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Little Nomads

Economic and Social Impacts of Migration on Children

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Abstract

This paper reviews the main findings from 113 studies produced between 1990 and 2023, focusing on the impact of migration on various child groups affected through the migration path, including left-behind, migrant (voluntary and forced), and native children. The findings reveal that migration influences children's outcomes in complex and context-dependent ways, and it interacts dramatically with household demographics and public policies. Key results include the following: (i) left-behind children benefit from remittances but experience dramatic declines in their cognitive and non-cognitive development due to parental absence; (ii) immigrant children generally fare better

than those in their origin countries but still underperform compared to native children in host countries; and (iii) the impacts of migration on native children largely depend on the adjustment of public service supply to meet increased demand. In cases where education services expand to meet rising demand, the effect on native children can be minimal or even positive. This paper emphasizes the need for more experimental or quasi-experimental research to examine the effectiveness of programs that support migrant and minor host children, and it calls for longitudinal data collection to better understand the challenges and needs of migrant children, particularly in developing countries.

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Little Nomads: Economic and Social Impacts of Migration on Children*

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"People made fun of me because I used different words; despite the fact we all spoke Spanish, they could tell something was different as soon as I opened my mouth. Hence, I learned to speak Colombian fast, I had to. It was not a choice."

Venezuelan migrant child in Colombia (age 16), Dec 2023

I INTRODUCTION

Approximately 3% of the global population are migrants (World Bank, 2023). Of this share, almost 9% are children under 14 years of age, amounting to about 23.3 million individuals. While significant, these numbers do not account for all the children impacted by migration—including those left behind and native-born children in hosting countries—which highlights the relevance of this issue. It is crucial to understand the effects of migration on children because this significant event can profoundly shape life trajectories. Moreover, specifically for children whose origins or destinations are in developing countries, migration can alter their mobility out of or into poverty. Although migration destinations are balanced between the northern and southern hemispheres, only 15% of the world's migrant children originate in the north, whereas 85% migrate from the south (World Bank, 2023). There is substantial research on the impacts of migration on adult migrants and hosts but considerably less regarding its effects on children.

This paper aims to provide a comprehensive review of research findings on the impact of migration on children's development with an emphasis on insights from Economics and Psychology. It summarizes migration effects on various groups of children by category based on their relationship to the migratory journey, including:

- 1. *Left-behind children:* Children who remain in their home country while one or more parents migrate. We focus on how the absence of a parent impacts their outcomes.
- Migrant children: Those who have migrated themselves or in some cases are second-generation
 migrants. We examine how the experience of relocating to a new environment affects their
 outcomes.
- 3. *Native children:* Non-migrant children in the host country who interact with migrant children. We assess how their exposure to peers from different backgrounds influences their outcomes.

4. Forcibly displaced children: These migrate due to involuntary conditions such as conflict and natural disasters. We explore their unique challenges, including trauma, disruption in education, and adaptation to new environments.

The review encompasses papers published in the top five economic journals and specialized journals in migration, education, and early childhood development.¹ We completed the search by consulting Google Scholar to capture any significant articles missed initially. Additionally, we examined references within each selected article's literature review, focusing on the most relevant ones. This approach yielded a robust collection of 113 pertinent scholarly works.

This literature review discusses various methodologies, including experimental, quasi-experimental, and qualitative approaches, among others. Three papers employed experimental methods, specifically randomized controlled trials. Quasi-experimental designs were used in 95 papers, indicating causal studies not strictly experimental in nature. Within these, 51 papers used ordinary least squares, 19 used instrumental variables, 13 applied difference-in-difference approaches, 4 implemented regression discontinuity designs, and 25 incorporated fixed effects. Other methodologies included the Cox proportional hazard model, the Todd and Wolpin (2023) value-added model, the Blinder-Oaxaca decomposition technique, and survival analysis. Notably, only 3 qualitative studies were cited. (Refer to the appendix for detailed descriptions of each paper).

This review comprises five additional sections. Section II delves into research on the effects of migration on *migrant children*, focusing on education, health, early childhood development, and the influence of immigration policy. Generally, this research shows that migrant children fare better than those in their origin countries but still fall behind native children in host countries. This gap often extends to poorer long-term labor outcomes, partly due to lower educational attainment and language barriers. Age at migration significantly influences the disparity between native and migrant children, and immigration policies are pivotal in narrowing or widening this gap.

Section III examines the impact of migrant parents on their *left-behind children*. The evidence reveals several key points. First, remittances usually benefit the education and physical health of these children by stabilizing income. This stability tends to reduce child labor, bolster school re-

¹Included journals are the *International Migration Review*, *Journal of Development Economics*, *Journal of Population Economics*, *Economics of Education Review*, and *Early Childhood Research Quarterly*.

tention, and improve nutrition, potentially enhancing long-term economic well-being. Second, a parent's migration often shifts intra-household dynamics—especially in bargaining—which positively influences girls' educational achievements. Third, the absence of a parent due to migration severely affects children's mental health and socio-emotional development. Finally, young children left behind experience a notable cognitive delay, primarily due to reduced parental involvement.

Section IV describes the effects of migration on *native children*. Most evidence for this population concentrates on education outcomes, native flight, and youth employment. The main findings suggest that the impact of migration on native children's educational performance stems from the ability and willingness of educational institutions to adapt and expand resources in response to increased demand from migrant populations. Positive effects are observed in cases where resources adjust quickly to higher demand for education, and negative effects are observed when resources don't change. Moreover, studies point to large flight effects among native students in schools where the share of immigrant students increases. Furthermore, concerning youth employment, there is some evidence of detrimental effects of youth migration on youth employment for Black Americans in the United States.

Section V examines research regarding the effects of migration on forcibly displaced children. Work on refugees represents the majority of scholarship in this area. Refugee children are among the most vulnerable children worldwide. They not only endure the migration experience but do so involuntarily, and it typically accompanies traumatic events such as conflicts and natural disasters. Moreover, refugee children, especially adolescents, face a high risk of not returning to school since they often have to work inside or outside the household due to the extremely high vulnerability of their families. Existing research generally confirms that forcibly displaced children lag behind native children. It also establishes that—as in the case of voluntary migration—children's outcomes depend considerably on how public service supply responds to higher demand. Emerging work has examined the effects of public programs that support refugee populations on children's outcomes. These studies highlight promising outcomes from cash transfer initiatives, teacher training programs, language instruction, and programs that promote social cohesion.

Finally, section VI discusses areas to advance research. A summary table with all the papers

reviewed in this study is presented in the appendix.

II MIGRANT CHILDREN

This section outlines the evidence concerning the impact of migration on migrant children. It reviews areas such as education, health, and early childhood development, and it highlights the critical role of immigration policies.

II.A Education outcomes

Existing work in this area documents lower educational performance and attainment of immigrant children relative to native children. These differences have long-term consequences for immigrants' economic success, including career choices and wages. Documented drivers of these disparities include higher socioeconomic vulnerability, parental decisions, stereotypes held by teachers, school sorting, and immigration enforcement.

Immigrants exhibit lower performance relative to hosts. Studies consistently indicate that immigrant children tend to perform worse than their native counterparts in terms of school GPA and standardized test scores. The performance gap is more pronounced among boys, whereas girls tend to perform relatively better (Böhlmark, 2008).

Early economic research tested whether the age of arrival plays a crucial role in immigrant children's education outcomes. The premise was that the age of arrival correlates with a stage of children's physical and cognitive development in which younger immigrants adapt and learn faster due to the brain's plasticity at early ages. These studies showed a noticeable decline in performance among children who arrive after a certain age threshold (typically around 7–9 years old); this decline is particularly worse on verbal tests (Bleakley and Chin, 2010). Specifically, Böhlmark (2008) finds a strong negative impact of immigrating after age nine on immigrant children's GPA in Sweden, and Cahan *et al.* (2001) show that starting at the arrival age of seven, there was a monotonic decrease in performance for immigrant children in Israel between 1952 and 1970, with worse results on verbal tests than on mathematical ones. Similarly, Cortes (2006) shows that the test score gap between immigrant children and second-generation children narrows according to how long the former have been residing in the United States.

Moreover, research on this topic underscores the importance of the critical period for language

acquisition, emphasizing that the timing of arrival can significantly impact the integration of immigrant children when they become adults. Both Aslund *et al.* (2015) and Bleakley and Chin (2010) find in Sweden and the United States, respectively, that English proficiency (measured indirectly by the age of childhood arrival) increases the probability of marrying a native, having a higher fraction of work colleagues who are natives, and residing outside of an ethnic enclave.

Immigrant children also face disparities in terms of school attendance rates and attainment. Colding *et al.* (2009) find that the dropout rates of children of immigrants in Denmark who are enrolled in vocational upper secondary school are higher than those of natives. Additionally, McKenzie and Rapoport (2011) show that living in a migrant household decreases children's likelihood of completing school by 13%–15% in the Mexican context.

Similar to performance, the age at which immigrant children arrive can impact their attendance and attainment levels. In Germany, Lemmermann and Riphahn (2018) show attainment decreases for children who arrive after age six, suggesting immigrant children face more language barriers after this threshold. In fact, Foged *et al.* (2022) and Foged *et al.* (2023) find that language training offered by the Danish government to immigrant adults has significant intergenerational spillovers on their children in terms of higher completion rates from lower secondary school.

