individuals base their own migration decision on the observation of persecution and migration among their peers, they show that emigration of members of the community network and Nazi violence against members of their network increased emigration probabilities of German Jews. The authors also perform various experiments of counterfactual history in order to quantify how migration restrictions in destination countries affected the fate of Jews. Immigration restrictions in destination countries are shown to have been a major impediment to Jewish emigration from Nazi Germany, restrictions that ultimately cost many lives.

While the focus of Buggle et al. (2020) is on the role of community networks in migration under persecution, and on counterfactual history, Becker, Lindenthal, Mukand, and Waldinger (2021) focus on professional networks in the emigration of high-skilled Jews from Nazi Germany. Soon after the Nazis rose to power in 1933, they issued the so-called “Law for the Restoration of the Professional Civil Service” in order to remove all Jews working in the public sector from their jobs. The timing of dismissals created individual-level exogenous variation in the timing of emigration from Nazi Germany, allowing for estimation of the causal effect of networks for emigration decisions. Academics with ties to more colleagues who had emigrated in 1933 or 1934 (early émigrés) were more likely to emigrate. The early émigrés functioned as “bridging nodes” that helped other academics cross over to their destination. This is exemplified by the world-class mathematician Richard Courant from Göttingen, who left Germany for Cambridge, UK in 1933, and moved to NYU in 1934. “*Letters asking for help and advice came “by the dozens” from mathematicians in Germany*” (see Reid 1996, p. 159). Not only did he offer advice, but he also wrote reference letters for fellow mathematicians, and for those arriving by ship in New York, he often offered additional advice. Underlining the notion of “bridging nodes”, a larger number of ties to early émigrés in the UK/US increases the probability that an academic would also go to the UK/US, whereas a larger number of ties to early émigrés in other countries lowers the probability of going to the UK/US. Furthermore, the authors provide empirical evidence of decay in social ties over time. For these results, they split ties to early émigrés into two groups: ties to recent colleagues (on 1 January 1933) and ties to less recent colleagues (overlap between 1929 and 1932, but not in 1933). The results suggest that ongoing ties are more effective than past ties. The strength of ties also decays across space, even within cities. This analysis differentiates between ties to early émigrés from the same subject in a) the same department versus b) other departments in the same city. Finally, for high-skilled migrants, professional networks are more important than community networks. Here, the definition of community networks follows the same definition (and data) as Buggle et al. (2020).

The latter two papers nicely complement each other by highlighting different aspects of emigration from Nazi Germany. A tentative summary of the findings in this section is that networks are particularly important in facilitating migration in the presence of restrictive refugee immigration policies, and that Jewish refugees were positively selected. This stands in

contrast to the typical findings, which are that for voluntary migrants, network connections tend to result in negative selection (Beine et al., 2011).<sup>24</sup>

The lesson for researchers from these three *exemplary studies* is threefold: first, there is a spectrum between perfectly voluntary migration and forced migration and every context deserves careful attention to where on that spectrum a migration episode is located. Second, in intermediate cases where migration – while not voluntary – is also not universal, understanding the factors that drive selective migration are an important area of research. Third, insights from network economics seem particularly suited to understand how decisions of others impact the own decision to migrate under threats.

## VI. Summary and directions for future research

Forced displacement in economic history has received increased attention over the past decade. Most research has focused on mass expulsions as a result of major wars, in particular after WWII, and the end of colonial rule, e.g. the population exchanges in India and Pakistan after 1947. There is far less work on forced migration as a consequence of natural disasters in economic history. This already points to a first gap to be filled by future research.

This survey only briefly referred to the displacement of indigenous peoples after Europeans arrived in the Americas and the Pacific region. The literature in economics and economic history in this area is still relatively small compared to the relatively large literatures connected with population movements around WWII, but it is arguably a big and important topic that should receive more attention in the future.

The literature surveyed has made a lot of progress in studying the consequences of forced migration on receiving populations, as well as on migrants themselves. An area of study that deserves more attention is which historical interventions have minimized the extent of negative impacts on displaced themselves.

What has received less attention is the effect of forced migration on sending areas. While the persecution of Jews in Nazi Germany and the Holocaust have been subject of quite some research, in many other cases the research on consequences of forced migration on receiving populations is not matched by a corresponding study of the effects of the same episode on the sending area. For instance, rigorous empirical analysis of the effect of forced migration of Forty-Eighters who left Germany after the failed 1848 revolution is not matched by equally

---

<sup>24</sup> Beine et al. (2011), for the case of voluntary migration, write that “diasporas increase migration flows and lower their average educational level”.

rigorous research on the effect of their expulsion on economic and political development in their regions of origin. The strand of the literature studying the outcomes of stayers in the sending economy has focused on education and economic performance at the aggregate level. Expulsions, however, provide many more changes that can be exploited. This includes the reduction in ethnic or religious diversity, or group-specific wealth and knowledge concentration which can further affect stayers in terms of economic but also social outcomes. Furthermore, in more extreme case of wholesome displacement: which benefits (if any) accrue to those who move into the vacated space?

