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Refugee-Specific Government Aid, Institutional Embeddedness and Child Refugees' Economic Success Later in Life: Evidence from Post-WWII GDR Refugees

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Abstract:

We exploit a unique historical setting to investigate how refugee-specific government aid affects the medium-term outcomes of refugees who migrate as children and young adults. German Democratic Republic (GDR) refugees who escaped to West Germany between 1946 and 1961 who were acknowledged to be "political refugees" were eligible for refugee-targeted aid, but only after 1953. We combine several approaches to address identification issues resulting from the fact that refugees eligible for aid are both self-selected and screened by local authorities. We find positive effects of aid-eligibility on educational attainment, job quality and income among the refugees who migrated as young adults (aged 15-24). We 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. The often-found negative effects in various measures of integration in other refugee episodes are therefore likely driven by confounding factors that our unique historical setting mitigates.

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1. Introduction

Refugees receive much attention in the current political climate, where there is vigorous debate about the large influx of refugees from countries such as Syria and Afghanistan. Many destination countries have programs designed to help these refugees adjust to their new environments, often providing financial support to meet basic needs as well as job-search assistance. By doing so, they acknowledge the challenges that refugees face. At the same time, however, there is increasing concern about the growing burden of welfare expenditures on refugees.[1]

Refugee children are a particularly vulnerable population—families arrive to a foreign location, often with no resources. While there is a substantial literature documenting the long-run consequences of child poverty and the benefits of targeted public policy, there is very little research documenting the role of targeted policies for refugees on the outcomes of the refugee children, despite the importance of the topic.[2] In this paper, we examine the role of refugee-specific government aid paid to the parents' generation on the medium-term outcomes of refugees who migrate from East to West Germany with their family as children (aged 1-14) and young adults (aged 15-24).

A divided Germany in the post-WWII era provides us with a unique historical setting to examine the impact of refugee aid on refugees who arrive as children and young adults. From the end of the war in 1945 until the Berlin Wall was built in 1961, an estimated 3.6 to 4.5 million East Germans escaped from the communist German Democratic Republic (GDR) and migrated to the Federal Republic of Germany (FRG), or West Germany; a large fraction of refugees arrived as children or young adults. [3,4]

[1] There is surprising little research on how welfare affects the success of refugees. Exceptions are Andersen, Dustmann, and Landerso (2018) and LoPalo (2019), which we will review in detail further below. Those papers focus on refugees who migrate as adults, not their children, as we do. There is also research on refugee settlement policies and the consequences of ethnic enclave formation (Edin et al. 2003, Damm 2009); however, this work does not consider the effects of welfare programs. Papers have also stressed the importance of distinguishing refugees, or forced migrants more generally, from voluntary migrants in research (Becker and Ferrara, 2019; Dustmann et al. 2017).

[2] See Aizer et al. 2016, Chetty et al. 2011, Dahl and Lochner, 2012, Hoynes et al. 2016, and Løken et al. 2018, among others, for research on family resources, welfare programs and children's outcomes outside the refugee context. Hoynes and Schanzenbach (2018) provide on excellent overview of the core childhood social safety net programs in the United States, how programs have changed over time, and how those changes altered the composition of those who benefit, as well as on research in that area of the literature.

[3] We refer to the East German part that in 1949 became the German Democratic Republic as "GDR" throughout the manuscript for ease of exposition. Before 1949, it was the Soviet Occupation Zone.

[4] According to our data, 32 percent of refugees arrived before the age of 15, and about 41 percent were between 15 and 25 upon arrival.

Like refugees from other countries, East Germans left behind their belongings and social ties when they escaped from the East. Upon arrival in West Germany, they faced the economic, social, and psychological hardship brought about by flight experiences. However, unlike other refugee populations, these newcomers were physically indistinguishable from the West Germans, shared the same language, culture, religious background and – before 1945 – lived in the same country and shared similar war and other historical experiences. So, overall, this historical event provides us with several groups – refugee groups and natives – that are very similar but differ in terms of whether they fled their home and whether they were eligible for government aid. This unique situation enables us to identify the effect of refugee aid on the academic and economic success of children whose families were displaced from their homes, belongings, and social network, but who did not have the additional burden of language and cultural assimilation, thus providing a better understanding of the role of additional economic resources on children's academic success.

The specific setting of our study allows us to eliminate factors that often distort the integration of migrants, among them language barriers, mismatch of educational and vocational degrees, and legal issues related to residence or work permits. While this might constrain the one-to-one generalizability of results to other (more typical) groups of refugees when they arrive as adults, this is less of a concern when focusing on child refugees since they learn the host country language quite fast and, depending on their age at arrival, are readily integrated into the host country educational system. However, parents' obstacles to integration, including proficiency in the host country language, might matter for the outcomes of children. The analysis of our specific group of refugee children allows us to pin down the effects of government aid on families who must start anew—with the involuntary displacement, economic hardship, and social and psychological consequences that might be involved—while abstracting from other parental characteristics that potentially impede integration. The latter include host country language deficiencies, educational mismatch, and certain legal restrictions.

Refugees to the FRG were initially housed in camps where they underwent severe screening from West German, U.S., British and French authorities.[5] At the end of this screening which could

[5] Despite the similarities between refugees and natives, the political climate at the time was such that the GDR refugees were not welcomed with open arms. In contrast, the authorities in West Germany saw the GDR refugees as potential threats to social stability because of common fears that the newcomers were criminals, smugglers, and Communist agents (Limbach, 2011). The Allied countries typically involved their intelligence units with the goal to detect communist spies or learn about strategic information the refugees might have. As Limbach (2011) states "…there is little difference how the FRG treated East Germans in 1952, and how they came to treat Croatian refugees in 1992 or Afghan refugees in 2010 (p. 3)."

take several weeks, GDR refugees were classified as either economic or political GDR refugees. Only the latter were considered genuine refugees which – after 1953 – made them eligible for refugee-specific support programs, while both groups could stay in the West.[6]

The fact that both groups of refugees could remain in the West is important for our analysis, as it enables us to observe the entire pool of applicants, and not just those refugees who were eligible for aid. In addition, the fact that the welfare program for refugees was only introduced in 1953 – about 8 years into the refugee influx – helps with identification. For one, we can use information on the year of arrival in the West to show that the selection of refugee parents stayed constant over time and did not change after the welfare program was introduced. In addition, we can separately identify effects for those who became immediately eligible for government aid (because they arrived in 1953 or thereafter) and those who became eligible some years after arrival (because they arrived before 1953).

Specifically, we analyze how refugee-specific government spending affects the medium-term economic success of refugees who arrived as children (1-14 years old) and as young adults (15-24 years old). Age-at-arrival is an important determinant of integration success, typically for reasons that have to do with language proficiency (Bleakley and Chin 2010). In our context, given that refugees speak the same language as natives, the institutional connection to the host country is the most important reason for distinguishing the newcomers by age-at-arrival. Children younger than 14 were subject to compulsory schooling, so they were readily integrated in the West German education system and were then naturally connected to the institutions of their new home country. Those who were 15-24 upon arrival were much less naturally institutionally integrated in West Germany. In principle, they could continue going to school, do an apprenticeship degree, attend university, or immediately start working.[7]

Our empirical set-up differs in an important way from the one used in the "age-at-arrival" literature. While that literature distinguishes people who arrive in a new country at different ages,

[6] Interestingly, the East Germans fleeing to the FRG represented various socio-economic backgrounds, and overall, compare well with the West German population at the time. Certain groups are overrepresented, including families with fathers who were self-employed, who were farmers, or who had a university degree. This occurred because the oppression by the GDR government was rooted in communist ideology aiming at increasing social equality and forming socialist personalities. To achieve that goal, the regime used parents' education levels and occupations to identify families that needed intervention and re-education. We address this directly in our estimation strategy.

[7] Note that differences by age-at-arrival in institutional connection to the host country is also important in the context of other refugee groups. The refugee children from Syria, for example, who arrived in Germany before the age of 16 have an immediate institutional connection to their new home country because of mandatory school requirements, whereas this is not the case for older refugees.

we condition on age-at-arrival, and then ask whether those who were eligible for government aid fared differently from those who were not eligible.

We also argue that – although our focus is on children and young adults – the decision to flee the GDR was made by the parents. When it comes to identification, it is therefore important to show that parents did not base their decision on the age of their offspring, and we provide detailed balancing tests, in addition to other evidence.

We observe outcomes of the refugee children at least 10 years after arrival. We therefore focus on their medium-term success. It could, for example, be that the impact of refugee-specific government aid is only important for refugee children in the short term and then dissipates with time in the country—particularly in countries where schooling is mandatory and tuition-free, and the social safety net is comprehensive. In contrast to children, young adults might be more vulnerable to an absence of refugee-specific government aid since they are less naturally linked to the educational institutions of the host country. Economic necessity combined with a lack of government assistance may preclude these young adult refugees from pursuing higher education, which might have been beneficial for their long-term well-being.

Our data capture the father's education, the mother's education, the father's industry, and the father's occupational status. These are the most important observable characteristics that the GDR regime used to identify potential "class enemies" who needed re-education and other interventions to become "good socialist citizens." Accordingly, the West German and Allied authorities also used these observable characteristics to determine who were genuine political refugees. One important concern was that if refugee-targeted support programs were implemented for all East Germans fleeing the GDR, this would encourage more to come. As a result, only in 1953 were refugee-specific aid programs implemented for the GDR refugees. This decision came as a surprise, and only genuine political refugees became eligible for aid.[8]

Thus, the difficult task of identifying the effect of government aid on outcomes is facilitated in our historical setting: we observe the whole pool of applicants; this pool is much more homogeneous than in other refugee cases, and it is very similar to the natives. The timing of the refugee-targeted aid program is such that we can apply a differences-in-differences approach, and,

[8] The refugee-targeted government support programs were implemented in addition to the FRG's welfare and social security system at the time and were intended to compensate for the hardship of the refugee experience. The supports—including cash, eligibility for education allowance, job-search assistance, access to credit for businesses, and access to real estate loans—sought to improve the refugees' chances of economic and social integration.

when also using the native West Germans as a control group, a triple differences-in-differences approach. Additionally, we know the most important variables used by the authorities to select those eligible for aid and can control for them.

Our data is particularly well-suited for studying the effect of government aid on refugees. Using rich micro-census data collected in West Germany in 1971, we can identify refugees directly rather than relying on country of origin as an indicator of "likely refugees," as is typically done in this context.[9] In addition, we observe the whole pool of applicants. We know eligibility for government aid at the individual level, and we know the age and year of arrival in the FRG as well as a range of outcome variables in 1971.

For refugees migrating as young adults (age-at-migration: 15-24), we find that immediate eligibility for government aid significantly improved the likelihood that they completed a higher level of education by 1971. Each additional potential year of aid-eligibility increases the probability of graduating from university by 1.2 percentage points, making those at the 75th percentile of the treatment distribution 6 percentage points more like to graduate from university than those at the 25th percentile. This is a large effect: only 14.2 percent of West German men aged 20-50 in 1971 had graduated from university. In line with this effect on human capital accumulation, these refugees also had higher-status jobs in 1971 and higher net monthly incomes.

Interestingly, we find little evidence of an effect of targeted aid to refugees who arrived in West Germany as children (age-at-migration: 1-14). For these refugees, schooling was compulsory, so they were readily integrated in the new host country educational institutions, and they faced no trade-off between investing in human capital or start working right away.

Our results suggest that government spending makes a difference in situations where parents have very few resources at their disposal and, therefore, are highly liquidity constrained. If the children in those families are at ages in which they face trade-offs between investing in human capital and starting to work, government aid that alleviates the family's financial constraints leads those children to invest more in human capital, and, ultimately, be more successful in the labor market. We find this to be true even when parents are highly skilled and even in a system where education is tuition-free.

[9] See for example Borjas (2000), Cortes (2004), and LoPalo (2018).