Finally, there is evidence that lower educational performance of immigrant children has long-term consequences, particularly in terms of career choices and wages. In Italy, Barban and White (2011) observe that immigrant children are more likely to enroll in vocational and polytechnic schools due to inferior outcomes on the middle school exam. Moreover, research on immigrant children's labor outcomes consistently shows that adults who arrive at an older age during the immigration process tend to have lower earnings in their host country (Böhlmark, 2009). Language skills are a critical channel through which age at arrival influences adult earnings. Bleakley and Chin (2004) suggest that immigrants who arrive later in the United States may have lower language proficiency, which can significantly hinder their ability to secure higher-paying jobs and integrate into the labor market effectively.

Potential driver 1: parental investment decisions. Another group of articles has explained the consequences of migration on the parental investment decisions of migrants concerning the human

capital of their children. The main finding is that the socioeconomic status of migrant families upon arrival is on average lower than that of native families, which directly translates into fewer monetary and time investments in their children. For instance, Rangvid (2007) finds that 50% of the gap between immigrant and native students in Denmark is explained by differences in the family socioeconomic status of each comparison group. Likewise, Schnepf (2007) finds in a cross-country analysis of OECD members that in European countries, socioeconomic background is the main determinant for the immigrant-versus-native performance gap in tests like PISA, TIMSS, and PIRLS. Furthermore, Dahl *et al.* (2020) show that in Germany, migrant parents from backgrounds with traditional cultural norms (e.g., Muslims) tend to invest less in their daughters' schooling. Consequently, their daughters receive worse grades in school.

Potential driver 2: school sorting. Another explanation for the lower performance of immigrant children compared to native peers is the potential sorting of this population into schools with unfavorable characteristics. Rangvid (2007) finds that even though immigrant students in Denmark have access to school resources comparable to native students—including class size, student-teacher ratio, language lessons per week, and physical and educational infrastructure—other factors contribute to the immigrant students' low performance on the PISA test. These determinants include teachers' expectations, encouragement, and pressure to achieve, as well as a scarcity of specialized teachers compared to the number available for native students of the same socioeconomic status. Also, Liu et al. (2010) note that immigrant families often locate in areas with lower-quality schools than those attended by native counterparts.

Potential driver 3: stereotypes held by teachers. Recent literature has shown how teachers' perceptions and stereotypes can influence immigrant children's education outcomes. Triventi (2020) finds that Italian teachers tend to assign lower grades to students with an immigrant background compared to native students, suggesting that teachers may harbor implicit biases. Alesina *et al.* (2018) confirmed that intuition, finding that Italian teachers who hold stronger stereotypes (higher Implicit Association Test scores - IAT) assign lower grades to immigrant students compared to native peers. However, teachers increase grading when they are randomly informed about the stereotypes they hold.

Similarly, Carlana et al. (2022) find that Italian teachers give inaccurate recommendations about

educational careers to immigrant children, who consequently enroll disproportionately in vocational high schools, as opposed to natives who go more to technical and academically oriented high schools. The behavior is particularly observed among female immigrant students (Aktaş *et al.*, 2022). Nevertheless, the authors show that when career counseling is randomly provided to highly skilled immigrant students, their likelihood of enrolling in the high track matches that of native students.

II.B Health outcomes

Evidence in this area indicates that migrant children generally have better health outcomes than children in their origin countries. However, they still lag behind native children. Additionally, the evidence shows that access to health services is key to enhancing migrant children's health. This leads to more efficient health care utilization, with greater use of preventive services and less reliance on emergency services.

Health outcomes. Migrant children often exhibit better anthropometric measures, such as weightfor-age (WfA) and height-for-age (HfA) than children from their places of origin, yet they experience higher mortality rates compared to native children. Cockx (2018) demonstrates that children who relocate from rural to urban areas in Tanzania exhibit higher HfA z-scores and reduced stunting rates than those from sending areas. The study suggests this improvement may stem from an increase in maternal income that in turn contributes to improved long-term food security. However, in addition to the income effect hypothesis, there is evidence that the improvement in HfA and stunting rates might be partly due to changes in parenting nutritional habits. Specifically, Stillman et al. (2012) find that dietary change is one of the main determinants of the improvement in anthropometric measures for immigrant children aged three to six years in New Zealand. However, the authors also note that these children face a higher risk of obesity compared to peers in their places of origin.

Interestingly, Thomas (2007) finds that in the lowest quintiles of the socioeconomic distribution in South Africa, migrants have a higher likelihood of child mortality than natives. However, in the highest socioeconomic quintiles, child mortality is more prevalent among the native population.

Health service access. Access to health care is crucial for improving migrant children's health out-

comes. Bronchetti (2014) and Currie (2000) find that changes in health insurance eligibility in the United States reduce the likelihood that a child in an immigrant family will go without a doctor's visit for more than 12 months by 7 to 12 percentage points (pp). They also decrease the likelihood of an emergency room (ER) visit in the past year by 4 to 6 pp. These results collectively suggest that eligibility for public insurance leads to increased utilization of more efficient health care services such as preventive and ambulatory care while reducing reliance on costly ER visits for children in immigrant families. Furthermore, the findings also indicate that eligibility for public insurance may lead to modest improvements in certain child health outcomes that typically respond to ambulatory or preventive care. These include, for example, a lower likelihood of experiencing an asthma attack in the past 12 months (Bronchetti, 2014).

II.C Early childhood development

Literature on the early development of immigrant children is very limited. Available evidence in Psychology suggests that immigrant children frequently exhibit disparities compared to their native counterparts, with potential delays in cognitive and language skills (De Feyter and Winsler, 2009).

Regarding language proficiency among young immigrant children, Palermo and Mikulski (2014) show that factors such as preschool attendance significantly influence the acquisition of communication skills. They observe that positive peer interactions and increased levels of English exposure during young ages positively correlate with the English vocabulary and letter-word skills of Spanish-speaking immigrant children in the United States.

II.D The central role of immigration policy

Research often investigates how immigration policies impact migrant children's outcomes. The findings consistently show that strict enforcement against immigrants harms these children's outcomes. Conversely, policies that improve service access and integration typically lead to positive outcomes for them.

Deportation enforcement. The impact of deportation enforcement measures on immigrant children is a subject of broad interest, especially in the U.S. context. Regarding the effect on early child-hood development, the enforcement of immigration laws can lead to a decline in the English-

language skills of these children (Arenas Arroyo and Schmidpeter, 2022). Moreover, Santillano *et al.* (2020) also find that in the United States, enrollment of Hispanic immigrant children in the Head Start program—which provides comprehensive early childhood education, health, and nutrition—decreases by 10% after a law enforcement raid. Primarily, this decline occurs because parents are deterred from appearing in public spaces.

Concerning the education outcomes of immigrant children, Amuedo-Dorantes and Lopez (2015) and Amuedo-Dorantes and Lopez (2017) find that in U.S. areas with intensified immigration law enforcement, the probability of school-year repetition and dropping out for Hispanic children between ages 14 and 18 years increases by 14% and 18%, respectively. Likewise, Dee and Murphy (2020) find that new ICE partnerships lead to a 10% decrease in the Hispanic immigrant student population within a span of two years. Furthermore, the learning environment plays an important role in immigrant children's motivation, focus, and parental involvement. Amuedo-Dorantes *et al.* (2023) use data from the "Between the Lines" project to show that immigrant students who are enrolled in U.S. school districts implementing safe-zone policies² demonstrate improvements in several outcomes. For instance, they are 17% less likely to report difficulties in concentrating during school hours, 65% more inclined to express diligence in their studies, and 31% more optimistic about their prospects of achieving higher education, relative to other students. Additionally, these policies enhance caregiver participation in parent-teacher meetings by 34%.

Similar results are observed in the health care domain. Particularly, Watson (2014) finds that an increase in federal immigration enforcement acts leads to a decrease in Medicaid enrollment and usage among children of non-citizens, even if the children themselves are U.S. citizens. Additionally, Amuedo-Dorantes *et al.* (2022) find that more intense local U.S. immigration enforcement measures, particularly during the third trimester of pregnancy, raise the probability of infants being born with low birth weight (less than 2,500 grams). They note increased maternal stress and a decrease in prenatal-care medical visits as underlying factors.

In terms of economic and family impacts, Amuedo-Dorantes *et al.* (2018) show that deportation enforcement raises the likelihood of children living in impoverished households by 4%, primarily due to reduced working hours among parents. Furthermore, Amuedo-Dorantes and Arenas-

²A safe-zone policy within a school district implies that immigration authorities have limited entry or access.

Arroyo (2019) show a concerning 19% increase in family separations, particularly affecting children whose parents are undocumented and/or who are sent to live with relatives or friends threatened by deportation.

Public service access. Foged et al. (2023) underscore that refugee children in Denmark benefit from higher completion rates when their parents are exposed to language training programs, suggesting a positive correlation between language skills acquisition within refugee families and educational success. In a related context, Foged et al. (2022) indicate lower crime rates among refugee populations, possibly as a consequence of improved access to educational opportunities and integration programs. Furthermore, studies in the U.S. context by Bronchetti (2014) and Currie (2000) emphasize the importance of eligibility for public health insurance, revealing that it increases child preventive care utilization and positively impacts health outcomes such as the management of conditions like asthma.

Moreover, Villarreal and Gonzalez (2016) show that participation in extracurricular activities in U.S. schools predicts positive social behaviors for immigrant children. Specifically, participation in sports-related activities is associated with an increase in school membership feelings of Hispanic immigrant children and higher peer prosocial orientation behavior. Nevertheless, treatments might not induce homogeneous effects across population groups. For instance, Dahl *et al.* (2020) find that girls from traditional cultures are socially isolated and less likely to self-identify as German, which suggests they might need tailored support.