The effects of forced migration on stayers have also mainly been studied for cases of state-mandated expulsion that were near universal. The main challenge when estimating the effects of civil wars or natural disasters is to isolate the impact of forced migration from the direct effects of the shock on stayers' outcomes. Improving our current knowledge in this area would have important policy implications. Studies in historic context would be particularly fruitful as it allows us to study the long-term effects of such events.

A promising area with so far little research is that of selective migration in the face of persecution. While there are many cases of (near-)universal expulsion that have been studied, there are episodes where despite persecution not all those targeted by it do emigrate. A related issue that has received little attention in the context of forced migration is return migration/repatriation in those (few) cases where refugees are able to return to their location of origin. Naturally, in order to answer this question, one needs micro-level data permitting to distinguish between leavers and stayers in the same location. Such detailed data can be hard to come by in historic contexts, especially when one also wants to exploit the destination of those who migrate. The very recent literature has made some headway in this direction, and it has drawn on insights from network theories to understand emigration patterns. More research in this area is welcome, and will enrich our understanding of what drives migration under persecution.

## References

Abel, M. (2019) Long-Run Effects of Forced Resettlement: Evidence from Apartheid South Africa, *Journal of Economic History* 79(4): 915-953.

Abramitzky, R. (2015) Economics and the Modern Economic Historian, *Journal of Economic History* 75(4): 1240-1251.

Abramitzky, R., Boustan, L.P. (2017) Immigration in American Economic History, *Journal of Economic Literature* 55(4): 1311–1345

Abramitzky, R., Boustan, L.P., and Eriksson, K. (2020) Do Immigrants Assimilate More Slowly Today Than in the Past? *American Economic Review: Insights* 2(1): 125-141.

Acemoglu, D., Hassan, T.A., and Robinson, J.A. (2011) Social Structure and Development: A Legacy of the Holocaust in Russia, *Quarterly Journal of Economics* 126(2): 895-946.

Akulut-Yuksel, M. and Yuksel, M. (2015) The Long-Term Direct and External Effects of Jewish Expulsions in Nazi Germany, *American Economic Journal: Economic Policy* 7(3):58-85.

Aksoy, C. G. and Poutvaara, P. (2021), “Refugees’ and Irregular Migrants’ Self-Selection into Europe: Who Migrates Where?” *Journal of Development Economics* 152, article 102681.

Algan, Y., Dustmann, C., Glitz, A., and Manning, A. (2010) The Economic Situation of First and Second-Generation Immigrants in France, Germany and the United Kingdom, *The Economic Journal* 120(542): F4-F30.

Angrist, Joshua D. and Jörn-Steffen Pischke (2010) The Credibility Revolution in Empirical Economics: How Better Research Design Is Taking the Con out of Econometrics, *Journal of Economic Perspectives* 24(2): 3-30.

Arbatli, C.E. and Gokmen, G. (2018) Ethnic Capital and Sub-national Development: Armenian and Greek Legacy in Post-expulsion Turkey, <http://dx.doi.org/10.2139/ssrn.3273964>.

Artiles, Miriam (2020) Within-Group Heterogeneity in a Multi-Ethnic Society, *mimeo* UPF.

Baranov, Victoria, Ralph De Haas, and Pauline Grosjean (2020) “Queens of the Desert: Convictism and Marital Attitudes across Australia”, *AEA Papers and Proceedings* 110: 457–462.

Baranov, Victoria, Ralph De Haas, and Pauline Grosjean (2021) “Men. Roots and Consequences of Masculinity Norms”, *SSRN Discussion Paper* 3185694.

Bauer, T.K., Braun, S., and Kvasnicka, M. (2013) The Economic Integration of Forced Migrants: Evidence for Post-War Germany, *Economic Journal* 123(571): 998-1024.

Bauer, T.K., Giesecke, M., and Janisch, L.M. (2019) Forced Migration and Mortality, *Demography* 56: 25–47.