We contribute to the surprisingly small literature on how welfare affects the success of refugees, much of which does not look at the effects of migrating as a child.[10] Andersen, Dustmann, and Landerso (2019) study a 2002 reform of social assistance in Denmark that cut refugee benefit levels up to 50 percent and changed the modalities of how social assistance is paid. While the authors find immediate increases in male employment, that fades over time, owing to the reform, the change reduced female labor force participation. In additional analyses on the "unintended" effects of the reform, they investigate how the reform affected children who became residents at different stages of childhood. Consistent with our results, they find that young adults (18-year-olds in their case) opt for contributing to family resources instead of investment in education when faced with the trade off.[11]

Finally, we should stress that our estimates capture the effects on the outcomes of aid eligibility rather than aid receipt. That is, we are estimating an intention-to-treat effect. We see this as the relevant policy measure, since policymakers may decide upon the offer of aid but not take-up. Moreover, the intention-to-treat effect is not confounded by potentially endogenous take-up of aid.

The paper is structured as follows: Section 2 explains the historical background; Section 3 describes the data, samples, and main variables; Section 4 presents the empirical framework and Section 5 includes the analyses and results. We conclude in Section 6.

2. Historical Background

2.1 General Background

[10] LoPalo (2019) analyzes the effects of cash aid paid to refugees as part of the United States' refugee resettlement program. She finds that cash aid increases wages for the employed but does not alter employment. The highly educated saw the largest wage effect.

[11] We also build on scholarship that analyzed the same historical setting that we use. The GDR refugees we focus on are the foundation of the social ties between East and West Germans analyzed by Burchardi and Hassan (2013) and Dorner et al. (2016) in the context of German reunification. Lüttinger (1986, 1989) provides a detailed descriptive comparison of native West Germans, people expelled from Central and Eastern Europe, and GDR refugees, finding that qualification levels and occupational status were higher among GDR refugees. Also related are studies on expellees from Central and Eastern European countries, groups that have received more attention in the economic literature than the GDR refugees. Falck, Helbich, and Link (2012) find that the expellees did worse in the labor market than West German natives, and Bauer, Braun, and Kvasnicka (2013) find that they experienced economic penalties (except for those who moved from agriculture into other sectors). Braun and Kvasnicka (2014) analyze the effect on sectoral change and productivity, while Braun and Mahmoud (2014) show that the influx of expellees decreased native employment in the short term. Note, however, that the influx of expellees from Central and Eastern European countries to West Germany was completed before 1950, whereas the influx of GDR refugees had its peak after 1950 and continued until the Berlin wall was built in 1961.

After the defeat of Nazi Germany in 1945, the Potsdam Treaty divided the remaining German territory west of the Oder-Neisse line into four occupation zones under the United States, the United Kingdom, France, and the Soviet Union. In 1949, the Soviet Occupation Zone in the east of Germany became the German Democratic Republic (GDR), organized as a communist state with a planned economy. The three other zones in the west became the Federal Republic of Germany (FRG), founded as a democracy with a market economy.

Even though there was no free movement between the different occupation zones, the authorities could not prevent the mass migration from the East to the West that we focus on in this paper. Between 1944 and 1961, at least 3.6 million refugees (*Flüchtlinge* or *Zuwanderer* in German) from East Germany are estimated to have arrived in West Germany.[12] This stream of East Germans to West Germany is depicted in Figure 1, together with the migration between East and West Germany until 2015. At the height of the outflow in 1954, for example, 400,000 East Germans fled to the West. The historical migration from East to West is even more important than the migration experience after the fall of the Berlin Wall in 1989.[13] To get a sense of the magnitude, the West German population was 39 million in 1939 (thus, the GDR refugees represented 9 percent of the West German population at the time) and the East German population was 17 million in 1939 (i.e. an estimated 21 percent of the East German population fled between 1944 and 1961).[14]

The historical literature names three main drivers that pushed people to flee the GDR (see, for example, Heidemeyer, 1994, and Van Melis, 2006). One group of refugees were regime opponents who fled for directly political reasons. These included members of the Protestant church youth organization, the so-called *Junge Gemeinde* (Young Parish), which was oppressed by the communist regime. These also include people forced to work in uranium mining or for the East German police.

A second driver was the centrally planned communist system's economic oppression and downgrading. Farmers and agricultural workers, for example, fled because of the expropriation and reorganization of their farms for use as agricultural production cooperatives, corresponding to

[12] This estimate is based on the Census of 1961. It excludes all expellees from Eastern Europe who moved to West Germany via the GDR. If Eastern European expellees who left the GDR between 1950 and 1961 (and likely did so because of the communist regime) are included, the estimated number of refugees increases to 4.5 million. (Authors' compilation is based on Heidemeyer 1994, pp. 43ff). Based on the 1971 census data we use, the estimated number of GDR refugees is about 3.4 million.

[13] Hunt (2006), Fuchs-Schündeln and Schündeln (2009), and Prantl and Spitz-Oener (2019) focus on East-West migration after 1989.

[14] These population figures refer to the territories of the later FRG and GDR, respectively; see Federal Statistical Office (1952, p. 12) and Governmental Central Office for Statistics (1955, p. 8).

Soviet *kolkhoz*. Expropriations also affected owners of industrial firms. Shopkeepers and self-employed skilled trades workers faced discriminatory taxation and restricted access to markets for inputs. The academic elite and technical specialists left because their children were blocked from higher education and from freely choosing their occupations.

More general circumstances, including shortages of goods and limited housing opportunities, prompted the third group of refugees to leave the GDR. Reunification with family members in the West was also a reason.[15]

From today's perspective, persons who left the GDR and moved to West Germany can, in large part, be viewed as refugees. Had the regime been a different one, they would have stayed. They felt forced to flee the GDR, escaping secretly and illegally, while leaving behind most of their belongings, their property, and their social network. They risked monetary penalties and imprisonment, and they exposed family members left behind to punishment. In addition, upon arrival in West Germany, GDR refugees were first confined to refugee camps, from which they were then allocated to the different West German regions (Kimmel, 2005, Van Melis, 2006, and Limbach, 2011). While during the years immediately following the war there were no common procedures for refugee management in the different occupation zones, over time the process became more and more harmonized and standardized across West Germany, with the Emergency Reception Procedures (*Notaufnahmegesetz*) becoming the FRG-wide legal basis beginning in September 1950, to June 1990. Figure 2 includes a schematic overview of the screening and examination process the Emergency Reception Procedures involved.[16]

Starting in 1952, the communist regime stepped up efforts to deter migration. It established a very effective 5-kilometer-wide exclusion zone along the more than 1,000-kilometer-long border between West and East Germany, which was heavily fortified and patrolled by armed police. As a result, refugees had to cross into West Berlin via train after 1952. Before being allocated to the different West German regions (and flown there by plane), they lived in a refugee camp in West

[15] GDR refugees also included a group of spies and criminals which, despite its small size, received considerable attention in the West German debate (ibid, see also Ackermann, 1995).

[16] All refugees were first hosted in refugee camps, rigorously interrogated by both West German authorities and by the Allies (represented in general by members of the different countries' intelligence institutions). The whole screening process took several weeks, and all refugees had to go through it. At the end, there was a committee with three members who took all stages of the screening process into account when summarizing the escape motives and making the decision about the legal status of the refugees. We are thus comparing two groups of people who – by fleeing the GDR – have both strongly indicated that they want to build a new life in West Germany permanently. That is, both groups had a strong incentive to be legally acknowledged, independently from the additional refugee-targeted aid. While the application for government aid was nominally voluntary, once refugees had gone through the screening process, it was largely a minor formality.

Berlin, where they were registered, examined and interrogated. In 1961, that final path to the West was ultimately blocked by the erection of the Berlin Wall (see, for example, Van Melis, 2006). Migration to West Germany was not possible again for 28 years, when the Berlin Wall fell and communism collapsed.

2.2 State of the West German Economy and the Welfare State

From the end of World War II through the beginning of the 1970s, West German society was shaped by two phenomena. The first was the exceptional GDP growth in the 1950s and 1960s. Between 1950 and 1960, annual GDP increased by 127 percent; between 1960 and 1970, it grew another 53 percent (Lampert and Althammer 2001, p. 88). West Germany was able to overcome the hardship of the immediate years after 1945 relatively fast so that increased real incomes were spread throughout the population and inflation rates were stable and moderate. By the end of the 1950s, West Germany had achieved full employment (Schulz 2005a, Löffler 2007). This implies that the socio-economic integration of GDR refugees in the 1950s and 1960s occurred against the backdrop of particularly favorable economic landscape.

The second phenomenon was the key societal challenge brought by unemployment, housing shortages, the mass in-migration of expellees and GDR refugees, and the re-integration of war victims. The policy response in the immediate years after the war included food stamps, massive investments in social housing programs and, as we explain in more detail in the next sections, programs targeting expellees and GDR refugees (Schulz 2005a, Löffler 2007).

West Germany was organized as a social market economy that combined liberal (but regulated) markets with a comprehensive welfare state supported by two pillars (Esping-Andersen 1990): the social security system and welfare benefits. The social security system includes mandatory health, accident, pension, and unemployment insurance schemes. Social security coverage is tied to employment and co-financed by employers and employees. Contributions are determined as a function of employees' wages, and benefits depend on prior contributions (Schulz 2005b). Welfare benefits, the second pillar, are paid to individuals or families in need who are otherwise uninsured and do not have sufficient personal financial means. Welfare benefits are funded through taxes and include a monthly allowance that covers basic needs. Although the monthly allowance previously existed, it became an enforceable right only in 1962, the same year that welfare benefits were

introduced for persons experiencing illness, depending on care, or facing other difficult circumstances (Boldorf 2007).

At that time, the male breadwinner model was the norm in West Germany and almost all men of working age worked. Married women—especially mothers—tended to be housewives who relied on their husbands' incomes. Female employment increased only gradually. Among married women below the age of 65, only 26 percent of women worked outside the home in 1950. By 1961, that figure rose to 37 percent; in 1970, it was 41 percent (Schulz 2005b, p. 43). With social security coverage tied to employment, West German housewives were disadvantaged.[17] To partially compensate for this gender inequality and to fight poverty among families with many children, child benefits were introduced in 1955.[18] These benefits came in tandem with income tax deductions for families (Münch 2005, 2007).

All refugees from the GDR had access to social security and welfare benefits, irrespective of legal status. In 1953, they were integrated into the West German health, accident, and pension insurance schemes and, in 1956, into the unemployment insurance scheme. They were also entitled to child benefits and family tax deductions (Nahm 1967, p. 8).

2.3 Criteria Determining GDR Refugees' Eligibility for Additional Benefits

Beyond the social security and welfare benefits, large-scale redistribution schemes were implemented in West Germany to partially compensate those who incurred losses during World War II. From the early 1950s through 1966, some 63 billion Deutsche Mark were redistributed under the Equalization of Burdens Act. This remains one of the biggest economic and financial transactions in German history, with roughly 25 percent of the 1966 GDP redistributed over about 15 years.[19] Funding came through designated taxes (Nahm 1967, p. 20; Abelshauser 2011, p. 335).

There was a broad political consensus that expellees from Eastern and Central Europe should benefit from the redistribution programs (Werber, Borde, and Ehrenforth 1954; Heidemeyer 1994). The question whether GDR refugees should also benefit sparked a major and controversial political

[17] Women and children are, however, entitled to health insurance through their husbands' or fathers' insurance. Within the pension insurance scheme, widows receive surviving dependents' pensions.
[18] Child benefits were paid per child from the third child onward and, after 1961, from the second child onward. From 1955 through 1965, the child benefits were raised multiple times. In principle, the benefits were designed at a flat-rate, but they were reduced for families with incomes exceeding a certain threshold. Initially, the child benefits were financed by employers and the self-employed. In later years, they were funded through taxes (Münch 2005, 2007).
[19] West German annual GDP in 1966 was 249 billion Deutsche Mark. The figures cited here are in 1966 prices.

debate. Until the Berlin Wall was built in 1961, the debate revolved around the question of whether East Germans were genuine refugees, as discussed before. In this context, influential members of the governing Christian Democratic Party opposed the inclusion of GDR refugees in the redistribution programs. Their underlying motive was to discourage further migration from East Germany, although program costs were also a consideration (Heidemeyer 1994, Ackermann 1995).[20]

In the end, only a subgroup of East German migrants was given status on par with the expellees and made eligible for financial and other aid that addressed their specific needs as refugees. And that was true only from 1953 forward. Those "political GDR refugees" received so-called "C-status" that was documented in their passports, and that is the legal background of the government aid we analyze here.[21] C-status was decided in refugee offices at the regional level. Refugees who migrated before 1953 could apply retroactively. Children were automatically assigned the same status as their parents (Werber et al. 1954, Ackermann 1995).