Finally, evidence in the economic field shows how targeted interventions can mitigate higher criminal propensity of migrant youth as documented in Vazsonyi and Killias (2001). Foged *et al.* (2022) and Foged *et al.* (2023) highlight that language training programs for refugees can lead to a reduction in crime rates among the children of treated parents. Both articles suggest that equipping parents with language skills contributes to keeping children in schools and possibly increases the opportunity cost of criminal activities for immigrant children.

Citizenship rights. Felfe et al. (2020) find that the introduction of birthright citizenship for immigrants in Germany is associated with increased attendance in non-compulsory educational stages such as preschool and secondary school. Moreover, it also caused immigrant children to progress

faster through primary school and raised the likelihood they would pursue the academic track of secondary school. All these effects underscore the positive impact of citizenship on immigrant children's educational trajectories and opportunities. Furthermore, Felfe *et al.* (2021) delve into the social dimension, revealing that complete citizenship rights in Germany can foster prosocial behavior, including out-group cooperation. This finding suggests that individuals who enjoy full citizenship rights may exhibit a higher level of engagement and cooperation with members of different social or cultural groups, potentially facilitating assimilation into the broader community.

Nevertheless, Dahl *et al.* (2020) highlight that the birthright citizenship policy in Germany can have a differential effect on immigrant girls from traditional cultures, leading to a decrease in their measures of life satisfaction and self-esteem by approximately 0.32 and 0.25 standard deviations, respectively. As noted above, the study also reveals that Muslim girls who acquire birthright citizenship exhibit reduced integration into German society. The authors suggest that immigrant Muslim parents invest less in educating their daughters, resulting in lower academic performance among girls born after the implementation of the birthright citizenship reform.

III LEFT-BEHIND CHILDREN

The term left-behind children refers to minors who remain in their places of origin or permanent residence while one or both parents migrate to another country, typically for employment purposes. This circumstance often arises due to financial constraints, legal impediments, or concerns regarding the children's welfare that prevent the parents from bringing them along. Additionally, it encompasses situations wherein parents relocate to urban areas while their children remain in rural residences. These children are typically cared for by a lone parent, other family members, acquaintances, community members, childcare institutions, or independently. In many instances, parents provide financial support through remittances while experiencing prolonged physical separation. This scenario produces a range of positive and negative impacts encompassing cognitive, emotional, psychological, physical, and social aspects. This section summarizes the work about the effects of a migrant parent on left-behind children in terms of education, health outcomes, and early childhood development.

III.A Education outcomes

Current evidence highlights two main findings. First, remittances generally have a positive impact on the education outcomes of left-behind children through the stabilization of household income. However, in households where remittances fail to stabilize income, child labor tends to increase, leading to lower educational attainment for left-behind children. These effects have significant consequences and have been shown to extend into long-term changes in economic well-being. Second, when a parent migrates, it often leads to changes in intra-household bargaining dynamics for the remaining household members. Typically, these changes positively influence girls' educational achievement.

Remittances. Remittances are the most prevalent determinant of improvements in educational outcomes. The most common documented channels include increased household income and higher financial stability that lead to a reduction in child labor and an increase in school retention (Amuedo Dorantes *et al.*, 2010). Edwards and Ureta (2003), for instance, find that remittances sent to El Salvador lower the risk of school dropout in rural areas. Kandel (2003) finds that sibling internal migration in Mexico was associated positively with the educational attainment of left-behind children. Furthermore, Wassink and Viera (2021) show that Mexican left-behind children are more likely to complete lower-secondary school, enter upper-secondary school, and complete upper-secondary school. Notably, these associations are most pronounced among children whose parents did not complete primary school and those who reside in rural areas.

When remittances fail to substantially increase household financial stability, in the short run, left-behind boys increase working hours and reduce educational attainment. Antman (2011) finds that in Mexico, the most affected group is boys aged 12 to 15 years. This highlights the immediate impact of parental migration on the educational and labor trajectories of these children. Moreover, the reduction in human capital accumulation that results from these adjustments can lead to lower income levels in adulthood, as observed in the Chinese context (Feng *et al.*, 2022). This suggests that the consequences of parental migration during childhood can extend into the individual's later years, affecting their economic well-being in the long run.

Changes in intra-household bargaining. Another important channel relates to intra-household bar-

gaining after one parent migrates. Antman (2012) observes a reallocation of resources among siblings when the male head of household migrates. Thus, the female parent allocates more resources to girls and a lower fraction to boys, increasing the educational attainment of the former group by up to one year. These results underscore a significant connection between international migration and gender-based discrimination within the household, empowering spouses to exert greater control over the allocation of resources and thereby favoring investment in girls' education. Similarly, Saleemi (2023) finds that in Pakistan, when the father is absent, women participate more in the resource allocation decision and thus expenditures on girls increase by 31%. Lee and Park (2010) document similar results for the Chinese context.

III.B Health outcomes

Research on the effects of a migrant parent on left-behind children generally indicates positive outcomes for physical growth, which are associated with the positive income effect caused by remittances and better nutritional practices. In contrast, the parental absence is highly detrimental to children's mental health and socioemotional skill development.

Anthropometrics. Overall, the evidence shows that parental migration has positive effects on anthropometric measures of left-behind children. Hildebrandt *et al.* (2005) show that in the Mexican context, this is due to two factors. First, remittances allow households to spend additional resources on food and health services. Second, the authors argue that migrants learn better care and nutritional practices in the United States that later transfer to their children in Mexico. Despite these positive effects, left-behind children are less likely to be breastfed, fully vaccinated, or taken to the doctor in the first year of life. Likewise, Mu and De Brauw (2015) find that in China, parental migration improves the WfA z-score because an increase in income translates into better access to tap water for left-behind children. Nonetheless, there is evidence that the income effect has a differential impact by gender. For instance, Vikram (2023) observes that in India, the effect of parental migration is greater for boys than for girls, as father's migration is associated with higher HfA z-scores only for boys.

In terms of measures at the time of birth, Khan *et al.* (2023) find that women in Bangladesh with a migrant spouse are more likely to have had prenatal care, but this is not linked to delivering at a professional health care facility or the presence of a qualified attendant for birth labor. Neverthe-

less, there is also evidence that remittances alone are insufficient to increase left-behind children's utilization of qualified health care. In fact, some results are puzzling: among children who report a recent illness, Cambodian households that receive remittances are less likely to utilize qualified health care providers (Treleaven, 2019).

Mental health. Most research suggests that left-behind children exhibit poorer measures related to mental health outcomes compared to other children. Lee and Park (2010) show that left-behind children in China demonstrate negative effects with regard to psychosocial well-being, while Zheng et al. (2022) find they have significantly higher levels of depression than migrant children. This difference is more prominent for boys than for girls. Many of the articles attribute these results to the deterioration of the parent-child relationship that occurs when families are separated. For instance, Amuedo-Dorantes et al. (2023) find that immigrant children in the United States whose parents have been deported are more likely to experience post-traumatic stress disorder (PTSD) symptoms as well as higher levels of internalizing (anxiety and depression) and externalizing (aggression) problems relative to children with legal resident parents or even children of undocumented parents who have not encountered immigration enforcement.

Moreover, Wang and Liu (2021) and Wang and Zhu (2021) find adverse spillover effects on the mental health of classmates when there is a higher proportion of left-behind children in the class. This is primarily attributed to a deterioration in the learning environment within Chinese schools. In fact, the authors observe a greater occurrence of peer victimization (bullying) and even a rise in cases of self-injury.

Evidence on this front also shows that parents' absence can lead to severe psychological development issues, an increase in risk-loving behavior, and lower career aspirations. Lee and Park (2010) find that Chinese left-behind children tend more to experience drastic changes in behavior, becoming more anxious and depressed and more prone to impulsivity and aggression. In addition, Kandel and Kao (2001) find that left-behind children tend to have lower career aspirations, which are associated with a reduced desire to pursue university degrees. Moreover, Adunts (2021) observes that in Ukraine, children with a father abroad exhibit lower levels of perseverance compared to other children. This is evident in their tendency to avoid choosing challenging tasks with potentially high rewards. Liu *et al.* (2021) show that, in the long run, Chinese left-behind

children with migrant mothers tend to exhibit reduced levels of conscientiousness and grit along with higher levels of neuroticism (or lower emotional stability). In the short term, when mothers migrate, children typically display decreased levels of conscientiousness, agreeableness, and openness. Furthermore, Luo and Wang (2023) also observe that Chinese left-behind children show less prosocial behavior, which encompasses attributes such as fairness, trust, trustworthiness, and cooperation.³ Finally, Su *et al.* (2013) find that infrequent parent-child communication correlates with higher feelings of loneliness in Chinese left-behind children.

The limited available evidence also indicates a correlation between parental absence due to migration and an increased probability of criminal behavior by left-behind children later in life. According to Cameron *et al.* (2022), this association is observed among Chinese adult males. The authors suggest that childhood experiences of being left behind contribute to diminished educational achievements and a tendency toward risk-taking behavior, both of which are considered contributing factors toward criminal activities.

III.C Early childhood development

The general consensus and evidence are that parental migration causes cognitive delay in left-behind children. For instance, Bai et al. (2022) show that maternal migration in the Chinese context leads to a 6 pp reduction in children's cognitive skills compared to children in the same village without a migrant parent, and Yue et al. (2016) also find negative effects on cognitive development and dietary quality. Even though rural-to-urban migration in China has been key to economic growth, it might entail a significant human capital cost for the next generations. In both studies, the primary determinants of this decline are decreases in parental time and the quality of investment in stimulating activities, along with a reduction in dietary diversity. Similarly, in Mexico, Powers (2011) estimates a structural model to argue that the drop in cognitive skills among left-behind children stems from a shift in their allocation of time towards activities unrelated to cognitive development. Furthermore, Zheng et al. (2023) find that left-behind children in China are not only at a disadvantage compared with other children in the same village, but also com-

³Notwithstanding the preceding point, the paper underscores the positive impact of having access to one parent.