Becker, Sascha O. (2020) “Long-Term Consequences of Forced Displacement: Three Salient Themes”, *Quarterly Digest on Forced Displacement*. Washington, D.C.: World Bank Group. <https://doi.org/10.47053/jdc.010720/ar.01>

Becker, S.O., and A. Ferrara (2019) Consequences of forced migration: A survey of recent findings, *Labour Economics* 59: 1-16.

Becker, S.O., Grosfeld, I., Grosjean, P., Voigtländer, N., and Zhuravskaya, E. (2020) Forced Migration and Human Capital: Evidence from Post-WWII Population Transfers, *American Economic Review* 110(5): 1430-1463.

Becker, Sascha O., Volker Lindenthal, Sharun Mukand, and Fabian Waldinger (2021) “Persecution and Escape: Professional Networks and High-Skilled Emigration from Nazi Germany” *CAGE Working Paper* 542.

Becker, Sascha O., Lukas Mergele, and Ludger Woessmann (2020) “The Separation and Reunification of Germany: Rethinking a Natural Experiment Interpretation of the Enduring Effects of Communism” *Journal of Economic Perspectives*, 34(2): 143-171.

Becker, S. O., Mukand, S. and Yotzov, I. (2021) Persecution, Pogroms and Genocide and Lessons from the Jewish Experience in the 20th Century, *mimeograph*.

Becker, S.O. and Woessmann, L. (2008) Luther and the Girls: Religious Denomination and the Female Education Gap in 19th Century Prussia, *The Scandinavian Journal of Economics* 110(4): 777-805.

Becker, S.O. and Woessmann, L. (2009) Was Weber Wrong? A Human Capital Theory of Protestant Economic History, *The Quarterly Journal of Economics* 124(2): 531–596.

Beine, M., Docquier, F. and Özden Ç. (2011), Diasporas, *Journal of Development Economics* 95(1): 30-41.

Bharadwaj, P., Khwaja, A.I., and Mian, A. (2015) Population Exchange and its Impact on Literacy, Occupation and Gender – Evidence from the Partition of India, *International Migration* 53(4): 90-106.

Bharadwaj, Prashant, and Mirza, Rinchan Ali (2019) Displacement and development: Long term impacts of population transfer in India, *Explorations in Economic History* 73: 101273

Bisin, A. and Verdier, T. (2000) “Beyond the Melting Pot”: Cultural Transmission, Marriage, and the Evolution of Ethnic and Religious Traits, *Quarterly Journal of Economics* 115(3): 955-988.

Black, Sandra E., Hannah Liepmann, Camille Remigereau, and Alexandra Spitz-Oener (2022) “Refugee-Specific Government Aid, Institutional Embeddedness and Child Refugees’ Economic Success Later in Life: Evidence from Post-WWII GDR Refugees”, *Labour Economics*, forthcoming. <https://doi.org/10.1016/j.labeco.2021.102099>

Blum, Matthias and Claudia Rei (2018) Escaping Europe: health and human capital of Holocaust refugees, *European Review of Economic History* 22 (1): 1–27.

Boberg-Fazlic, Nina and Paul Sharp (2020) Is there a Refugee Gap? Evidence from Over a Century of Danish Naturalizations, *EHES Working Paper* 194.

Borjas, G. J. (1987), “Self-Selection and the Earnings of Immigrants,” *American Economic Review* 77(4): 531-553.

Borjas, G. J. and Doran, K. B. (2012) The Collapse of the Soviet Union and the Productivity of American Mathematicians, *Quarterly Journal of Economics* 127(3): 1143-1203.

Braun, S. and Dwenger, N. (2020) Settlement location shapes the integration of forced migrants: Evidence from post-war Germany, *Explorations in Economic History* 77: 101330.

Braun, S. and Kvasnicka, M. (2014) Immigration and Sectoral Change: Evidence from Post-war Germany. *Journal of International Economics* 93(2), 253–269.

Braun, S. and Mahmoud, T.O. (2014) The Employment Effects of Immigration: Evidence from the Mass Arrival of German Expellees in Postwar Germany, *Journal of Economic History*, 74(1): 69-108.

Bugge, Johannes, Thierry Mayer, Orcan Seyhun Sakalli, and Mathias Thoenig (2020) The

Refugee's Dilemma: Evidence from Jewish Migration out of Nazi Germany, *CEPR Discussion Paper* 15533.

Carlos, Ann M., Donna Feir, and Angela Redish (2021) Indigenous nations and the development of the US economy: Land, resources, and dispossession, *QUCEH Working Paper Series*, No. 2021-04.

Chambru, Cédric (2021) Protestantism, Human Capital and Religious Persecution: Evidence from Early Modern France, *mimeo*.