2.4 Benefits for Political GDR-Refugees

As noted earlier, GDR migrants who were acknowledged as political refugees became eligible for an additional set of governmental programs (Lüder 1957; for an overview see Appendix Table A.1), including cash benefits and access to loans. Lump-sum cash benefits were paid for the purchase of household goods and personal effects that might have been lost. A monthly cash allowance was extended to refugees and their relatives who wanted to complete a vocational qualification or university degree but lacked the financial means. Loans, meanwhile, were provided for the purchase of real estate used for private purposes and for professionals, farmers, and business owners who had lost their capital. Rent-controlled apartments were available through yet another program.[22] There also existed the possibility of a publicly subsidized job (Lüder 1957, Nahm 1967). Indeed, various measures were intended to boost the refugees' labor market integration. Among the target groups were farmers or agricultural workers (via affordable loans and cash benefits), the self-employed (via affordable loans, debt guarantees, co-partnerships, tax cuts, cash

[20] The parliamentary opposition, the Social Democrats, advocated a more liberal response to the refugee inflow but lacked the political power to put it into action.
[21] The specific law is the Federal Expellee Law *(Bundesvertriebenengesetz, BVFG)* of 1953.
[22] Two laws formed the basis for the benefits, the Hardship Fund of the Equalization of Burdens Act (*Lastenausgleichsgesetz, LAG*) and the Federal Expellee Law *(Bundesvertriebenengesetz, BVFG).* Until 1966, 2.5 billion Deutsche Mark were distributed under the Hardship Fund (Nahm 1967, p. 32).

benefits, and other privileges), and employees (via privileged treatment by employment agencies, privileged re-entry into previous occupations, and privileged access to apprenticeships).

In other words, the refugee-specific aid granted political refugees access to the social security and welfare system of the FRG while also making them eligible for additional programs that aimed to provide partial compensation for the losses they had incurred. Most components of the refugee-specific aid alleviated current needs and would not be characterized as direct investments in refugee children. However, there is one important exception: student allowances. Student allowances may allow young adults who face trade-offs between investing in human capital and starting to work to overcome the financial constraints that limit their ability to invest. Overall, and in contrast with children, young adults might be more vulnerable to an absence of refugee-specific government aid since, again, they are less naturally linked to the educational institutions of the host country. Economic necessity combined with a lack of government assistance may preclude these young adult refugees from pursuing higher education, which might have been beneficial for their long-term well-being.

Policymakers sought to improve the refugees' socio-economic status while moving toward equality of opportunities between refugees and West German natives (Werber et al. 1954, Heidemeyer 1994). Accordingly, eligibility for benefits ended once the individual recipients reached a sufficient degree of social and economic integration. East German migrants who were not acknowledged as political refugees were excluded from these comprehensive programs, although they still were eligible for the social insurance and welfare benefits available to the population broadly.

The additional benefits paid to political refugees were economically significant. For example, adolescents and young adults willing to tolerate modest living standards were able to be full-time university students or apprentices thanks to the monthly education or vocational training allowance (Gillner 1955).

2.5 West German Educational System

Primary, secondary, and tertiary education is generally free of charge in Germany, implying that there is no tuition. In the time span relevant to our study, compulsory schooling covered eight years in a system that had three school "tracks:" the lowest track that ended after eighth grade (and encompassed the majority of students), an intermediate track to which student switched after fourth

grade, and the college-bound Gymnasium track. In the early years of the Federal Republic of Germany, few students (3.3 percent in 1951) moved to the intermediate school track or to the highest school track, the Gymnasium, which qualified students for direct university admission. In 1959, the Gymnasium track was chosen by 9.7 percent of students; the fast majority attended the lowest school track. In the years that followed, enrollment in the intermediate and Gymnasium tracks rose (Schulz 2005a, p. 60).

As part of this general expansion in education, a national student-aid program was introduced in the winter term of 1957/58. Students with good academic records but without the financial means to attend university were paid a monthly education allowance so they could study. Half of the allowance was stipend-based, and half was financed through student loans (Anweiler 2005). In 1971, the year when our data were sampled, 14.2 percent of West German men aged 20 to 50 had obtained a university degree, 63.7 an apprenticeship degree, and 22.0 percent had no formal qualification. The corresponding shares for women are 7.8 percent (university graduates), 43.2 percent (women with completed apprenticeship training), and 49.0 percent (no formal qualification).[23]

3. Data, Sample, and Definition of Main Variables

3.1 Data

Our analysis is based on the Supplementary Microcensus of 1971, the so-called *Mikrozensuszusatzerhebung* (MZU 1971), conducted by the German Federal Statistical Office in April 1971. It is a 1 percent representative sample of the West German native population aged 15 and older, and its aim was to elicit information on economic and social transformations in post-war Germany. Respondents were required by law to participate in the survey (for a detailed description, see Tegtmeyer 1979).

For the purposes of our study, the MZU 1971 has three major advantages. First, these data contain information on a person's region of origin and population group, allowing us to identify refugees from the GDR. We also know their age at arrival and the year of arrival in the West, and we can see whether former GDR citizens were eligible for government aid. A second advantage of the data is its detailed parental background characteristics for refugees at age 15. This information, collected for all persons born in 1920 or later, includes the father's detailed occupational status (13

[23] Authors' estimates based on the data described in Section 3.

categories), the father's industry (16 categories), the father's education level (6 categories), and the mother's education level (6 categories).[24] They were the most important characteristics used in distinguishing political refugees from economic refugees. The third advantage is that the data provide detailed information on individuals' socio-economic outcomes in 1971. These variables refer to a person's education, employment, type of employment, and income. Overall, the MZU 1971 is an ideal data source for studying the impact of governmental support programs on child and young adult refugees' economic success.

The MZU 1971 has a clustered survey design. Throughout the analysis, we account for a potential dependence of observations within the same sampling units by clustering our standard errors accordingly.[25]

3.2 Sample

Our analysis focuses on refugees from East Germany who migrated to West Germany before the Berlin wall was built in 1961.[26] We begin with individuals migrating from 1946; bypassing 1945, which was marked by the turmoil and chaos of the end of the war. Our goal is an examination of outcomes that capture refugees' economic success in 1971. Since the male breadwinner model dominated in West Germany and women—especially mothers—dropped out of the labor force, there are clear gender differences in outcomes in 1971. Indeed, only 50 percent of East German women who migrated as young adults (at ages 15 to 24) and 55 percent of women who migrated

[24] The survey also includes mothers' occupational status and industry at age 15. However, in many cases mothers dropped out of the labor force and this information is either missing or not very meaningful. Therefore, we focus on fathers' occupational status and industry. The occupational status variable is influenced by Max Weber's concept of social stratification (Lüttinger 1989, p. 73). On the one hand, the variable divides occupational status into horizontal categories (for example, by distinguishing among the self-employed, the employed, civil servants, workers, etc.). On the other hand, the variable elicits status differences within these categories (for example, by distinguishing among low, medium, and high-level civil employees). Because this status variable is crucial for our analysis, our main sample excludes 5,545 East German refugees for which the father's occupation status was missing. We return to this restriction later when we assess the robustness of our results.

[25] In the first sampling stage, 10 percent of all sampling districts were randomly selected. In the second stage, 10 percent of the population aged 15 and older was randomly selected within the sampled districts. Since sampling districts were relatively small, there are several hundred clusters (for details see Schimpl-Neimanns, 2016).

[26] We exclude former expellees from Eastern European territories who arrived in West Germany via East Germany. These former expellees form a distinct group that was forced to migrate twice and, hence, was entitled to more governmental support programs than East German refugees who migrated only once. By only including persons living at their main residence, we also impose restrictions that make our sample representative. Furthermore, we exclude observations classified as supplemental and duplicated observations (for details see Schimpl-Neimanns, 2016).

as children (at ages 1 to 15) were employed in 1971 (Table1).[27] Because of these differences, we present results separately for men and women.

Since the economic success of migrants likely depends on the age at which a refugee arrives in the country of destination, we additionally focus our analysis on two main samples. The sample definitions and the historical timeline are summarized in Figure 3. We call our samples the **children sample** and the **youth sample (=young adults)**. The children sample consists of refugees who arrived in West Germany at ages 1 to 14, at an age in which they were subject to compulsory school attendance.[28]Therefore, the children sample comprises first generation migrants who arrived in the destination country before they left high school. We exclude those who arrived below age 1 to ensure that they were born in the GDR and did in fact flee.

The youth sample, meanwhile, includes refugees who migrated between the ages 15 to 24 and, because of their age at arrival in West Germany, were not required to attend school. They had to decide whether to continue going to school, pursue an apprenticeship degree, attend university, or immediately search for a job. In this sense, their integration in the host-country was distinct from the integration of their counterparts from the children sample.

Finally, we show results for the refugees who reflect the "parent" generation, i.e. refugees who migrated at ages 25-51 (the **adult sample**). This is instructive to indicate that our main findings are not the result of potential selection effects that our identification strategy is unable to capture.

3.3 Outcome Variables

To capture medium-term outcomes of refugee children and young adults in 1971, we focus on two sets of outcome variables. First, we examine variables capturing educational attainment; as described earlier, the education allowance was a significant component of the refugee aid program targeting refugees migrating at young ages. Specifically, we assess how refugee-specific aid impacted the likelihood of obtaining a high qualification (i.e., graduating from university), a medium qualification (i.e., completing an apprenticeship training degree), or a low qualification (i.e., not obtaining a formal qualification).

Second, we also look at employment outcomes, including an indicator variable for being employed and a variable capturing job quality. The latter is an indicator variable if a person is

[27] One consequence of the low female employment rates was that significant shares of women did not report important economic indicators like their income.

[28] School was mandatory through eighth grade, when students were typically 15 years old.

employed as a high-level civil servant, high-level employee, or elite worker (i.e., a worker with managerial responsibilities). Finally, we assess home ownership as well as individuals' total monthly net income from all income sources, which are proxy variables for socio-economic status.

In Table 1, we report summary statistics for our sample and separately by gender. About 41 percent of our overall sample belongs to the youth sample and about 30 percent to the children sample. In both these samples, females account for close to 50 percent of the observations, whereas women account for about 60 percent in the adult sample. Among refugees arriving as young adults (children), 21 (34) percent of males were eligible for government aid compared to 18 (25) percent of females. The average age of the children sample is 26 in 1971 and 38 for the youth sample. Table 1 also displays summary statistics of the outcome variables that we analyze in the following section.

4. Empirical Specifications and Identification Strategy

4.1 Main specification

We are interested in the causal effect of aid-eligibility on refugee children and young adults' economic success later in life. Effect identification is complicated by the fact that those eligible for aid are both self-selected and screened by the local authorities. We therefore combine three strategies. First, we restrict our focus to GDR refugees who all applied to be legally acknowledged, so when we compare those who applied and were successfully with those who weren't, we are able to "difference out" the effect of fleeing the GDR, as both treatment and control groups did. Then, applicants were thoroughly screened, in a specific refugee screening process that involved West German authorities and those of the Allied countries. When comparing GDR refugees eligible for aid and their non-eligible applicant counterparts, we are able to control for the most important characteristics that the local authorities used to select aid-eligible persons from the pool of applicants, namely detailed parental background characteristics. This allows us to reduce the selection bias introduced by the screening process of the authorities.

We also take advantage of the fact that the refugee-targeted aid was only available after 1953. This generates an additional source of variation in exposure to aid. Indeed, those aid-eligible refugees who arrived in 1953 and later became eligible for aid immediately after their arrival in West Germany and at a younger average age. In contrast, those arriving before 1953 became aid-eligible only ex post and at an older average age, when important decisions concerning integration had already been taken. The a priori expectation is thus that any positive effects of aid eligibility are more pronounced for the group arriving in 1953 and after.