⁴In the Chinese context, the reallocation of labor from rural to urban areas has been a key driver of China's prosperity in recent decades. Because of hukou reforms, migrants face limitations in accessing fundamental public services like public education for their children. As a result, migrant parents are compelled to leave their children in their hometowns, producing tens of millions of "split families" and "left-behind children."

pared with migrant children. They argue that parental supervision and closeness are a vital part of children's cognitive development.

Contrary to the psychological evidence presented earlier, the limited economic evidence offers a different perspective. Specifically, in Nicaragua, Macours and Vakis (2010) find that having a migrant father in the household has no significant impact on cognitive skills, whereas there is a positive effect when the mother migrates. The authors suggest that female empowerment enables a higher proportion of remittances to be allocated to children's development.

IV NATIVE CHILDREN

IV.A Education outcomes

Previous work indicates migration has varied impacts on the educational performance of native children. Effects are generally negative in situations where increased demand for educational services (driven by immigrant flows) does not meet a corresponding increase in supply. This discrepancy often results in overcrowding and strains educational resources, adversely affecting native students. On the other hand, in regions where resources are augmented in tandem with the arrival of immigrants, effects on native children's education outcomes are either negligible or positive. This suggests that the key underlying factor is the ability and willingness of educational institutions to adapt and expand resources to meet greater demand from immigrant populations.

Negative effects. Studies exploring the adverse effects of migration on native children's education outcomes identify two primary factors: increased classroom overcrowding and a decline in the quality of the learning environment. The degradation of the learning environment is evident in several cases. For example, Imberman et al. (2012)'s study on Hurricane Katrina evacuees reveals that their arrival in Houston led to higher absenteeism and more disciplinary issues in secondary schools. Ohinata and Van Ours (2013)'s research suggests that Dutch schools experience more bullying incidents when the share of immigrants per classroom is higher. Similarly, Figlio and Özek (2019) find that after the influx of Haitian migrants to Florida, disciplinary incidents and school suspensions rose. Nevertheless, the last two articles do not find strong evidence of negative spillover effects on the academic performance of native children.

Concerning the overcrowding channel, studies suggest that an excessive number of students per

classroom is associated with a decline in the performance of native students, particularly when there is no compensatory investment to address new educational demand in schools that receive a substantial influx of immigrants. Brunello and Rocco (2013), for example, study the case of 19 countries where immigration waves doubled the number of students in public secondary schools between 2000 and 2009. This shock led to a decrease in PISA scores for natives. Furthermore, these negative effects are shown to be concentrated among male students, children with disadvantaged backgrounds, and underperforming students. Similarly, Green and Iversen (2020) observe that negative effects are concentrated in students at the most risk of underperformance in Norwegian schools. Finally, Contreras and Gallardo (2022) provide evidence that Venezuelan migration led to a decrease in math and reading standardized test scores for male native students in Chile. As a consequence, there has been an increase in native flight by high-skilled students to private schools.

Positive effects. Two key mechanisms are documented in the set of studies identifying the positive impacts of migration on native children's education outcomes. The first is the beneficial spillover from having high-achieving immigrant peers, contingent on the availability of compensatory school funding (Imberman et al., 2012). For instance, Morales (2022)'s research in Georgia illustrates this, showing that a 1% increase in refugee students boosts native math scores by 0.01 standard deviation, an effect amplified by increased funding for schools. In the U.S. context, these positive spillovers predominantly benefit students from disadvantaged backgrounds. This improvement is attributed to exposure to immigrant children who are less disruptive and exhibit better behavior, as noted by Figlio et al. (2021). Similarly, in Türkiye, Tumen (2021) finds that positive impacts on native students stem from competitive incentives. This competition seems to particularly motivate underperforming native students to improve their performance.

The second significant migration-related factor that contributes to positive educational outcomes for native students involves increased perceived returns to education following a rise in immigrant student populations. Hunt (2017) highlights this in the U.S. context, where white students showed a higher likelihood of staying in high school and completing 12 years of education in response to increased immigrant presence. This trend was also observed in Türkiye, where native youth noticeably shifted from balancing work and school to focusing solely on education.

However, it is still unclear which specific sociodemographic group benefits most from this shift in

educational values. Çakır *et al.* (2023) present evidence that the most advantaged group comprises native students with more educated parents, while Tumen (2018) argues that it is male students with less-educated parents.

Neutral effects. A set of articles documents the negligible effects of migration on the educational outcomes of native children, particularly when adequate compensatory funding and appropriate selection mechanisms are in place. For example, Figlio and Özek (2019)'s research on the arrival of Haitian refugees in the United States exemplifies this. The study suggests that schools effectively accommodated the influx of students without detriment to natives, partly due to preemptive measures like employing Haitian-Creole-speaking counselors. Similarly, findings by Van der Werf (2021) further support this argument for the resettlement of Vietnamese students in the United States. The study finds that schools, when provided with additional resources for each Vietnamese student, could prevent the diversion of funds from native students and avoid the negative effects of overcrowding. Lastly, Assaad et al. (2023)'s research on Jordanian schools during the Syrian refugee crisis reveals effective governmental strategies. The opening of new school shifts and the establishment of schools in refugee camps were key measures that successfully mitigated the potential adverse effects of overcrowding. These studies collectively suggest that with thoughtful planning and sufficient resources, schools can manage increased student populations due to immigration, ensuring that the education outcomes of native students are not affected.

Moreover, the negative correlation observed in raw data between an increase in immigrant students and the academic performance of native students can often be attributed to selection issues. Immigrants tend to be placed in areas with schools possessing less desirable characteristics, as documented in Van der Werf (2021). Geay et al. (2013)'s work in England corroborates this argument, finding that immigrant students are typically located in schools with a higher proportion of underperforming native students and a higher teacher-student ratio. By accounting for these factors, the apparent negative impact of immigration on the education outcomes of native students becomes negligible. These results suggest the initial perceived detrimental effects are more due to the characteristics of schools where immigrants are enrolled, rather than the presence of immigrant students per se.

IV.B Native flight from schools

In the context of education, native flight occurs when native parents respond to immigrant inflows by switching their children from public to private schools, or even to public schools with a lower share of immigrant children. This phenomenon often leads to residential and educational isolation of immigrants by reducing native demand for public schools (Cascio and Lewis, 2012).

In the United States, results from various studies suggest native flight is significant. For instance, Betts and Fairlie (2003) estimate that for every four new immigrants in a public school, one U.S.-born student switches to a private school. Similarly, Cascio and Lewis (2012) calculate that a 10% increase in immigrant children leads to a 7.8% decrease in native students' enrollment in Californian public schools. These effects seem to be driven by white children and worsen when immigrants are not English speakers at home. These findings align with the strong selection of U.S.-born students out of schools with higher proportions of immigrants. This highlights why these compositional effects can obscure the interpretation of regression analyses that do not consider this sorting mechanism (Figlio *et al.*, 2021).

This phenomenon is not unique to the U.S. context. In Denmark, Gerdes (2010) shows how in small municipalities a rise in the share of immigrants increases the propensity of Danish parents to enroll children in private schools.⁵ The author suggests that segregation is easier in small municipalities than in large ones where enrolling a child in a private school can be more difficult. Similarly, in Perú, Martínez (2022) finds that native flight is used as a mitigation strategy by parents to counteract the negative effects of immigration on incumbent students. Specifically, they discover that students who switch to private schools tend to be male students with low academic achievement in primary school or female students with high academic achievement in secondary school. Furthermore, cream-skimming effects are also observed in Spain, where more educated native households with higher-achieving children are more likely to switch them to private schools in response to immigration (Farre et al., 2018).

⁵The article refers to private schools as free schools.

IV.C Youth employment

In addition to studies focusing on the impact of immigration on youth employment rates through changes in returns to education, as documented by Çakır *et al.* (2023), Hunt (2017), and Tumen (2021), some articles investigate the effects of immigration on labor markets independent of education outcomes. In the U.S. context, for example, Smith (2012) documents that one primary factor contributing to the youth employment rate decline among Black teenagers was the increase in immigration between 1990 and 2005. Specifically, the author estimates that a 10% increase in the share of low-skill immigrant workers led to a 5 pp decrease in the employment rate of Black teenagers. Nevertheless, Winegarden and Khor (1991) argue that this declines in youth employment rates does not emerge from an increase in undocumented immigrants. They posit that these immigrants are not a labor substitute for native youths since the former usually rely on labor markets most favorable to the undocumented population to find a job.

V FORCIBLY DISPLACED CHILDREN

At the end of 2022, there were more than 108 million forcibly displaced individuals in the world; 20% were children below 17 years of age (UNHCR, 2023). This section reviews the research concerning the impacts of forced migration on children. The distinction between forced and voluntary migrants hinges on the reasons for relocation. While voluntary migrants relocate by choice, forced migrants move due to involuntary factors such as conflicts, natural disasters, or other compelling circumstances. Children who are forcibly displaced merit specific attention due to their heightened vulnerability. They frequently endure violence and disasters, experience traumatic and abrupt migration, leave everything behind, and arrive in environments characterized by uncertainty about their rights and potential discrimination.