Chaney, Eric, and Richard Hornbeck (2016) Economic Dynamics in the Malthusian Era: Evidence from the 1609 Spanish Expulsion of the Moriscos, *Economic Journal* 126(594): 1404-1440.

Chevalier, A., Elsner, B., Licher, A., and Pestel, N. (2019) Poor Voters, Taxation, and the Size of the Welfare State, updated version of *IZA Working Paper No. 11725*.

Dell, Melissa (2010) "The Persistent Effect of Peru's Mining Mita" *Econometrica* 78(6): 1863-1903.

Dippel, C. (2014) Forced coexistence and economic development: evidence from native American reservations. *Econometrica* 82(6), 2131–2165.

Dippel, C. and Hebllich, S. (2021) Leadership in Social Movements: Evidence from the "Forty-Eighters" in the Civil War, *American Economic Review* 111(2): 472-505.

Faguet, J.P., F. Sánchez and C. Matajira. (2017) Is Extraction Bad? Encomienda and Development in Colombia Since 1560. *Documento CEDE No. 2017-48*, Available at SSRN: <https://ssrn.com/abstract=3007769>.

Falck, Oliver, Hebllich, S., and Link, S. (2012) Forced Migration and the Effects of an Integration Policy in Post-WWII Germany, *The B.E. Journal of Economic Analysis & Policy* 12(1): 1-27.

Feir, Donna L. (2016) The long-term effects of forcible assimilation policy: The case of Indian boarding schools, *Canadian Journal of Economics* 49(2): 433-480.

Ferrara, Andreas and Price Fishback (2020) Discrimination, Migration, and Economic Outcomes: Evidence from World War I, *NBER Working Paper* 26936.

Gregg, M. T. and D. M. Wishart (2012) The Price of Cherokee removal, *Explorations in Economic History* 49(4): 423-442.

Gregg, M. T. (2018) The Long-Term Effects of American Indian Boarding Schools, *Journal of Development Economics* 130(1): 17-32.

Grosfeld, I., Rodnyansky, A., and Zhuravskaya, E. (2013) Persistent Anti-Market Culture: A Legacy of the Pale of Settlement after the Holocaust, *American Economic Journal: Economic Policy* 5(3): 189-226.

Grosjean, Pauline, and Rose Khattar (2019) "It's Raining Men! Hallelujah? The Long-Run Consequences of Male-Biased Sex Ratios", *The Review of Economic Studies* 86(2): 723–754.

Grossmann, Jakub, Štefan Jurajda, and Felix Roesel (2021) "Forced Migration, Staying Minorities, and New Societies: Evidence from Post-War Czechoslovakia" *IZA DP No. 14191*.

Hatton, T. J. (2020) Asylum Migration to the Developed World, *Journal of Economic Perspectives* 34(1): 75-93

Haukka, J., Suvisaari, J., Sarvimäki, M., and Martikainen, P. (2017) The Impact of Forced

Migration on Mortality: A Cohort Study of 242,075 Finns from 1939–2010, *Epidemiology* 28(4): 587-593.

Hornbeck, Richard (2020) Dust Bowl Migrants: Identifying an Archetype, *NBER Working Paper* 27656.

Hornung, Erik (2014) Immigration and the Diffusion of Technology: The Huguenot Diaspora in Prussia, *American Economic Review* 104(1): 84-122.

Huber, K., Lindenthal, V., and Waldinger, F. (2021) Discrimination, Managers, and Firm Performance: Evidence from “Aryanizations” in Nazi Germany, *Journal of Political Economy* 129(9): 2455-2503.

Lee, J., Peri, G. and V. Yasenov (2022) The Labor Market Effects of Mexican Repatriations: Longitudinal Evidence from the 1930s, *Journal of Public Economics* 205: 104558.

Margo, Robert A. (2018) The integration of economic history into economics, *Cliometrica* 12(3): 377–406.

Michalopoulos, Stelios, and Papaioannou, Elias (2020) Historical Legacies and African Development, *Journal of Economic Literature* 58(1): 53-128.

Miho, Antonela, Alexandra Jarotschkin, and Ekaterina Zhuravskaya (2020) Diffusion of Gender Norms: Evidence from Stalin’s Ethnic Deportations, SSRN WP Nr. 3417682: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3417682](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3417682)

Mitchener, K. (2015) The 4D Future of Economic History: Digitally-Driven Data Design, *Journal of Economic History* 75(4): 1234-1239.

Moser, P., Voen, A., and Waldinger, F. (2014) German Jewish Émigrés and US Invention, *American Economic Review* 104(10): 3222-3255.