Third, we use a second comparison group that the specific historical context provides us, namely the native West Germans. We do so employing inverse probability weighting where we assign weights to the observations in the West German sample. A within-GDR refugee comparison between aid-eligible and non-eligible individuals hinges on the assumption that systematic differences between the two groups are constant over time. However, during the time-period that we study, West Germany underwent rapid economic growth and structural changes, including for example a shift in employment away from agriculture towards industry.[29] As explained earlier, our treatment group of aid-eligible refugees and our control group of non-eligible refugees differ in the sectoral composition of employment, and therefore might be differentially affected by those structural changes. Introducing native West Germans using a triple differences-in-differences allows us to remove such potentially confounding trends. Additionally, it allows us to assess how the offspring of refugees overall fared in 1971 relative to comparable native West Germans.

Against this background, our empirical specification is as follows:

$$(1) \quad Y_i = \gamma_0 + \gamma_1 GDR_i + \gamma_2 AID_i + \gamma_3 T_i + \gamma_4 AID_i * T_i + \gamma_5 X_i^{basic} + \gamma_6 X_i^{par} + \varphi_i.$$

Y_i captures medium-term economic outcomes of refugees measured in 1971 such as education outcomes, employment outcomes, home ownership and income. As discussed earlier, because age-at-arrival determines the integration of young refugees into the West German education system, we separately estimate equation (1) for two different groups of GDR refugees, those arriving as children (at ages 1 to 14) and those arriving as young adults (at ages 15 to 24).

The variable GDR_i is equal to one for refugees from East Germany, and zero for native West Germans. The variable AID_i is a dummy variable indicating refugees' eligibility for government aid at any point after arrival, T_i is a dummy variable for having arrived in West Germany in 1953, or later, and $AID_i * T_i$ is an interaction term indicating GDR refugees who were eligible for aid and arrived in 1953, or thereafter.

The coefficient γ_1 represents the mean differences in Y_i between East German refugees and native West Germans. γ_1 can thus be interpreted as an indication of the degree of the overall socio-

[29] Bauer et al. (2013), for example, find that the offspring of expellees who were farmers improved their socio-economic status more than the offspring of other expellee groups. For related results for Finland, see Sarvimäki et al. 2019.

economic integration of GDR refugees who arrived as kids or young adults vis-à-vis- their West German counterparts. γ_2 captures the mean difference in outcomes between aid-eligible refugees and non-eligible refugees, γ_3 indicates the mean difference in outcomes for those refugees who arrived in West Germany in 1953 or thereafter and those who arrived before 1953. Finally, γ_4 reflects the mean difference in outcomes for aid-eligible refugees who arrived after 1953 (the difference-in-difference-in-differences estimate).

This specification reflects the basic institutional details of the government aid program that we analyze. The program was introduced in 1953, which rationalizes the separation of those who arrived before 1953, and those who arrived thereafter. At the same time, refugees who arrived before 1953 and who were acknowledged as legal refugees were eligible for aid, that is AID_i has values of one for refugees arriving between 1946 and 1961. Note as well that those who arrived before 1953 went through the recognition process without knowing that the refugee-specific aid program will eventually be introduced.

Conceptionally, we differentiate the effects of those who became aid eligible immediately after arrival (T_i=1), from those who arrived in the same "age-at-arrival" range but became eligible later (i.e. when they were older, T_i=0). For example, refugee children who were below 15 at arrival in West Germany and arrived before 1953 were on average 11.8 years old in 1953, when the refugee-targeted aid was introduced. The counterpart of children who were also below 15 at arrival, but arrived in 1953, or later, were 4.2 years old on average when their parents became eligible for the refugee-specific aid (note that the average age at arrival for children who arrived below the age of 15, was 7.6 for both those who arrive before 1953 and those who arrived thereafter).

Analogously, young adults who were between 15 and 24 at arrival and arrived before 1953 were on average 24.3 years old in 1953, when the refugee-targeted aid was introduced, whereas those who arrived in 1953, or later, were on average 19.9 years old when they became eligible (even though those who arrived before 1953 and those who arrived thereafter were about 20 years old, on average).

In the basic specification, we address the age difference in two ways. First, the inclusion of T_i captures level differences in the outcome variable between the early and late arrivals and picks up unobserved and time-invariant heterogeneity between the two groups (γ_3). γ_4 captures differences in outcomes that arise because of differences in age when refugees became eligible for aid, and differences related to whether they became eligible immediately after arrival or merely ex post. We

further take the age difference into account by controlling for the age of individuals in 1971. Specifically, X_i^{basic} includes age in 1971 and its square.[30]

X_i^{par} includes the refugees' parents background characteristics, the most important observable characteristics that the West German authorities used to screen the refugees, which allow us to reduce selection bias introduced by the screening process of the authorities. As described earlier, they focused on background characteristics of the adults in a family as those were the characteristics that the GDR regime used to identify potential "class enemies". Thus, both East and West German authorities used the same "profiling" characteristics to predict likely political refugees (who became eligible for government aid) as opposed to likely economic refugee (who did not become eligible for government aid). The advantage of our data is that we observe parental background characteristics when the refugee children and young adults were 15 years old, among them the father's occupational status (13 categories), father's industry (16 categories), and father and mother's qualification levels (6 categories, respectively). Of course, those characteristics are important control variables by themselves, given our outcome variables. For the young adult sample, the information on industry and occupational status reflects what the parents were doing in the GDR, whereas for the children sample, the information revers to what parents were doing in the FRG.

In our main specification, we treat AID_i as a dummy variable. But the institutional set up of our experiment allows us to go one step further and use differences in treatment dose as the identifying variation. The coefficient on the dummy variable specification represents a weighted average of the per-unit causal effect along the length of the causal response function. Indeed, there is large variation in the number of potential years of aid-eligibility, which we exploit in an additional specification.

When constructing the treatment dose measure, we create a variable capturing potential years of exposure (EXP_i) and estimate equation (1) above, but replace AID_i by EXP_i. Specifically, EXP_i is defined as follows:

[30] Note that we also used specifications that include age-dummies. Our results are robust to this change in specification.

$$EXP_i = \begin{cases} 0 & if\ AID_i = 0 \\ 1971 - yearmigr_i & if\ AID_i = 1\ and\ \ yearmigr_i > 1953 \\ 1971 - 1953 & if\ AID_i = 1\ and\ \ yearmigr_i \leq 1953 \end{cases}$$

That is, for those who are not eligible, EXP_i is still zero. However, for those who arrived after the introduction of the refugee-targeted government aid in 1953, the potential number of years of eligibility is 1971 (the year of the survey and in which we measure our outcomes) minus the year of arrival (*yearmigr*$_i$) in West Germany. For those who arrived before 1953, aid-eligibility only started after 1953 when they had already lived in West Germany for a couple of years and were older compared to their age-at-arrival cohort that arrived in 1953, or later (see the example above when we discuss the role of T_i). While aid-eligibility did not start for this group immediately after arrival in West Germany, it potentially lasted for 18 years, from 1953 to 1971.

Overall, we find considerable variation in treatment dose. As Table 1 shows, in the children sample, the average potential years of exposure is 5.3 (std. dev. 7.7) for males and 3.9 (std. dev. 6.9) for females; in the young adult sample, it is 3.2 (std. dev. 6.4) for males and 2.7 (std. dev. 6.0) for females. Table 2 shows further details of this variable for males, both unconditionally (A) and conditionally on aid-eligibility (B). As is clear from those statistics, those who arrived earlier had more years of potential aid-eligibility but became eligible when they were older.[31]

4.2 Balancing Tests

We first examine whether there are systematic differences between GDR refugees across age-at-arrival and year of arrival. To do so, we show empirical evidence that suggests that there is no systematic difference between the key observable characteristics of those who arrived before 1953—when neither the refugees nor people involved in the screening process knew that the refugee-targeted government aid program would be introduced—and those who arrived in 1953 or later.

In terms of age-at-arrival, one concern might be that refugee families tried to manipulate their aid eligibility status or that the authorities who screened the refugee families systematically treated families with kids in certain age ranges differently; perhaps, because the access to student allowances was important at the time for the family. Had there been strategic sorting based on age

[31] The statistics look very similar for females and can be obtained from the authors upon request.

at arrival, we would expect to observe changes in age at arrival by refugee status and over time. This is clearly not the case. Table 3 shows mean age at arrival for both the children and youth samples. Furthermore, we distinguish between "before 1953", the time before the refugee-specific aid was implemented and before invested parties new about it, and 1953 onward. For male refugees of the children sample who received aid, the mean age at arrival before 1953 was 7.6 years (column 1(A)). It was virtually the same—7.7 years—for those arriving in 1953 and later. Moreover, the age of arrival for those not receiving aid was not statistically different (columns 2, 3, and 4 (A)). The same applies to male refugees arriving as young adults. Before 1953, the mean age at arrival for those receiving aid was 19.8 (column 5(A)), while it was 19.9 from 1953 onward. Again, the mean age at arrival for those not receiving aid was not statistically different (column 6, 7, and 8 (A)). There is no evidence for strategic sorting into aid based on the age of female refugee children and young adults, either, as shown in the analogous columns for females in Panel B.

Similarly, we assess whether from 1953 onward there was strategic sorting into the program based on fathers' educational attainment. One concern might be that highly educated families were more likely to select or be screened into aid eligibility, as the children of these families planned to attend university. Moving through the table in the same way as we did for "age at arrival", there are no such systematic differences for the group of male refugees. Only one difference is statistically significant at the 10 percent level: Fathers of refugee children who were aid-eligible and arrived before 1953 were more likely to have no formal qualification level, suggesting that, if anything, there was negative selection into aid-eligibility based on fathers' educational attainment. Estimates for the sample of aid eligible women, however, suggest that their fathers were somewhat more likely to have a high qualification level. Yet as we see below, this was not associated with better socio-economic outcomes for their daughters.

We also provide balancing tests based on the occupational status of the father, separately for men (Table 4) and women (Table 5).[32] The comparison yields two insights. First, in line with our expectations, there are systematic differences between aid eligible and non-eligible refugees. The fathers of aid eligible refugees are on average more likely to have worked as farmers, self-employed, and high-level civil servants. Conversely, the fathers of aid eligible refugees are underrepresented among the "worker" and "qualified worker"-categories. Second, these patterns are not necessarily constant between refugees arriving before and after 1953. Especially with regard

[32] Note again that this information reflects the industry/occupation in which parents worked when respondents were 15 years old, that is, the "parents" of the children sample were already in the FRG.

to self-employed fathers, the difference by aid eligibility are more pronounced for the refugees arriving in later years. This is consistent with the fact that the oppression of craftsman and certain professional persons such as doctors and lawyers intensified after 1957 in the GDR (see Van Melis, 2006). The two insights thus show the importance of controlling for fathers' detailed occupational status and industry as well as for arrival before and after 1953 as part of our triple DID strategy.

As already mentioned, we use inverse-probability weighting in our triple differences-in-differences estimations. Table 6 shows a detailed comparison of GDR refugees with native West Germans both before inverse-probability weighting and thereafter.

5. Results

5.1 Results for Men

Table 7 displays the effect of refugee-specific government aid for men. Each column refers to a different outcome variable and the effects are estimated separately for our three samples as defined by age of arrival (i.e., the youth, children, and adult samples). The table shows that refugee-specific aid had economically and statistically significant positive effects on the educational attainment and labor market integration of men who arrived as young adults. These effects are driven by aid-eligible refugees who arrived in 1953 and later, indicating that it was decisive that they received the aid immediately upon arrival in West Germany.

Aid-eligibility increased the likelihood of obtaining a high-qualification by 16.0 percentage points for male individuals belonging to the youth sample who arrived in 1953 and later (column (1) in Table 7). In line with this strong effect on educational attainment, the same group was 17.1 more likely to have a high-status job in 1971 (column (5)) and their net monthly incomes were 12.8 percent higher on average (column (7)).[33] In contrast, there are no positive effects among male refugees who arrived as young adults before 1953 and only became eligible for aid after they had lived in West Germany for some time.