Recent evidence on the effects of forced migration largely focuses on child refugees and international forced migrants.⁶ Therefore, we limit our review to this group. This section includes three parts. The first part examines the impacts of international forced migration on children. The evidence suggests that refugee children are extremely vulnerable and lag behind native children in terms of education and health outcomes (at least in the short term). Moreover, refugee children—

⁶A notable exception is Chiovelli *et al.* (2021), who examine the effects of conflict-driven displacement on human capital for Internally Displaced Individuals in Mozambique. The authors find that displaced children register higher investments in education.

especially adolescents—face high risk of school dropout, as their time could be used to generate income, support household chores, or enter into marriage.

The second part investigates how refugee children affect native populations. Results suggest that, as in the case of voluntary migration, the impact of refugee migration on natives largely depends on policy responses to address the consequent challenges. Yet, underperforming native students are at greater risk of being negatively affected by the potential overcrowding effect caused by the arrival of new refugee students in hosting communities. The last part examines findings on interventions to enhance outcomes for both refugee and native children.

V.A Impacts of forced migration on refugee children

This section describes work concerning the disparities between refugee and native children in outcomes such as education, health, and child labor. Native children are the most common comparison group for refugee children as it is difficult to obtain data on peers in their places of origin. The majority of scholarship suggests that refugee children lag behind native children.

Education. Krafft et al. (2022) present evidence on the educational outcomes of Syrian refugee children in Jordan. The study reveals that these children are less likely to enroll in Jordanian schools compared to native children of similar socioeconomic status. Additionally, Syrian refugee children, once enrolled, have a higher propensity to drop out. This trend is more pronounced among boys, primarily because they often seek employment to alleviate their families' financial burdens. However, older girls also face significant disadvantages. They are incentivized to leave school due to increased household responsibilities or the prospect of marriage.

When it comes to comparing educational disparities among refugee children, Ginn (2018) evaluates the educational gaps between Syrian refugees located in camps and those outside. The author documents that enrollment and attendance rates for children in camps are higher. These results are partly attributed to the direct establishment of new schools in camps, coupled with higher transportation costs and enrollment fees at schools outside camps. Interestingly, increased school attendance in camps does not necessarily equate to better academic achievement. This could be explained by the higher repetition rates in schools in camps, indicating a possible concentration of underperforming students in these schools compared to those outside, and the challenges of

hiring and training teachers for new schools in camps, as highlighted by Salemi et al. (2018).

Health. Demirci et al. (2022) study the disparities in health and nutrition among native and Syrian refugee children in Türkiye. Although the authors do not observe differences in infant or child mortality between refugee children born in Türkiye and native children, they do find that refugee infants born in Türkiye have lower birth weight, age-adjusted weight, and age-adjusted height than native infants. When decomposing the effects of weight at birth before and after migration, they find the difference before relocation is greater, suggesting that the persistent adverse effect of being born in a crisis outweighs the possible lack of health supply in the destination country.

Other research has studied the impacts of refugee camps on health outcomes. Rashad *et al.* (2018) find that in Jordan, Palestinian children in refugee camps have lower age-adjusted height scores relative to refugee children living outside camps. The study attributes this difference primarily to the lower asset levels of families in the camps. This economic disadvantage, in turn, leads to reduced investment in the developmental needs of their children.

Lastly, according to Sánchez-Ariza *et al.* (2023), children in households internally displaced by the Colombian conflict exhibit lower mental health levels than other children. This assessment is based on measurements using the Symptom Checklist-90 and the Child Trauma Symptom Checklist for Young Children scales. Interestingly, the authors suggest this phenomenon also extends to children who were not directly affected by the conflict but whose caregivers experienced its consequences. This implies the possibility of an intergenerational transmission of the adverse effects of displacement on children, highlighting the need for intervention.

Child labor. The issue of child labor among refugee children, particularly its extent and impact, remains underresearched due to challenges in gathering reliable data. However, it is evident that refugee children are more susceptible to entering the child labor market, although the magnitude of this phenomenon varies according to the methodologies employed to measure child labor. Sieverding *et al.* (2018) note that in Türkiye, Syrian refugee boys aged 10 to 14 years are 2% more likely to engage in paid work than their peers. On the other hand, Dayloğlu *et al.* (0) find significantly higher incidence of child labor among Syrian refugee boys in Jordan. The study reports that refugee boys aged 12 to 14 years are 17% more likely to be involved in child labor than native

boys. This discrepancy becomes even more pronounced in the 15 to 17 year-old group, where the likelihood increases to 45% compared to native counterparts, highlighting a grave concern regarding the involvement of older refugee boys in the labor market.

Child marriage. Forced displacement and conflict often prompt gains in child marriage. Parents may decide to marry off their daughters for reasons such as family insurance, protection, increased freedom, and adherence to cultural norms. However, research on this issue is quite limited, mostly emerging from development contexts and relying heavily on anecdotal or one-time assessments (Mazurana and Marshak, 2019). Hunersen *et al.* (2020) suggest a potential uptick in early marriage rates among refugees after displacement but highlight that education acts as a protective factor.

V.B Effects on native children

The majority of research focuses on evaluating the impact of refugee children on host communities, with mixed outcomes. However, it is clear that negative consequences are more likely to occur in the absence of adequate measures to mitigate the challenges associated with increased demand for public services, especially in the education sector. This is primarily due to the "overcrowding effect" resulting from the influx of refugee children, which strains existing educational resources and infrastructure.

Studies documenting null effects. Van der Werf (2021) reports that the presence of refugee students in educational settings does not prompt adverse effects on the educational outcomes of native children. The result is particularly noticeable when compensatory measures—such as increased funding, additional counselors, and the provision of night shifts—are implemented. This observation is supported by Figlio and Özek (2019) and Assaad *et al.* (2023), who note that these measures act as safeguards to mitigate potential negative consequences for native children.

Studies documenting positive effects. Some studies find positive outcomes associated with the presence of refugee students. Morales (2022) emphasizes the beneficial impact on educational performance, largely due to the spillover effects of compensatory funding. This suggests that resources allocated to support students from forced migrant backgrounds can also positively influence native students. Furthermore, as mentioned earlier, Tumen (2021) suggests that the increased presence of Syrian refugee students can lead to higher motivation among native children, likely driven

by heightened competition in the academic context. Furthermore, studies by Çakır *et al.* (2023) and Tumen (2021) highlight changes in parental decision-making about their children's education. These changes include higher enrollment rates, influenced by shifts in labor market dynamics and the perceived value of education.

Studies documenting negative effects. The research also uncovers several negative aspects associated with forced migration, similar to those observed in voluntary migration scenarios. Gerdes (2010) and Martínez (2022), for example, document the phenomenon of "Native Flight," which is also common in the context of forced migration. Furthermore, Green and Iversen (2020) point out negative spillover effects on educational performance, with a particular impact on low-achieving students. These findings underscore the necessity for well-thought-out policies and strategies that cater to the diverse needs of different student groups within the educational system, ensuring that all students are adequately supported and none are disproportionately disadvantaged.

V.C Evidence on the effectiveness of interventions to support refugee children

This section outlines the effects of interventions to support refugee children. Most of this research has examined the effects of programs on the refugee population in general without focusing specifically on children. In doing so, however, authors often also examine the effects of those programs on a number of children's outcomes as secondary or exploratory analyses. Results from this work suggest positive effects of cash transfers, programs to facilitate integration (e.g., language courses), and programs that promote social cohesion and diversity awareness.

Evidence on the impacts of cash transfers. De Hoop et al. (2019) examine the impacts of the "No Lost Generation" cash transfer program on the education outcomes of Syrian refugees in Lebanon. This program provided cash assistance to families to cover school commuting costs and compensate households for the potential income their children could have earned. The authors took advantage of the program's random allocation to treated and control schools and found that the cash transfer resulted in a 20% increase in school attendance in treated schools compared to the control group. These findings are significant, particularly because the cash transfer was not contingent on children's attendance and was therefore not monitored by the Lebanese government.

Moreover, Özler et al. (2021) use a regression discontinuity design to examine the effects of the

"Emergency Social Safety Net" in Türkiye, a cash transfer program for Syrian refugees. The authors show that the program caused changes in household composition, with a movement of primarily school-aged children from ineligible to eligible households. This was ultimately reflected in a reduction in poverty and inequality for the overall refugee population. Similar effects on housing recomposition are documented by Miguel *et al.* (2023), who examine the effects of the Norwegian Refugee Council's Urban Shelter Program in Jordan through a randomized controlled trial. The program supports Syrian refugees by granting them housing subsidies. In this case, treated households experienced an increment in the number of boys ages 13 to 17 years in the short run. These effects dissipate in the medium to long run.

Programs facilitating integration. Evidence suggests that policies to facilitate migrant integration, even if focused on the adult member of the household, can have positive effects on children's outcomes. Rude (2023), for example, finds that the introduction of birthright citizenship for Venezuelan children in Colombia has positively affected their educational prospects. The study reveals that enrollment rates in public institutions for Venezuelan children under six years improved by 50%. Similarly, Foged et al. (2022) and Foged et al. (2023) provide compelling evidence of positive intergenerational benefits resulting from language training programs offered by the Danish government to immigrant adults after they were granted refugee status in 1999. These programs led to higher completion rates among their children in lower secondary school.

Programs promoting social cohesion between students. Alan et al. (2021) evaluate an educational program in Türkiye that was designed to foster perspective-taking skills among students with the aim of enhancing social cohesion among peers. Perspective taking, in this context, refers to a cognitive skill that enables individuals to comprehend the goals and intentions of others. In practice, this skill empowers students to consider the perspectives and opinions of their peers, ultimately promoting greater tolerance and acceptance of differences, particularly with respect to refugee students. The findings revealed a dual impact: it reduced incidents of violence, peer victimization, and exclusion in schools with a higher proportion of Syrian refugee children while also producing significant improvements in prosocial behavior and altruism.