Murard, E. and Sakalli, S.O. (2019) Mass Refugee Inflow and Long-Run Prosperity: Lessons from the Greek Population Resettlement, (updated version of) *IZA Working Paper No. 11613*.

Nakamura, E., Sigurdsson, J., and Steinsson, J. (2021) The Gift of Moving: Intergenerational Consequences of a Mobility Shock, *Review of Economic Studies, forthcoming*.

Nikolova, Milena, Olga Popova and Vladimir Otrachshenko (2019) Stalin and the Origins of Mistrust, *IZA Discussion Paper* No. 12326.

Nunn, Nathan (2008) The Long-term Effects of Africa's Slave Trades, *The Quarterly Journal of Economics* 123(1): 139-176.

Nunn, Nathan (2017) Understanding the Long-Run Effects of Africa's Slave Trades. In: *Long Economic and Political Shadow of History*, Volume 2: Africa and Asia, edited by Stelios Michalopoulos and Elias Papaioannou, 37–49. London: Center for Economic and Policy Research (CEPR).

Nunn, Nathan and Léonard Wantchékou (2011) The Slave Trade and the Origins of Mistrust in Africa, *American Economic Review* 101(7): 3221- 3252.

Ochsner, Christian, and Felix Roesel (2020) Migrating Extremists, *The Economic Journal* 130(628): 1135–1172.

Pascali, Luigi (2016) Banks and Development: Jewish Communities in the Italian Renaissance and Current Economic Performance, *Review of Economics and Statistics* 98(1): 140-158.

Peters, Michael (2022) Market Size and Spatial Growth - Evidence from Germany's Post-War Population Expulsions, *conditionally accepted at Econometrica*.

Rauhut, Daniel (2010) Adam Smith on Migration, *Migration Letters* 7(1): 105–113.

Reid, C., *Courant*, Springer Science & Business Media, 1996.

Saarela, J. and Finnäs, F. (2009) Forced Migration and Mortality in the Very Long Term: Did Perestroika Affect Death Rates also in Finland?, *Demography* 46(3): 575-587.

Sarvimäki, M. (2011) Agglomeration in the Periphery, *mimeo*.

Sarvimäki, M., Uusitalo, R., and Jäntti, M. (2020) Habit Formation and the Misallocation of Labor: Evidence from Forced Migrations, *mimeo*.

Schumann, A. (2014) Persistence of Population Shocks: Evidence from the Occupation of West Germany after World War II, *American Economic Journal: Applied Economics* 6(3): 189–205.

Sokoloff, K. L., and Engerman, S. L. (2000) Institutions, Factor Endowments, and Paths of Development in the New World, *Journal of Economic Perspectives* 14 (3): 217-232.

Sirling, Arthur (2011) U.S. Treaty Making with American Indians: Institutional Change and Relative Power, 1784–1911, *American Journal of Political Science* 56(1): 84-97.

Spitzer, Yannay (2018) Pogroms, Networks, and Migration: The Jewish Migration from the Russian Empire to the United States, 1881–1914, *mimeo* (version May 25, 2018).

Testa, P. (2021) The Economic Legacy of Expulsion: Lessons from Postwar Czechoslovakia, *Economic Journal* 131(637): 2233–2271.

Toews, Gerhard, and Vézina, Pierre-Louis (2021) Enemies of the People, *Working Paper* May 2021.

Valencia Caicedo, Felipe (2019) The Mission: Human Capital Transmission, Economic Persistence, and Culture in South America, *Quarterly Journal of Economics* 134(1): 507–556.

Verme, Paolo, and Kirsten Schuettler (2021) The impact of forced displacement on host communities: A review of the empirical literature in economics, *Journal of Development Economics* 50, article 102606.

Waldinger, F. (2010) Quality Matters: The Expulsion of Professors and the Consequences for PhD Student Outcomes in Nazi Germany, *Journal of Political Economy* 118(4): 787-831.

Waldinger, F. (2012) Peer Effects in Science: Evidence from the Dismissal of Scientists in Nazi Germany, *Review of Economic Studies* 79(2): 838-861.

Whatley, Warren C. (2015) The Economic Legacies of the African Slave Trades. In: *The Oxford Handbook of Africa and Economics*. Volume I. Context and Concepts, edited by Célestin Monga and Justin Yifu Lin, 504–21. Oxford: Oxford University Press.

Wolfe, Patrick (2006) Settler colonialism and the elimination of the native, *Journal of Genocide Research*, 8(4): 387-409.