The positive effect on the educational attainment and labor market integration on men who arrived as young adults are estimated controlling for detailed parental background characteristics, exploiting variation in the exposure to aid, and relying on West German natives as an additional control group to purge the estimated coefficients of time-trends induced, for example, by structural changes in the labor market. However, one might be concerned that the estimated effects are caused

[33] Note that we find no effects on the probability of being employed (column (4)), which results from the fact that almost all men in the youth sample – 98 percent – were employed at the time, regardless of aid eligibility (Table 1).

by self-selection into aid eligibility that our identification strategy is not able to capture. To address this question, it is useful to look at the sample of adults (see again Table 7). These adults arrived in West Germany at an age when their educational attainment had already been pre-determined. While they were on average more educated than the West Germans, those GDR refugee "parents" who were aid-eligible and arrived before 1953 had a higher probability of having medium education, while those arriving in 1953, or later, had the higher probability of being low educated. Therefore, the aid eligible adult migrants who arrived after 1953 were, if anything, negatively selected in terms of their qualification. In addition, for the aid eligible adults, there are no statistically significantly differences with regard to the likelihood of having a high qualification, a high status job, and a higher income. This is reassuring as it suggests that the results discussed previously for the youth sample are not driven by a general tendency of refugees with more favorable characteristics to self-select into aid eligibility.

We do find statistically significant differences with regard to homeownership. GDR refugees of the "parent" generation are less likely than Native West Germans to own a home, this is less pronounced for those who were aid-eligible and arrived before 1953, and more pronounced for those who arrived thereafter.

We next turn to the sample of men who arrived in West Germany as children, when they were still subject to compulsory schooling. Interestingly, we find that eligibility for aid did not have any positive effects for this sample. This implies that until 1971 those not eligible for aid were able to catch up with their aid-eligible counterparts; aid-eligibility had no meaningful impact on their later integration in the labor market.

5.2 Results for Women

Table 8 shows the same analyses for women, introducing the probability of being married and the number of children as additional outcome variables capturing family structures. The results reveal that aid-eligibility had no effect on women's outcomes. In fact, none of the coefficients discussed previously for men are statistically significant. Why is this the case? An explanation rationalizing the absence of positive treatment effects for women is that the West German labor market in 1971 was shaped by the male-breadwinner model, with women having a low attachment to the labor market. Only roughly half of the women in our three age-at-arrival samples were employed in 1971. Additionally, more than 40 percent of these women had not completed at least a vocational degree, a share that was significantly lower for their male counterparts (e.g., only 17

percent of men in our youth sample were in the same category; see Table 1). The low overall labor force attachment seems to have implied that aid eligibility made no difference for the educational attainment and labor market integration of female GDR refugees.

5.3 Robustness Checks

We have conducted a number of tests to check the robustness of our conclusions. In our main samples, we dropped respondents who did not report their fathers' occupational status. To assess how this impacts our findings, we replicated our analysis and re-estimated equation (2). This time we included all individuals and captured missing occupational status of the fathers by incorporating an additional category in our regression analysis.

In addition, and because the share of AID-eligible refugees increased after 1957, we test the robustness of our results to restricting the sample to the period 1946-1957, instead of 1946-1961 that we use in the main sample. The results for both exercises are similar to those presented earlier.[34]

5.4 Interpretation

The divergent results for the two samples are noteworthy. Why do we find positive and economically significant effects for the youth sample but reach very different conclusions for the children sample? Upon arrival in West Germany, refugees and their families had few resources at hand. They were also liquidity constrained. That meant refugees arriving as young adults had to consider whether to enter the labor force and immediately earn money. Our results indicate that refugee-specific aid made a decisive difference. It enabled young adults to postpone their entry into the labor market and, instead, pursue higher education. In the medium-term, this higher education was associated with working in a higher-status job and having higher monthly incomes. Importantly, male young adults who migrated in 1953 or later drive these results. This indicates that the aid was only effective for refugees who received it immediately upon their arrival.

For younger male children arriving in West Germany, the economic incentives were different. Not only were these refugees too young to start working immediately, but it appears that time spent in the destination country allowed those not eligible for aid to catch up with their aid eligible counterparts. Presumably, this catch-up process was smoothed by the general expansion of

[34] Results are available from the authors.

higher education and the exceptional period of economic growth that West Germany experienced. We would like to emphasize that we do not view our results as evidence that aid for young children would be ineffective in general. After all, in the German context that we analyze, all refugees and their children were covered by social security and had access to tuition-free education (Section 2). However, the results demonstrate that refugees migrating as children and young adults face different challenges which play an important role in shaping medium-term outcomes and deserve the attention of policy makers.

Finally, we do not find any significant effects for women. The West German society and labor market of the 1970s was characterized by strong gender disparities. Almost all men of working age were employed, whereas women's labor market attachment was much weaker on average and they tended to become housewives once they had their first child. Accordingly, only about half of the women in our sample worked in 1971, and they had a significantly higher likelihood than men to lack a formal qualification. Against this backdrop, our results indicate that aid eligible women did not take up the education grants and hence did not advance their socio-economic integration in the same way male young adults did.

6. Conclusions

This paper examines whether refugees' economic success is linked to government aid. We investigate the impact on refugees who migrated as children (at ages 1 to 14) and on refugees who migrated as young adults (at ages 15 to 24) and assess medium-term outcomes (i.e., at least 10 years after migrations). The analysis focuses on GDR refugees who migrated to West Germany from the end of World War II until the Berlin Wall was built in 1961. We exploit the fact that West German authorities distinguished between political and economic refugees from the GDR, providing aid only to political refugees. Receipt of this refugee-specific aid, which was meant to compensate for the losses stemming from the refugee experience, did not affect refugees' ability to also receive standard welfare and social security benefits in West Germany. The quasi-experimental nature of this historical setting allows us to combine several approaches to address identification concerns.

Refugee-specific aid engendered positive and economically meaningful effects for male refugees migrating as young adults. For refugees who migrated as children, we find no similar positive effects of the refugee-specific aid on education, employment outcomes, and incomes.

We conclude that age-at-arrival and the institutional link to the host country is important. Refugees migrating as children are able to catch up with their counterparts who were aid-eligible. This catch-up process, presumably, is related to their natural integration in the host countries education institutions through compulsory schooling laws, the general expansion of higher education and the exceptional period of economic growth that West Germany underwent during the period we study. In contrast, refugees migrating as young adults were more vulnerable to a lack of immediate refugee-specific aid. Faced with the trade-off between entering the labor market and earning income right away or investing in education, those young adults who were not eligible for refugee-specific aid bypassed investments in education—not surprising, given their and their families' severe liquidity constraints. This finding suggests that policymakers need to consider the specific needs of young refugees who are above the compulsory schooling age.

References

Aizer, Anna, Shari Eli, Joseph Ferrie and Adriana Lleras-Muney *(*2016). The Long-Run Impact of Cash Transfers to Poor Families. *American Economic Review,* 106 (4): 935-71.

Andersen, Lars Højsgaard, Christian Dustmann and Rasmus Landersø (2019). Lowering Welfare Benefits: Intended and Unintended Consequences for Migrants and their Families. CReAM Discussion Paper Series 1905, Centre for Research and Analysis of Migration (CReAM), Department of Economics, University College London.

Abelshauser, Werner (2011). Deutsche Wirtschaftsgeschichte, Von 1945 bis zur Gegenwart. München: C.H. Beck.

Ackermann, Volker (1995). *Der „echte" Flüchtling - Deutsche Vertriebene und Flüchtlinge aus der DDR 1945-1961*. Osnabrück: Universitätsverlag Rasch.

Althammer, Jörg and Heinz Lampert (2001), Lehrbuch der Sozialpolitik. Berlin-Heidelberg-New York: Springer.

Anweiler, Oskar (2005), Bildungspolitik, in: Ministry of Labour and Social Affairs and the Federal Archive (Eds), Geschichte der Sozialpolitik in Deutschland seit 1945, Band 3: Bundesrepublik Deutschland 1949-1957, Baden Baden: Nomos, pp. 653-686.

Bauer, Thomas, Sebastian Braun, and Michael Kvasnicka (2013). The Economic Integration of Forced Migrants: Evidence for Post-War Germany. *The Economic Journal* 123(571), 889-1024.

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

Becker, Sascha O., Irena Grosfeld, Pauline Grosjean, Nico Voigtländer and Ekaterina Zhuravskaya. Forced Migration and Human Capital: Evidence from Post-WWII Population Transfers. The *American Economic Review,* forthcoming.

Bleakley, Hoyt, and Aimee Chin (2010). Age at Arrival, Engish Proficiency, and Social Assimilation among US Immigrants. *American Economic Journal: Applied Economics*, 2(1): 165-92.

Boldorf, Marcel (2007), Sozialpolitische Denk- und Handlungsfelder, in: Ministry of Labour and Social Affairs and the Federal Archive (Eds), Geschichte der Sozialpolitik in Deutschland seit 1945, Band 4: Bundesrepublik Deutschland 1957-1966, Baden Baden: Nomos, pp. 85-150.

Borjas, George J. (2000). Ethnic enclaves and assimilation. *Swedish Economic Policy Review*, 7: 89–122.

Braun, Sebastian and Toman Omar Mahmoud (2014). The Employment Effects of Immigration: Evidence from the Mass Arrival of German Expellees in Postwar Germany. *Journal of Economic History* 74(1), 69-109.

Braun, Sebastian and Michael Kvasnicka (2014). Immigration and Structural Change: Evidence from post-war Germany, *Journal of International Economics* 93(2), 253-269.

Burchardi, Konrad and Tarek Hassan (2013). The Economic Impact of Social Ties. *Quarterly Journal of Economics* 128(3). 1219-1271.

Cameron, Colin and Pravin Trivedi (2010). *Microeconometrics Using Stata.* College Station, Texas: Stata Press.

Chetty, Raj, John N. Friedman, and Jonah Rockoff (2011). New evidence on the long-term impacts of tax credits. *IRS Statistics of Income White Paper.*

Chetty, Ray and Nathaniel Hendren (2018). The Impacts of Neighborhoods on Intergenerational Mobility I: Childhood Exposure Effects. *Quarterly Journal of Economics.* 133(3), 1107-1162.

Chetty, Raj, Nathaniel Hendren, and Lawrence Katz (2016). The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment. *American Economic Review*, 106(4), 855-902.

Cortes, Kalena E. (2004). Are refugees different from economic immigrants? Some empirical evidence on the heterogeneity of immigrant groups in the United States. *Review of Economics and Statistics*, 86(2): 465–480.

Dahl, Gordon and Lance Lochner (2012). The Impact of Family Income on Child Achievement: Evidence from the Earned Income Tax Credit, *American Economic Review,* 102(5), 1927-1956.

Damm, Anna Piil (2009). Ethnic Enclaves and Immigrant Labor Market Outcomes: Quasi-Experimental Evidence. *Journal of Labor Economics.* 27(2), 281-314.

Dustmann, Christian, Francesco Fasani, Tommaso Frattini, Luigi Minale and Uta Schönberg (2017). On the economics and politics of refugee migration. *Economic policy*, 32(91), 497-550

Deaton, Angus (1997). *The Analysis of Household Surveys.* Baltimore: The Johns Hopkins University Press.

Del Boca, Daniela, Christopher Flinn, and Matthew Wiswall (2016), Transfers to Households with Children and Child Development, *The Economic Journal*, 126(596), 136-183.

Dorner, Matthias, Dietmar Harhoff, Tina Hinz, Karin Hoisl, and Stefan Bender (2016). Social Ties for Labor Market Access – Lessons from the migration of East German Inventors, IAB-Discussion Paper 41/2016.

Edin, Per-Anders, Peter Fredriksson, and Olof Åslund (2003). Ethnic Enclaves and the Economic Success of Immigrants - Evidence from a Natural Experiment. *Quarterly Journal of Economics,* 118(1), 329-357.

Esping-Andersen, Gøsta (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Polity Press.

Falck, Oliver, Stephan Heblich, and Susanne Link (2012). Forced Migration and the Effects of an Integration Policy in Post-WWII Germany. *The B.E. Journal of Economic Analysis & Policy*, 12(1). 1935-1682.

Federal Statistical Office (1952). *Statististisches Jahrbuch für die Bundesrepublik Deutschland*. Stuttgart: Verlag W. Kohlhammer.

Fuchs-Schündeln, Nicola and Matthias Schündeln (2009). Who Stays, Who Goes, and Who Returns? East-West Migration within Germany since Reunification. ***Economics of Transition*** 17(3). 703-738.

Gillner, Karl (1955). Beihilfen zur Ausbildung für jugendliche Flüchtlinge aus der sowjetischen Besatzungszone. *Flüchtlingsberater*, Bundesminister für Vertriebene, Flüchtlinge und Kriegsgeschadigte, Heft 1. 7-14.