Moreover, Tumen *et al.* (2023) evaluate a teacher training program implemented in Turkish schools. This program aimed to enhance teachers' diversity awareness by improving their knowledge of

the immediate needs of Syrian refugee students, enabling the teachers to provide mentoring and create a more conducive classroom learning environment. The authors employ a regression discontinuity design, as assignment into the treatment group depended on the proportion of refugee students in a school. They show that the program effectively halved absenteeism among refugee children during the year of implementation and continued to have a positive impact in the subsequent year. This work exemplifies the importance of social inclusion in diverse populations.

Programs improving mental health and early childhood development. Moya et al. (2022) implemented a randomized trial intervention in Colombia that offers Child-Parent Psychotherapy (CPP) to children and caregivers affected by conflict and forced displacement. The goal of CPP is to restore the mental health of patients and strengthen the child-parent relationship to enhance care and child development. The authors observe positive effects of CPP on maternal mental health, as mothers appeared to be less anxious and depressed, among other conditions. More importantly, CPP was found to enhance child-mother interactions, resulting in a 0.17 standard deviation improvement in child mental health and a 0.21 standard deviation improvement on the early childhood development index.

Similarly, Annan *et al.* (2017) implemented a related intervention for the Burmese displaced population in Thailand. The intervention was designed after the Strengthening Families Program (SFP) to train Burmese parents in caregiving skills while teaching refugee children social skills. The primary objective was to enhance children's psychological outcomes by improving the quality of parental care and communication. The authors found the program cut the likelihood of externalizing problems (e.g., aggressive behavior) and child attention problems. Compared to the control group, the reductions were 0.22 standard deviation and 0.11 standard deviation, respectively.

VI DISCUSSION

This paper examines the impact of migration on children, offering a comprehensive analysis of its effects throughout the process. This includes children left behind, migrant children (including those forcibly displaced), and native children. The findings reveal that migration's impact on children's outcomes is complex and context dependent, influenced by household demographics and particularly by policies to support migrant populations and their host communities. Policies that facilitate service adjustments in response to migrant arrivals and that promote integration

are highly beneficial for all children involved. Conversely, enforcement-oriented policies tend to hinder children's development, particularly among immigrant children, by reducing service uptake and damaging the mental health of children and their parents.

The review also draws attention to the vulnerability of left-behind children, who despite observing positive income shocks might still be negatively affected by parental absence. Notably, the evidence highlighted the large negative effects of parental absence on cognitive outcomes, mental health, and socioemotional behaviors. Future research and programming should cover effective ways to support these children. Specifically, the Chinese case raises a crucial question about the trade-off between relocation policies to spur growth and the human capital costs of such policies.

Forcibly displaced children are one of the most vulnerable groups since they not only experience migration but do so unexpectedly, often after traumatic events. Yet, without representative and longitudinal data to comprehensively measure children's outcomes, it is difficult to diagnose the precise challenges they face. This includes an effective evaluation of their cognitive and non-cognitive development relative to native children and its impact on future outcomes, such as adult income. These issues are particularly important in developing countries and present a significant opportunity to expand our knowledge in the future.

Finally, more evaluation of programs that effectively target migrant and forced migrant children's outcomes will be extremely valuable in guiding policymakers about the most effective programs to support these populations and their hosts. This is particularly crucial for long-term outcomes because the majority of existing work concerns the immediate impact of such programs due to various constraints. Even though the forcibly displaced population requires urgent attention, there is wide scope for action in understanding the long-term impacts of these experiences during their teenage years and into adulthood.

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A SUMMARY OF PAPERS INCLUDED IN THIS REVIEW

Table A1. Evidence on the Effects of Migration on Migrant Children.

Authors	Journal or Outlet	Research Question	Methods	Results
Aktas et al. (2022)	B.E. Journal of Economic Analysis and Policy	Investigates the educational choices of first- and second-generation immigrant students at the transition between lower-secondary school and high school.	MPL	Immigrant students are less likely to choose challenging aca- demic track high schools compared with their Italian counter- parts. They are more likely to be formally advised by their teach- ers to choose vocational or technical high schools rather than aca- demic tracks, especially in the case of female students.
Alesina et al. (2022)	NBER Working Paper	Is there teacher bias in grading immigrants and native children in middle schools?	RCT	Math teachers with stronger stereotypes give lower grades to immigrants compared to natives with the same performance. Literature teachers do not differentially grade immigrants based on their own stereotypes.
Amuedo-Dorantes and Arenas-Arroyo (2019)	Journal of Policy Analysis and Management	Studies the immigration enforcement impact on the structure of families to which many of the de- ported fathers of U.Sborn children belonged.	Pooled OLS	The average increase in immigration enforcement during the period raised by 19% the likelihood that Hispanic U.Sborn children might live without their parents in households headed by naturalized relatives or friends unthreatened by deportation.
Amuedo-Dorantes and Juarez (2022)	Demography	Effects of family deportation on children's education and health outcomes.	Pooled OLS with municipal- ity FE	Relative to children born in Mexico, immigrant U.Sborn children are at a considerable disadvantage in terms of health care access, but less so in terms of education
Amuedo-Dorantes and Lopez (2015)	American Economic Review: Papers & Proceedings	How intensified interior immigration enforce- ment impacts the likelihood that children of unauthorized immigrants will repeat a grade or drop out of school	OLS with inter- action	Intensification of interior immigration enforcement raises young children's probability of repeating a grade and their likelihood of dropping out of school.
Amuedo-Dorantes et al. (2018)	Journal of Public Eco- nomics	Studies the effect of immigration enforcement policies on the household income of unauthorized parents	Pooled OLS with county and time FE	The average yearly increase in interior mmigration enforcement over that period raised the likelihood of living in poverty of households with U.S. born children by 4%.
Amuedo-Dorantes et al. (2023)	Migration Studies	Documents the detrimental effect of stricter immigration enforcement on children's educational outcomes and the benefits of safe-zone policies	OLS	Restricting immigration authorities' access to schools and pro- viding counseling on immigration-related issues are crucial pol- icy components in strengthening children's focus, effort, expec- tations, parental involvement, and relationships
Amuedo-Dorantes, et al. (2022)	American Journal of Health Economics	Comparison of health outcomes of infants with likely undocumented mothers before and after the intensification of immigration enforcement within US counties	DiD	Intensified enforcement, especially during the third trimester, increases the likelihood of low birth weight (¡2,500 grams)
Arenas Arroyo and Schmidpeter (2022)	IZA Discussion paper series	Studies the spillover effects of immigration en- forcement policies on children's human capital	DiD and event study	English language skills of US-born children with at least one un- documented parent are negatively affected by the introduction of immigration enforcement policies
Arendt et al. (2021)	Working Paper	Evaluates a reform focused on improving local language training for those granted refugee status on or after January 1, 1999.	RDD	Evidence of higher completion rates of lower secondary school and lower probability of crime for male children with both par- ents exposed to the reform.
Aslund et al. (2015)	Labour Economics	How does age at migration affect social integration in adulthood?	FE	Migrants who were older when they arrived are less likely to live close to, work with, and marry natives
Barban and White (2018)	International Migration Review.	Effect of generational status and length of residence on the transition to secondary school among immigrants	MPL	Children of immigrants are more likely to have inferior outcomes on the middle school exam and to enroll in vocational and poly- technic schools
Bleakley and Chin (2010)	Journal of Applied Economics	Does English proficiency (given by time of arrival) affect social assimilation outcomes of immigrants?	IV	English proficiency raises the probabilities of being divorced, marrying a US native, having a more educated and higher earning spouse, having fewer children, and, for some groups, living outside of ethnic enclaves.
Bohlmark (2008)	Labour Economics	What is the role of age at immigtation for school performance gap between native and immigrant pupils in Sweden?	OLS, comparis- son of sibling- difference and cross-sectional estimates	The critical age of arrival is nine, above which there is a strong negative impact on performance. Girls outperform boys.
Bohlmark (2009)	International Migration Review	Track childhood immigrants born between 1972 and 1976 over time from adolescence (at 16) to adulthood (at 30), and study the role of age at immigration for educational and labor market outcomes.	Pooled OLS	Age has a strong negative impact on school performance at the age of 16, but disadvantaged childhood immigrants (lack of native language skills) recover strongly in terms of educational achievement.
Bronchetti (2014)	Journal of Public Eco- nomics	Studies the changes in public health insurance eligibility for immigrant and native children from 1998 and 2009.	LPM	Elegibility expansions increase immigrant children's use of pre- ventive and ambulatory care and decreased emergency care in hospitals, while estimated effects for children of natives are neg- ligible.
Cahan et al., 2001.	International Migration Review	What is the relationship between age at immigration and educational achievement at age 14 in Israel between 1952 and 1970?	OLS	Monotonic decrease in achievement as a function of immigration age starting at the age of 7, which is considerably stronger for the Verbal subtest than for the Mathematical subtest.
Carlana et al. (2022)	AEA Papers and Proceedings	"Role of teachers' implicit stereotypes toward immigrants in explaining their high-school track recommendation to students."	OLS	"Teachers with negative stereotypes toward immigrants are more likely to recommend low-quality high schools to immigrant students and less likely to encourage them to attend top-tier tracks, compared to natives with similar ability and background characteristics."
Carlana et al. (2022)	Econometrica	Study of the educational choices of children of immigrants in a tracked school system.	Heterogeneous treatment ef- fects using a causal forest.	Immigrants in Italy enroll disproportionately into vocational high schools, as opposed to technical and academically-oriented ones, compared to natives of similar ability.
Cockx (2018)	Agricultural Economics	How maternal migration affects child nutrition	Pooled OLS with individual FE	Maternal migration is associated with improved weight-for-age and lower rates of underweight.
Colding et al. (2009)	Economics of Education Review	Explains the gap in educational attainment be- tween immigrant children and natives, by deter- mining barriers in each educational stage.	Dynamic dis- crete model	Dropout rates from vocational upper secondary education are much higher among children of immigrants and strengthening family characteristics reduces the dropout rates.
Cortés (2006)	Economics of Education Review	What is the relationship between age at ar- rival and immigrant-receiving high schools on the academic performance of first- and second- generation immigrant children?	Pooled OLS	Test score gap between first- and second-generation immigrant children decreases the longer first-generation immigrant children reside in the United States.

Authors	Journal or Outlet	Research Question	Methods	Results
Currie (2000)	University of Chicago Press	The effects on Medicaid eligibility on coverage and utilization is that those children that are most likely to be eligible are less likely to take up coverage.	OLS	Children of immigrants are more likely than other children to be eligible for medicaid.
Dahl et al. (2021)	Working Paper	What happens when immigrant girls are given increased opportunities to integrate into the workplace and society, but their parents value more traditional cultural outcomes?	DiD and RDD	The introduction of birthright citizenship lowers measures of life satisfaction and self-esteem for immigrant girls, especially for Muslims, where parents are likely to prefer more traditional cultural outcomes than their daughters.
De Feyter and Winsler, 2009	Early Childhood Research Quarterly	Examines multiple indicators of young immigrant children's school readiness during their prekindergarten year.	OLS	There is variation in school readiness according to nativity-based factors. First- and second-generation immigrants lagged behind children in non-immigrant families in cognitive and language skills but excelled by comparison in socio-emotional skills and behavior.
Dee and Murphy (2020)	American Educational Re- search Journal	Effects of local immigration enforcement on school enrollment.	DiD	Local ICE partnerships reduce the number of Hispanic students by 10% within 2 years. Partnerships enacted before 2012 displaced more than 300,000 Hispanic students.
Felfe et al. (2020)	Journal of Labor Eco- nomics	Examines whether the introduction of birthright citizenship in Germany affected immigrant children's education outcomes.	DiD	Increase in immigrant children's participation in noncompulsory preschool education, positive effects on key developmental out- comes and increase in the likelihood of them attending the aca- demic track of secondary school.
Felfe et al. (2021)	Labour Economics	What is the role played by age at migration among migrants and on parental time in the host country for 2nd generation migrants.	OLS	Being ten years old instead of two years old at the time of migra- tion increases the fraction of immigrants among colleagues and neighbors. The probability to marry another immigrant increases by almost two thirds of the average homogamy rate in the sam- ple if arriving at age ten instead of age two.
Foged et al. (2023)	Journal of Public Eco- nomics	Evaluates if a reform focused on improving local language training for those granted refugee sta- tus has an impact on schooling and crime out- comes of their children.	RDD	Improvement in earnings and job market outcomes permanently, lower secondary school completion rates and a decrease in juvenile crime rates for their children.
Lemmermann and Riphahn (2018)	Economics of Education Review	Effect of age at migration on subsequent educational attainment in the destination country.	OLS with family FE	Significant effects of age at migration on educational attainment and a critical age of migration not above age 6. The educational attainment of female immigrants responds more strongly to a high age at immigration than that of males.
Liu et al. (2010)	Journal of Econometrics	What is the effect of interrelationships among school inputs and parental inputs on child development?	Structural mod- elling following the Todd and Wolpin (2003) article	The impact of school quality measures diminishes by factors of 2 to 4 after accounting for the fact that families may choose where to live based on school characteristics and labor market opportunities.
McKenzie and Rapoport (2011)	Journal of Population Eco- nomics	Focuses on identifying the overall impact of mi- gration on educational attainment, estimating the net impact of these various effects.	Probit IV	Living in a migrant household is estimated to lower the probability of completing high school by 13% for males and 14% for females.
Palermo and Mikul- ski (2014)	Early Childhood Research Quarterly	How peer effects and the amount of English ex- posure received from them contributes to low- income, Spanish-speaking children's English vo- cabulary and letter-word skills in the spring.	OLS	Positive peer interactions and English exposure levels were pos- itively correlated with children's English vocabulary, letter-word skills, learning behaviors and English oral proficiency.
Rangvid (2007)	Education Economics	Examines potential sources of the immigrant- native test score gap, focusing on school charac- teristics that lead to it.	OLS with school FE	Differences in socioeconomic status account for only 50% of the ethnic test score gap and immigrant students attend schools with at least as favourable conditions as natives.
Santillano et al. (2020)	AEA papers and proceed- ings	Do immigration raids lead to a decrease in Hispanic Head Start enrollment?	DiD	Post-raid Head Start enrollment for Hispanic children decreased by over 10%.
Schnepf, (2007)	Journal of Population Eco- nomics	Examines differences in educational achieve- ment between immigrants and natives across 10 OECD countries.	OLS	In English-speaking countries, immigrants fare best, while in Continental European countries they fare worse compared to natives.
Stillman et al. (2012)	Economic Inquiry	Comparison of anthropometric measures of mi- grant children who enter New Zealand through a random ballot with children in the home coun- try of Tonga who didn't participate.	OLS	Migration increases height and reduces stunting of infants and toddlers, and BMI and obesity among 3 to 5-yr-olds. These impacts occur because of dietary change rather than direct income effects.
Thomas (2007)	International Migration Review	Child mortality and socioeconomic status among migrants and nonmigrants.	Negative bino- mial regression model	Among migrants, child mortality decreased faster as socioeco- nomic status increased than among nonmigrants.
Triventi (2020)	International Migration Review	Do teachers grade students with a migration background (SMBs) less generously than native students with comparable academic skills?	Blinder-Oaxaca method	SMBs were graded less generously by teachers than were natives with comparable ability. Most relevant factors are language spoken at home and family socioeconomic resources, but some students' attitudes towards school also matter, especially in lower secondary school.
Vazsonyi and Killias (2001)	Criminal Justice and Be- havior	Participation of first and second generation migrant youth in crime.	OLS	First-generation adolescent migrants are more likely than natives to participate in crime activities.
Villarreal and Gonza- lez (2016)	International Journal of School and Educational Psychology	Whether participation in school-based extracur- ricular activities would predict social and behav- ioral outcomes asociated with school social capi- tal.	Hierarchical lin- ear regressions	Participation in sports-related activities was associated with in- creased feelings of school membership and peer prosocial orien- tation.
Watson (2014)	American Economic Jour- nal: Economic Policy	Effects of local immigration enforcement on health system take-up.	DiD	Heightened federal immigration enforcement reduces Medicaid participation among children of noncitizens, even when children are themselves citizens.

Table A2. Evidence on the Effects of Migration on Children Left Behind.

Authors	Journal or Outlet	Research Question	Methods	Results
Adunts (2021)	Working paper	Explores the short-run effect of current paternal absence due to circular migration on the perseverance skills of their children left behind.	OLS with class- room FE	Children whose fathers are still working abroad are approximately seven percentage points less likely to choose challenging high-reward tasks after receiving negative performance feedback.
Amuedo-Dorantes et al. (2010)	ANNALS of the American Academy of Political and Social Science	Impact of remittances on schooling.	IV	Remittances raise school attendance for all children regardless of whether they have household members abroad.