Government Central Office for Statistics (1955). *Statistisches Jahrbuch der Deutschen Demokratischen Republik*. Berlin (East): Staatsverlag der Deutschen Demokratischen Republik.

Heidemeyer, Helge (1994). *Flucht und Zuwanderung aus der SBZ/DDR 1945/1949-1961*. Düsseldorf: Droste Verlag.

Hoynes, Hilary, Diane Whitmore Schanzenbach and Douglas Almond (2016). Long-run impacts of childhood access to the safety net. *American Economic Review*, 106(4), 903-34.

Hoynes, Hilary and Diane Whitmore Schanzenbach (2018). Safety net investments in children (No. w24594). National Bureau of Economic Research.

Hunt, Jennifer (2006). Staunching Emigration from East Germany: Age and the Determinants of Migration. *Journal of the European Economic Association* 4 (5), 1014-1037.

Kimmel, Elke (2005). Das Notaufnahmeverfahren. In Bettina Effner and Helge Heidemeyer (Eds.), *Flucht im geteilten Deutschland*, pp. 115-134. Berlin: Bebra Verlag.

Limbach, Eric H. (2011). Unsettled Germans: The Reception and resettlement of East German refugees in West Germany, 1949-1961, Michigan State University, Dissertation, https://d.lib.msu.edu/etd/1605, downloaded on October 16, 2018.

Löffler, Bernhard (2007), Rahmenbedingungen, in: Ministry of Labour and Social Affairs and the Federal Archive (Eds), Geschichte der Sozialpolitik in Deutschland seit 1945, Band 4: Bundesrepublik Deutschland 1957-1966, Baden Baden: Nomos, pp. 1-84.

LoPalo, Melissa (2019). The effects of cash assistance on refugee outcomes. *Journal of Public Economics*, 170, 27-52.

Løken, Katrine V., Kjell Erik Lommerud and Katrine Holm Reiso (2018). Single mothers and their children: Evaluating a work-encouraging welfare reform. *Journal of Public Economics*, 167, 1-20.

Lüder, Rudolf (1957). Die Rechte und Vergünstigungen aus dem Flüchtlingsausweis C. *Der Fachberater*, Bundesminister für Vertriebene, Flüchtlinge und Kriegsgeschädigte, Heft 12. 353-360.

Lüttinger, Paul (1986). Der Mythos der schnellen Integration. *Zeitschrift für Soziologie* 15(1), 20-36.

Lüttinger, Paul (1989). *Integration der Vertriebenen.* Frankfurt/Main, New York: Campus Verlag.

Mayer, Susan and Leonard Lopoo (2008), Government Spending and Intergenerational Mobility, 92(1-2), 139-158.

Münch, Ursula (2007), Familien-, Jugend- und Altenpolitik, in: Ministry of Labour and Social Affairs and the Federal Archive (Eds), Geschichte der Sozialpolitik in Deutschland seit 1945, Band 4: Bundesrepublik Deutschland 1957-1966, Baden Baden: Nomos, pp. 549-610.

Münch, Ursula (2005), Familien-, Jugend- und Altenpolitik, in: Ministry of Labour and Social Affairs and the Federal Archive (Eds), Geschichte der Sozialpolitik in Deutschland seit 1945, Band 3: Bundesrepublik Deutschland 1949-1957, Baden Baden: Nomos, pp. 597-652.

Nahm, Peter (1961). *Der Lastenausgleich*. Stuttgart: Verlag W. Kohlhammer.

Prantl, Susanne and Alexandra Spitz-Oener (2019). The Impact of Immigration on Competing Natives' Wages: Evidence from German Reunification, *Review of Economics and Statistics*, accepted for publication.

Sarvimäki, Matti, Roope Uusitalo, and Markus Jäntti (2019). Habit formation and the misallocation of labor: evidence from forced migrations. Available at SSRN 3361356.

Schimpl-Neimanns, Bernhard (2016). Mikrozensus Zusatzerhebung „berufliche und soziale Umschichtung der Bevölkerung“, April 1971 — Revision der Ordnungsnummern und Hinweise zur Hochrechnung. Mimeo, GESIS.

Schulz, Günther (2005a), Rahmenbedingungen, in: Ministry of Labour and Social Affairs and the Federal Archive (Eds), Geschichte der Sozialpolitik in Deutschland seit 1945, Band 3: Bundesrepublik Deutschland 1949-1957, Baden Baden: Nomos, pp. 1-72.

Schulz, Günther (2005b), Sozialpolitische Denk- und Handlungsfelder, in: Ministry of Labour and Social Affairs and the Federal Archive (Eds), Geschichte der Sozialpolitik in Deutschland seit 1945, Band 3: Bundesrepublik Deutschland 1949-1957, Baden Baden: Nomos, pp. 73-178.

Tegtmeyer, Heinrich (1979). Berufliche und soziale Umschichtung der Bevölkerung: Methodische Anmerkungen zur Planung, Durchführung und Aufbereitung der Befragung. In Heinrich Tegtmeyer (Ed.), *Soziale Strukturen und Mobilität. Beiträge zur sozio-demographischen Analyse der Bundesrepublik Deutschland*, pp. 17-47. Boldt.

Van Melis, Damian (2006). *Republikucht - Flucht und Abwanderung aus der SBZ/DDR 1945 bis* 1961. München: Oldenbourg Verlag.

Werber, Klemens, Günter Bode, and Werner Ehrenforth (1954), *Bundesvertriebenengesetz, Kohlhammer Kommentare*. Stuttgart: Verlag W. Kohlhammer.

Main Tables and Figures

Table 1: Summary Statistics for Main Samples

	Children sample (Arrived aged 1-14)		Youth sample (Arrived aged 15-24)		Adult sample (Arrived aged 25-51)	
	Male	Female	Male	Female	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
AID	.34	.25	.21	.18	.34	.28
EXP	5.3	3.9	3.2	2.7	5	4.1
sd	7.7	6.9	6.4	6.0	7.1	6.8
p25	.00	.00	.00	.00	.00	.00
p75	14	10	.00	.00	11	10
p90	18	18	17	16	18	18
Age in 1971	26	26	38	38	46	46
sd	5.8	5.8	5.1	5.3	3.9	3.9
Outcomes in 1971						
High Qualification (0/1)	.13	.12	.21	.11	.22	.10
Med. Qualification (0/1)	.53	.46	.62	.46	.63	.44
Low Qualification (0/1)	.34	.41	.17	.44	.15	.45
In School/University (0/1)	.15	.10	.01	.00	.00	.00
Voc. Training (0/1)	.07	.04	.00	.00	.00	.00
Employed (0/1)	.84	.55	.98	.5	.96	.55
High-status Job (0/1)	.17	.10	.22	.19	.27	.22
Net Monthly Income (in DM)	988	673	1,253	710	1,387	712
sd	465	311	423	270	466	246
Observations	1,151	1,111	1,551	1,538	905	1,343
Female share		49.12%		49.79%		59.74%

Notes: Summary statistics of GDR-refugees who arrived between 1946 and 1961. N = 7,599 (female share = 53%).

Table 2: Summary Statistics for Potential Years of Exposure to Refugee-Specific Government Aid (EXP), Males

EXP	Mean	Std. Dev.	Median	75% Pctile	90% Pctile	95% Pctile	N
(A) Unconditional							
Children sample							
Before 1953							
EXP	4.9	8	0	18	18	18	542
1953 or later							
EXP	5.7	7.3	0	13	17	18	609
Youth sample							
Before 1953							
EXP	3.1	6.8	0	0	18	18	677
1953 or later							
EXP	3.3	6	0	0	14	16	874
Adult sample							
Before 1953							
EXP	4.4	7.8	0	0	18	18	268
1953 or later							
EXP	5.2	6.9	0	11	16	18	637
(B) Conditional on Aid-Eligibility							
Children sample							
Before 1953							
EXP	18	0	18	18	18	18	148
1953 or later							
EXP	15	2.9	15	17	18	18	240
Youth sample							
Before 1953							
EXP	18	0	18	18	18	18	117
1953 or later							
EXP	14	2.6	14	16	18	18	211
Adult sample							
Before 1953							
EXP	18	0	18	18	18	18	89
1953 or later							
EXP	14	2.9	13	17	18	18	288

Table 3: Balancing Tests: Age-at-Arrival and Father's Educational Background

	Children sample				Youth sample				Adult sample			
	Mean AID (1)	Mean NO AID (2)	Difference (2)-(1) (3)	p-value (4)	Mean AID (5)	Mean NO AID (6)	Difference (6)-(5) (7)	p-value (8)	Mean AID (9)	Mean NO AID (10)	Difference (10)-(9) (11)	p-value (12)
A: Male sample												
Arrival before 1953												
Age at arrival	7.56	7.68	.12	.76	19.77	20.06	.29	.29	26.95	26.92	-.03	.87
Father's Qualification												
High	.06	.08	.02	.48	.02	.05	.03	.17	.08	.05	-.03	.53
Medium	.58	.63	.05	.33	.50	.57	.07	.20	.53	.61	.08	.26
Low	.24	.17	-.07	.08	.32	.34	.02	.82	.30	.29	-.01	.87
Missing	.12	.12	.00	.93	.15	.05	-.10	.00	.09	.05	-.04	.16
Observations	148	394			117	560			66	202		
Arrival in 1953 or later												
Age at arrival	7.71	7.65	-.06	.84	19.85	19.85	.00	.99	31.67	30.23	-1.44	.00
Father's Qualification												
High	.07	.05	-.02	.27	.07	.05	-.02	.17	.03	.04	.01	.52
Medium	.63	.67	.04	.26	.60	.66	.06	.10	.64	.65	.01	.89
Low	.17	.20	.03	.30	.25	.25	.00	.91	.30	.27	-.03	.50
Missing	.14	.08	-.06	.02	.08	.04	-.04	.02	.03	.04	.01	.53
Observations	240	369			211	663			243	394		
B: Female sample												
Arrival before 1953												
Age at arrival	8.15	7.84	-.31	.48	20.16	20.49	.33	.26	27.42	27.29	-.13	.58
Father's Qualification												
High	.09	.06	-.03	.17	.07	.07	-.00	.92	.06	.03	-.03	.30
Medium	.59	.62	.03	.59	.62	.60	-.02	.65	.55	.61	.06	.29
Low	.23	.23	.00	.96	.24	.29	.05	.39	.28	.31	.03	.63
Missing	.09	.10	.01	.87	.06	.05	-.01	.51	.11	.05	-.06	.02
Observations	97	397			98	525			89	338		
Arrival in 1953 or later												
Age at arrival	8.26	7.75	-.51	.14	19.69	19.92	.23	.27	32.09	30.26	-1.83	.00
Father's Qualification												
High	.08	.04	-.04	.07	.12	.05	-.07	.00	.05	.05	.00	.73
Medium	.56	.66	.10	.03	.57	.65	.08	.06	.62	.60	-.02	.51
Low	.20	.23	.03	.53	.22	.27	.05	.22	.30	.32	.02	.54
Missing	.15	.07	-.08	.00	.09	.03	-.06	.00	.04	.03	-.01	.82
Observations	186	431			177	738			288	628		

Table 4: Balancing Tests Male Sample Continued: Father's Occupational Status

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
		Children sample				Youth sample				Adult sample		
	Mean AID	Mean NO AID	Difference (2)-(1)	p-value	Mean AID	Mean NO AID	Difference (6)-(5)	p-value	Mean AID	Mean NO AID	Difference (10)-(9)	p-value
Arrival before 1953												
Father's occupational status												
Self-employed	.16	.15	-.01	.99	.15	.13	-.02	.46	.27	.10	-.17	.00
Higher-level civil servant	.06	.06	.00	.91	.12	.05	-.07	.00	.06	.06	.00	.91
Mid-level civil servant	.08	.06	-.02	.47	.05	.04	-.01	.43	.11	.07	-.04	.34
Lower-level civil servant	.01	.02	.01	.22	.02	.03	.01	.48	.00	.03	.03	.20
Higher-level employee	.10	.13	.03	.37	.07	.05	-.02	.47	.03	.05	.02	.61
Mid-level employee	.07	.10	.03	.26	.03	.06	.03	.10	.06	.05	-.01	.85
Lower-level employee	.02	.04	.02	.21	.02	.05	.03	.17	.00	.03	.03	.16
Worker	.15	.15	.00	.92	.24	.21	-.03	.55	.06	.17	.11	.02
Elite worker	.03	.05	.02	.47	.02	.04	.02	.30	.09	.07	-.02	.66
Qualified worker	.22	.19	-.03	.40	.16	.26	.10	.03	.15	.27	.12	.06
Non-employed	.04	.03	-.01	.35	.03	.05	.02	.31	.03	.03	-.00	.98
Farmer	.06	.01	-.05	.00	.10	.05	-.05	.02	.14	.07	-.07	.09
Observations	148	394			117	560			66	202		
Arrival in 1953 or later												
Father's occupational status												
Self-employed	.17	.07	-.10	.00	.21	.15	-.06	.06	.19	.14	-.05	.12
Higher-level civil servant	.06	.02	-.04	.02	.04	.02	-.02	.06	.05	.03	-.02	.09
Mid-level civil servant	.02	.02	.00	.66	.03	.02	-.01	.39	.06	.04	-.02	.30
Lower-level civil servant	.01	.01	-.00	.66	.02	.02	-.00	.61	.04	.01	-.03	.02
Higher-level employee	.13	.11	-.02	.57	.08	.05	-.03	.09	.05	.03	-.02	.22
Mid-level employee	.14	.10	-.04	.10	.09	.08	-.01	.75	.04	.07	.03	.08
Lower-level employee	.03	.05	.02	.18	.04	.04	-.00	.91	.03	.02	-.01	.39
Worker	.16	.23	.072	.031	.095	.18	.088	.0025	.12	.2	.083	.0064
Elite worker	.05	.05	-.00	.95	.03	.05	.02	.32	.07	.07	.00	.99
Qualified worker	.17	.30	.13	.00	.16	.28	.12	.00	.21	.27	.06	.10
Non-employed	.05	.03	-.02	.40	.04	.04	.00	.86	.03	.04	.01	.36
Farmer	.03	.01	-.02	.09	.15	.07	-.08	.00	.12	.08	-.04	.11
Observations	240	369			211	663			243	394		

Table 5: Balancing Tests Female Sample Continued: Father's Occupational Status

	Children sample				Youth sample				Adult sample			
	Mean AID (1)	Mean NO AID (2)	Difference (2)-(1) (3)	p-value (4)	Mean AID (5)	Mean NO AID (6)	Difference (6)-(5) (7)	p-value (8)	Mean AID (9)	Mean NO AID (10)	Difference (10)-(9) (11)	p-value (12)
Arrival before 1953												
Self-employed	.06	.13	.07	.05	.16	.15	-.01	.71	.24	.20	-.04	.43
Higher-level civil servant	.10	.07	-.03	.20	.10	.05	-.05	.04	.10	.07	-.03	.29
Mid-level civil servant	.07	.06	-.01	.53	.08	.04	-.04	.11	.01	.06	.05	.06
Lower-level civil servant	.01	.02	.01	.61	.01	.02	.01	.42	.02	.03	.01	.62
Higher-level employee	.15	.13	-.02	.50	.08	.07	-.01	.54	.03	.03	-.00	.96
Mid-level employee	.09	.07	-.02	.51	.05	.07	.02	.44	.06	.06	.00	1
Lower-level employee	.06	.04	-.02	.36	.01	.04	.03	.13	.06	.05	-.01	.82
Worker	.22	.17	-.05	.27	.13	.16	.03	.47	.08	.18	.10	.02
Elite worker	.08	.03	-.05	.03	.09	.06	-.03	.22	.05	.05	.00	.75
Qualified worker	.08	.23	.15	.00	.16	.22	.06	.23	.17	.17	.00	1
Non-employed	.04	.04	-.00	.87	.02	.05	.03	.20	.02	.02	.00	.95
Farmer	.01	.02	.01	.72	.09	.07	-.02	.33	.17	.08	-.09	.01
Observations	97	397			98	525			89	338		
Arrival in 1953 or later												
Self-employed	.14	.05	-.09	.00	.18	.11	-.07	.03	.18	.17	-.01	.85
Higher-level civil servant	.07	.04	-.03	.14	.06	.04	-.02	.27	.05	.03	-.02	.10
Mid-level civil servant	.04	.03	-.01	.25	.03	.03	-.00	.93	.06	.04	-.02	.10
Lower-level civil servant	.01	.01	.00	.36	.03	.01	-.02	.05	.02	.04	.02	.17
Higher-level employee	.12	.10	-.02	.33	.07	.05	-.02	.22	.06	.03	-.03	.05
Mid-level employee	.16	.09	-.07	.02	.09	.07	-.02	.30	.05	.06	.01	.59
Lower-level employee	.04	.03	-.01	.63	.05	.03	-.02	.17	.05	.04	-.01	.22
Worker	.19	.26	.07	.06	.14	.21	.07	.03	.14	.21	.07	.01
Elite worker	.03	.06	.03	.10	.03	.06	.03	.14	.06	.05	-.01	.48
Qualified worker	.15	.26	.12	.00	.19	.28	.08	.02	.17	.24	.07	.02
Non-employed	.05	.04	-.01	.81	.05	.05	.00	.90	.03	.04	.01	.68
Farmer	.01	.02	.01	.38	.10	.08	-.02	.45	.13	.06	-.07	.00
Observations	186	431			177	738			288	628		

Table 6: Comparison of GDR Refugees with West German (WG) Natives, Before and After Inverse-Probability Weighting, By Sample and Gender

	Children sample (Arrived aged 1-14)						Youth sample (Arrived aged 15-24)						Adult sample (Arrived aged 25-51)					
	Males			Females			Males			Females			Males			Females		
	GDR	WG		GDR	WG		GDR	WG		GDR	WG		GDR	WG		GDR	WG	
		before IPW	after IPW		before IPW	after IPW		before IPW	after IPW		before IPW	after IPW		before IPW	after IPW		before IPW	after IPW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Father's Qualification																		
Low Qualification	.19	.34	.19	.22	.34	.22	.29	.39	.29	.27	.40	.27	.29	.43	.29	.31	.44	.31
High Qualification	.06	.05	.06	.06	.05	.06	.05	.04	.05	.07	.04	.07	.05	.03	.04	.05	.03	.05
Medium Qualification	.63	.57	.63	.62	.58	.62	.61	.54	.61	.62	.54	.62	.63	.51	.63	.60	.50	.60
Mother's Qualification																		
Low Qualification	.58	.75	.58	.62	.75	.62	.76	.82	.76	.76	.81	.76	.83	.86	.83	.79	.86	.79
High Qualification	.05	.02	.05	.04	.02	.04	.02	.02	.02	.02	.01	.02	.02	.01	.02	.02	.01	.02
Medium Qualification	.33	.21	.33	.32	.21	.32	.18	.15	.18	.19	.15	.19	.12	.11	.12	.16	.11	.16
Father's Occupation																		
Self-employed	.13	.13	.13	.10	.13	.10	.15	.13	.15	.14	.13	.14	.15	.13	.15	.18	.13	.18
Farmer	.02	.11	.02	.02	.11	.02	.07	.13	.07	.08	.14	.08	.09	.15	.09	.09	.16	.09
Non-employed	.03	.04	.03	.04	.04	.04	.04	.04	.04	.05	.04	.05	.03	.04	.03	.03	.04	.03
Higher-level civil servant	.05	.04	.05	.06	.04	.06	.04	.03	.04	.05	.03	.05	.05	.03	.05	.05	.03	.05
Mid-level civil servant	.04	.04	.04	.04	.04	.04	.03	.04	.03	.04	.04	.04	.06	.04	.06	.04	.04	.04
Lower-level civil servant	.01	.02	.01	.01	.02	.01	.02	.02	.02	.02	.03	.02	.02	.03	.02	.03	.03	.04
Higher-level employee	.12	.05	.12	.12	.05	.12	.06	.04	.06	.06	.04	.06	.04	.03	.04	.04	.03	.04
Mid-level employee	.10	.06	.10	.10	.06	.10	.07	.05	.07	.07	.05	.07	.06	.04	.06	.06	.04	.06
Lower-level employee	.04	.03	.04	.04	.04	.04	.04	.03	.04	.04	.03	.04	.02	.03	.02	.04	.03	.04
Elite worker	.05	.05	.05	.05	.05	.05	.04	.05	.04	.06	.05	.06	.07	.05	.07	.06	.05	.06
Qualified worker	.22	.22	.22	.22	.22	.22	.25	.22	.25	.24	.21	.24	.25	.22	.25	.20	.20	.20
Worker	.18	.22	.18	.21	.21	.21	.19	.22	.19	.18	.21	.18	.16	.22	.16	.17	.22	.18
Observations	1,151	60,172		1,111	58,972		1,551	56,868		1,538	59,911		905	37,549		1,343	41,858	

Notes: This table shows a comparison in observable characteristics of GDR refugees (Columns denoted 'GDR': 1, 4, 7, 10, 13, 16) and native West Germans (denoted 'WG'), before Inverse-Probability Weighting (Columns denoted 'before IPW': 2, 5, 8, 11, 14, 17) and thereafter (Columns denoted 'after IPW': 3, 6, 9, 12, 15, 18), separately by sample and gender.

Table 7: Effects of Refugee-Specific Government Aid by Age-at-Arrival Sample, Males

VARIABLES	(1) High Qualification	(2) Med. Qualification	(3) Low Qualification	(4) Employed	(5) High-status Job	(6) Home Ownership	(7) Log. Net Monthly Income
Youth Sample							
Refugee from East Germany	0.014	-0.013	-0.001	-0.003	0.002	-0.184***	-0.000
	(0.016)	(0.021)	(0.016)	(0.006)	(0.017)	(0.020)	(0.011)
AID_i	-0.002	-0.042	0.045	-0.003	0.028	0.098*	0.017
	(0.041)	(0.052)	(0.045)	(0.016)	(0.044)	(0.051)	(0.027)
AID_i*(Year of $Arrival_i \geq 1953$)	0.160***	-0.077	-0.083	0.014	0.171***	-0.094	0.128***
	(0.053)	(0.064)	(0.053)	(0.018)	(0.057)	(0.059)	(0.038)
Year of $Arrival_i \geq 1953$	-0.035*	0.032	0.003	0.002	-0.046**	0.005	-0.021
	(0.021)	(0.027)	(0.022)	(0.009)	(0.022)	(0.024)	(0.015)
Observations	58,363	58,363	58,363	58,419	58,414	58,419	53,226
Children Sample							
Refugee from East Germany	0.026	-0.044*	0.018	0.010	0.069***	-0.066***	0.036*
	(0.021)	(0.025)	(0.020)	(0.013)	(0.023)	(0.018)	(0.020)
AID_i	-0.033	0.020	0.013	-0.027	0.007	0.077*	0.008
	(0.042)	(0.049)	(0.041)	(0.027)	(0.043)	(0.041)	(0.038)
AID_i*(Year of $Arrival_i \geq 1953$)	-0.025	0.051	-0.026	-0.009	-0.037	-0.068	-0.096
	(0.047)	(0.062)	(0.055)	(0.042)	(0.048)	(0.044)	(0.063)
Year of $Arrival_i \geq 1953$	-0.021	-0.004	0.025	0.036	-0.046*	0.036*	0.037
	(0.024)	(0.035)	(0.030)	(0.023)	(0.026)	(0.020)	(0.033)
Observations	61,231	61,231	61,231	61,323	61,318	61,323	49,232
Adult Sample							
Refugee from East Germany	0.065**	-0.061*	-0.003	-0.015	0.012	-0.278***	0.028
	(0.028)	(0.033)	(0.027)	(0.015)	(0.032)	(0.031)	(0.020)
AID_i	-0.011	0.128**	-0.117***	-0.015	0.029	0.197***	0.031
	(0.056)	(0.062)	(0.042)	(0.031)	(0.062)	(0.068)	(0.035)
AID_i*(Year of $Arrival_i \geq 1953$)	0.077	-0.176**	0.099**	0.020	-0.031	-0.127*	0.012
	(0.064)	(0.074)	(0.050)	(0.034)	(0.073)	(0.077)	(0.042)
Year of $Arrival_i \geq 1953$	-0.052	0.088**	-0.036	0.009	0.045	-0.047	0.007
	(0.033)	(0.040)	(0.033)	(0.018)	(0.039)	(0.036)	(0.024)
Observations	38,425	38,425	38,425	38,454	38,452	38,454	34,792

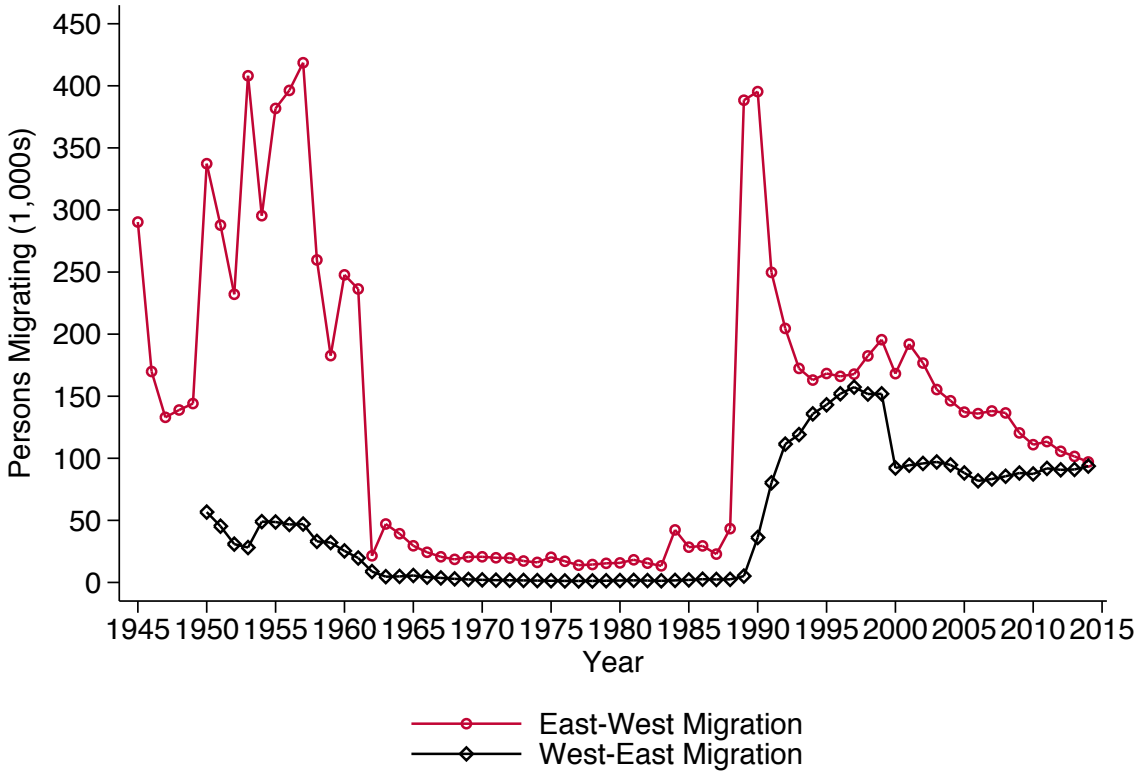
Notes: Control variables account for age and its square. Parental characteristics at age 15 are also accounted for. They capture the father's occupational status (13 categories), the father's industry (16 categories) the father's and the mother's qualification level (6 categories, respectively). Robust standard errors are clustered at the level of the sampling units; there are several hundred clusters. ***, **, and * denote significance at the 1 percent, 5 percent, and 10 percent level, respectively. Weights were assigned to the observations from the control group (West German natives) according to Inverse Probability Weighting.

Table 8: Effects of Refugee-Specific Government Aid by Age-at-Arrival Sample, Females

VARIABLES	(1) High Qualification	(2) Med. Qualification	(3) Low Qualification	(4) Employed	(5) Home ownership	(6) Married	(7) Number of children	(8) Log. Net Monthly Income
Youth Sample								
Refugee from East Germany	-0.002	-0.013	0.016	0.055**	-0.214***	-0.008	0.012	0.005
	(0.012)	(0.022)	(0.022)	(0.024)	(0.021)	(0.017)	(0.075)	(0.017)
AID_i	0.010	-0.039	0.029	-0.026	0.081	-0.008	0.187	-0.050
	(0.032)	(0.050)	(0.051)	(0.057)	(0.054)	(0.041)	(0.195)	(0.052)
AID_i*(Year of Arrival$_i \geq 1953$)	0.073	-0.051	-0.022	-0.005	-0.060	0.002	-0.131	0.166**
	(0.045)	(0.065)	(0.063)	(0.071)	(0.063)	(0.050)	(0.217)	(0.067)
Year of Arrival$_i \geq 1953$	0.009	0.100***	-0.109***	-0.001	0.012	0.004	-0.137	0.021
	(0.016)	(0.028)	(0.028)	(0.031)	(0.024)	(0.022)	(0.088)	(0.022)
Observations	61,376	61,376	61,376	61,449	61,449	61,449	61,449	23,190
Children Sample								
Refugee from East Germany	0.036**	0.005	-0.041*	0.016	-0.065***	0.002	0.046	0.040
	(0.018)	(0.026)	(0.024)	(0.027)	(0.019)	(0.019)	(0.059)	(0.027)
AID_i	0.018	-0.053	0.035	0.067	-0.003	-0.015	-0.098	-0.003
	(0.042)	(0.057)	(0.055)	(0.059)	(0.045)	(0.046)	(0.130)	(0.058)
AID_i*(Year of Arrival$_i \geq 1953$)	-0.032	0.061	-0.029	-0.078	0.007	-0.072	0.021	0.021
	(0.049)	(0.072)	(0.069)	(0.074)	(0.049)	(0.057)	(0.147)	(0.079)
Year of Arrival$_i \geq 1953$	-0.024	-0.027	0.051	0.001	0.019	-0.013	-0.059	-0.043
	(0.022)	(0.035)	(0.033)	(0.036)	(0.022)	(0.026)	(0.067)	(0.038)
Observations	60,001	60,001	60,001	60,083	60,083	60,083	60,083	27,530
Adult Sample								
Refugee from East Germany	0.026	0.029	-0.055**	0.043	-0.231***	-0.002	-0.167**	0.050**
	(0.017)	(0.027)	(0.027)	(0.030)	(0.025)	(0.023)	(0.083)	(0.023)
AID_i	-0.002	-0.007	0.010	-0.048	0.077	0.018	-0.093	0.036
	(0.042)	(0.057)	(0.061)	(0.064)	(0.061)	(0.050)	(0.143)	(0.057)
AID_i*(Year of Arrival$_i \geq 1953$)	0.026	-0.046	0.020	0.040	-0.035	0.091*	0.286	0.025
	(0.047)	(0.067)	(0.070)	(0.073)	(0.068)	(0.055)	(0.178)	(0.063)
Year of Arrival$_i \geq 1953$	-0.026	0.085***	-0.058*	0.068*	-0.051*	-0.065**	0.023	-0.031
	(0.020)	(0.032)	(0.032)	(0.036)	(0.029)	(0.028)	(0.109)	(0.027)
Observations	43,150	43,150	43,150	43,201	43,201	43,201	43,201	16,221

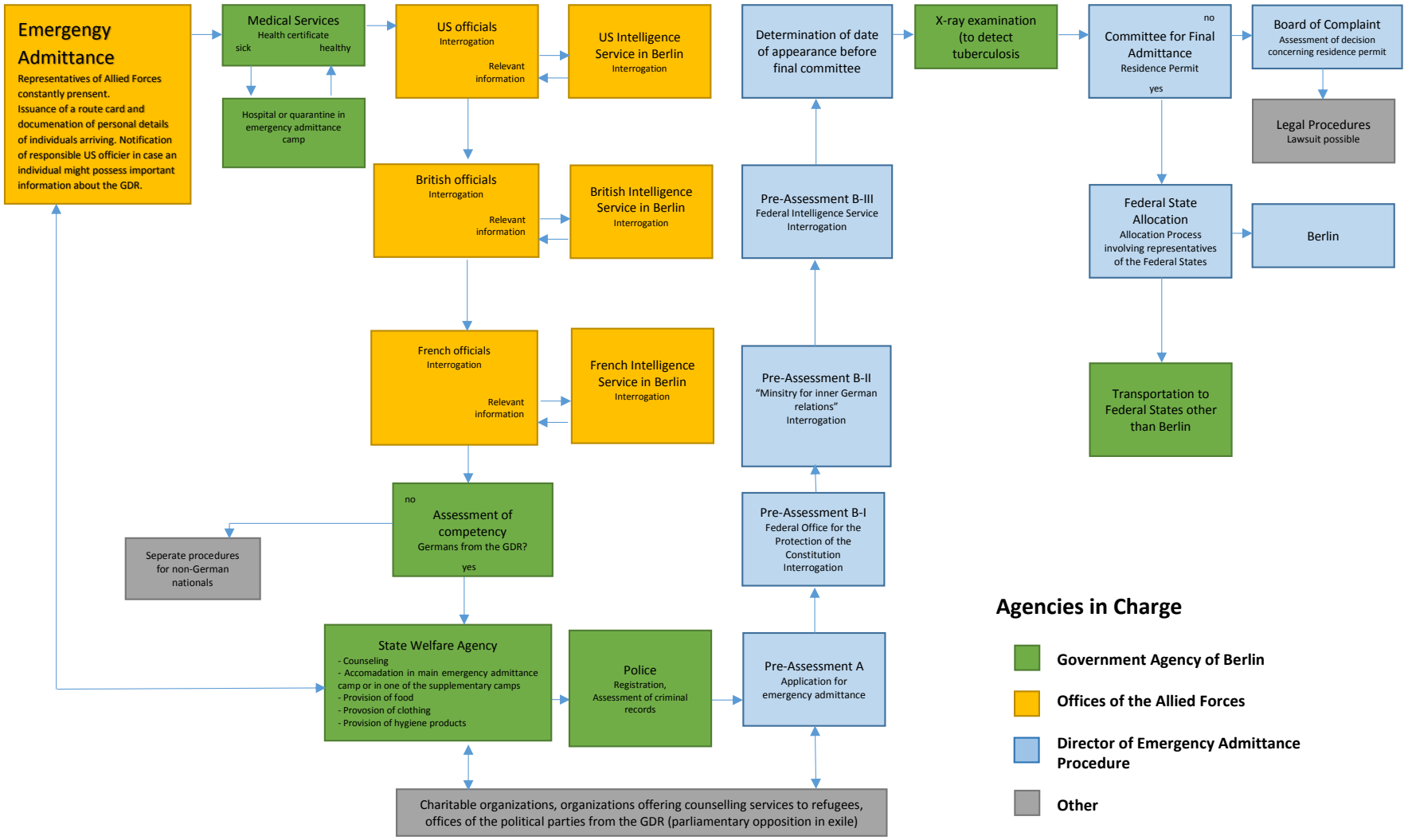
Notes: Control variables account for age and its square. Parental characteristics at age 15 are also accounted for. They capture the father's occupational status (13 categories), the father's industry (16 categories) the father's and the mother's qualification level (6 categories, respectively). Robust standard errors are clustered at the level of the sampling units; there are several hundred clusters. ***, **, and * denote significance at the 1 percent, 5 percent, and 10 percent level, respectively. Weights were assigned to the observations from the control group (West German natives) according to Inverse Probability Weighting.

Figure 1: Migration between East and West Germany, 1945-2014



Sources: 1945-1949, East to West: Based on retrospective information from the Census of 1961, excluding Eastern European expellees who arrived in West Germany via the Soviet Occupation Zone, and taken from Heidemeyer (1994, p. 44). "1945" combines figures for both 1944 and 1945. 1950-61: Mobility statistics provided by the Federal Statistical Office, obtained from Heidemeyer (1994, p. 45). 1962-2015: Mobility statistics provided by the Federal Statistical Office upon request. Note that all data from 1950 onward stem from registration offices.

Figure 2: Emergence Reception Procedure in Marienfelde around 1960



Source: Replication and translation from Kimmel (2005, p.121).

Figure 3: Definition of Samples and Historical Time Line