Authors	Journal or Outlet	Research Question	Methods	Results
Amuedo-Dorantes et al. (2023)	AEA Papers & Proceed- ings	The effect of the Biden Administration surge fa- cilities on unaccompanied migrant children.	Multinomial logit	Surge facilities created capacity in traditional shelters, enabling them to accommodate tender-age children and reducing the number of children in foster care.
Antman (2011)	American Economic Re- view: Papers & Proceed- ings	Impact of international migration on children's outcomes through the increase in female spousal control.	DiD	Households which still have a head in the United States devote a lower fraction of resources to boys.
Antman (2011)	Journal of Development Economics	Explores the short-run effects of a father's U.S. migration on his children's schooling and work outcomes in Mexico.	IV with individ- ual FE	In the short run, children reduce study hours and increase work hours in response to a father's U.S. migration. The effect is driven by boys of 12-15 years old.
Antman (2012)	IZA Discussion Papers	Estimation of the causal effect of parental migration on children's education.	FE	Positive effect of paternal U.S. migration on education for girls.
Bai et al. (2022)	World Development	Effect of maternal migration on cognitive development of preschool aged children.	Pooled OLS with child FE	Maternal migration increases the probability of cognitive delay by six pp.
Cameron et al. (2022)	Journal of Economic Be- havior & Organization	Examines whether parental absence in child- hood as a result of migration is associated with increased criminality in adulthood.	OLS with con- trol functions and region FE	Parental absence due to migration is found to increase the propensity of adult males to commit crimes.
Edwards and Ureta (2003)	Journal of Development Economics	The effect of remittances from abroad on house- holds' schooling decisions using data for El Sal- vador.	Cox proportional hazard model	Remittances have a large, significant effect on school retention.
Feng et al. (2022)	Applied Economics	Explores the long-term effect of childhood left- behind experience due to parental rural-to- urban migration.	IV	Left-behind children have a significantly lower income in adulthood.
Hildebrandt et al. (2005)	Economia	Impact of migration on human capital accumulation, focusing on child health outcomes.	IV	Migration has positive effects on children's health outcomes.
Kandel and Kao (2001)	International Migration Review	Examines how children's grades and educa- tional aspirations correspond to the international migration experience of their families.	OLS	U.S. migration from Mexico by family members is negatively associated with university aspirations for children growing up in Mexico.
Kandel (2003)	Education, Family and Population Dynamics	Does international migration improve the wel- fare of migrants' children who grow up in migrant-sending countries?	OLS and Logit	Remittances had no apparent impact on children's likelihood of leaving school.
Khan et al. (2023)	BMC Pregnancy and Childbirth	Effect of partner migration on use of antenatal care and delivery at a health care facility.	OLS	Odds of receiving antenatal care were significantly higher for births occurring to women with a migrant spouse.
Lee and Park (2010)	Gansu Survey of Children and Families Papers	Impact of migration by fathers on the develop- ment of children left behind in rural villages.	IV	Fathers' migration reduces enrollment by sons, has significant positive effects on the academic outcomes of daughters, but has negative effects on the psychosocial well-being of both boys and girls.
Liu et al. (2021)	Journal of Asian Eco- nomics	Effects of parental migration on children's non- cognitive abilities.	OLS with PSM	Mother's migration is particularly harmful to the development of non-cognitive abilities.
Luo and Wang (2023)	China Economic Review	Effect of parental migration on pro-social behaviour.	OLS	Both being left behind and migrating had a negative effect on the children's prosocial behaviour.
Macours and Vakis, 2010.	World Development	Effects of seasonal migration for investments in early childhood development.	IV	Seasonal migration of fathers is uncorrelated with ECD, but seasonal migrant mothers in the data tend to bring a large share of income.
Mu and De Brauw (2015)	Journal of Population Eco- nomics	Impact of parental migration on the nutritional status of young children left behind in rural areas.	Individual FE	Parental migration has no significant effect on the height of children, but it improves their weight.
Powers (2011)	IDB paper	Impact of the migration of a household member to the U.S. on the cognitive development of children left behind in Mexico.	Structural esti- mation: Todd and Wolpin (2003) value- added model	Negative effect on cognitive skills when a parent migrates.
Saleemi (2023)	Feminist Economics	Investigates the impact of men's migration on expenditure by left-behind households on children's education.	Pooled OLS with FE	In households from which men migrate for periods longer than six months, the share of education expenditures spent on girls is up to 31% higher than average.
Su et al. (2013)	Child: Care, Health and Development	Differences in psychological adjustment by pat- terns of parental migration and the level of par- ent-child communication.	OLS	Compared with children with one parent migrating, children with two parents migrating were separated from their parents at younger ages, for longer periods, and saw their migrant parents less frequently.
Treleaven (2019)	Health Policy and Plan- ning	Are children under age five whose household re- ceives remittances more likely to utilize higher quality health care providers?	Pooled OLS with individual FE	Treatment expenditures are lower among households with re- mittances, while transportation expenditures do not vary signif- icantly by remittance status.
Vikram (2023)	Population Research and Policy Review	Association between fathers' migration and children's nutritional outcomes.	Pooled OLS with commu- nity FE	Fathers' migration is associated with higher height-for-age z- scores for boys but is disadvantageous for girls.
Wang and Liu (2021)	Journal of Interpersonal Violence	Examines the effect of subjective socioeconomic status (SES) on the relationship between peer victimization and nonsuicidal self-injury (NSSI) among left-behind children.	OLS	Peer victimization was positively related to NSSI among left- behind children, but not among non-left-behind children.
Wang and Zhu (2021)	Labour Economics	Examines the causal spillover effects of left- behind children on their classmates living with parents in rural China.	OLS with grade-by- school FE	The proportion of left-behind children in class has a significant negative impact on the mental health of their classmates.
Wassink and Viera (2021)	Demography	Effect of parental migration during childhood on children's lifetime educational attainment.	OLS with PSM	Parental migration during childhood is associated with increased years of schooling and higher probabilities of school.
Yue et al. (2016)	Working Paper	Effects of maternal migration on development, health, and nutritional outcomes in early child-hood.	Pooled OLS with individual FE and lagged dependent variables as controls	Significant negative effects on cognitive development and indicators of dietary quality.
Zheng et al. (2022)	Frontiers in Psychology	Examines the association of internal migration with depression among migrant and left-behind children.	OLS	Migrant children had a significantly lower level of depression than left-behind children.

Table A3. Evidence on the Effects of Migration on Native Children.

Authors	Journal or Outlet	Research Question	Methods	Results
Assaad et al. (2023)	Journal of Development Economics	Impact of Syrian refugees on the educational outcomes of Jordanians.	DiD	No evidence that Syrians significantly affected the educational outcomes of Jordanians.
Betts and Fairlie (2003)	Journal of Public Eco- nomics	Do native-born American families respond to in- flows of immigrants by sending their children to private school?	Instrumental variable probit regression.	For every four immigrants who arrive in public high schools, it is estimated that one native student switches to a private school.
Brunello and Rocco (2013)	Economics of Education Review	Does the increased share of immigrants in schools and classes affect the performance of natives?	Weighted OLS	The size of the estimated effect is small: doubling the share of immigrant pupils in secondary schools would reduce the test score of natives by 1–3.4%.
Cakir et al. (2023)	Journal of Human Capital	Examines how the arrival of Syrian refugees affects school enrollment and employment of working-age native children	DiD and IV	Finds a significant drop in employment, largely due to children shifting from work-school balance to education only. School en- rollment rises for boys, especially those with educated parents.
Camerota and Jensenius (2010)	Center for Immigration Studies	Impact of migration on the decline in teen labor force participation.	Pooled OLS	The teenage summer labor force participation rate declined from 64% in 1994 to 48 percent by 2007. The number of U.Sborn teenagers not in the labor force during the summer increased by 3.4 million from 1994 to 2007.
Cascio and Lewis (2012)	American Economic Jour- nal	Has low-skilled immigration to the U.S. contributed to immigrants' residential isolation by reducing native demand for public schools?	IV	Between 1970 and 2000, the average California school district lost more than 14 non-Hispanic households with children to other districts in its metropolitan area for every 10 additional house- holds enrolling low-English Hispanics in its public schools.
Contreras and Gallardo (2022)	Economics of Education Review	Examines how the mass inflow of Venezuelan and non-Spanish-speaking migrants to Chile has influenced the learning outcomes of native stu- dents.	DiD	It shows a decrease in standardized test scores, especially for male students. Said effects are considerably greater in Reading when examining the migration of non-Spanish speakers.
Farre et al. (2018)	Labour Economics	The effects of immigration on the education sys- tem of the receiving country, with an empha- sis on the consequences for the public-private school choice of natives.	IV	Increases in immigrant density at the school level triggered an important native flight from tuition-free public schools toward private ones.
Figlio and Özek (2019)	Journal of Labor Eco- nomics	Effects of a large influx of Hatian refugees on the educational outcomes of incumbent students.	OLS and IV	Zero estimated effects of refugees on the educational outcomes of incumbent students.
Figlio et al. (2021)	NBER Working Paper	Effect of the exposure to immigrants on the educational outcomes of US-born students.	Pooled OLS with FE and IV	Finds that the presence of immigrant students has a positive effect on the academic achievement of US-born students, especially for students from disadvantaged backgrounds.
Geay et al. (2013)	The Economic Journal	Impact on the educational outcomes of native English speakers at the end of primary school	Pooled OLS with school FE	Non-native speakers are more likely to attend school with disad- vantaged native speakers and sorting of non-native speakers into schools with less desirable characteristics.
Gerdes (2010)	SSRN Electronic Journal	Explores changes in the immigrant population in Danish municipalities between 1992-2004.	Pooled OLS with municipal- ity FE	Increase in native Danes propensity to enroll their children in free schools (private schools) as the share of children with immigrant background becomes larger in their municipality of residence.
Gould et al. (2009)	The Economic Journal	Examine the impact of immigrant concentra- tion during elementary school on the long-term academic outcomes of native students in high school.	IV	Presence of immigrants in a grade had an adverse effect on the chances of passing the high school matriculation exam, which is necessary to attend college.
Green and Iversen (2020)	SSRN Electronic Journal	Investigates the impact of immigrants on native test score performance.	Pooled OLS with FE	Finds marked negative effects of refugee children on the test score performance of their native school children classmates.
Hunt (2017)	The Journal of Human Resources	Impact of immigration on the high school completion of natives in the United States.	IV probit regression	Natives' probability of completing 12 years of education or of being enrolled is increased by a greater presence of adult immi- grants with fewer than 12 years of education.
Imberman et al. (2012)	American Economic Review	Impact of enrolled evacuees on incumbent students' educational performance and attendance.	Pooled OLS with FE	Student achievement improves with high achieving peers and worsens with low achieving peers. An increase in the inflow of evacuees raised incumbent absenteeism and disciplinary problems in Houston's secondary schools.
Martínez (2022)	Job Market Paper	Effect of the sudden influx of Venezuelan mi- grant children on natives' performance and na- tive flight.	Pooled OLS with fixed ef- fects	Incumbents' parents respond by transferring their children to higher-quality schools with fewer migrants. A 10% point in- crease in exposure to migrants increases the probability of switching by 1.5 pp in primary and 1.1 pp in secondary.
Morales (2022)	Economics of Education Review	Whether attending school with refugees affects the academic outcomes of nonrefugee students	Pooled OLS with FE	A one pp increase in the share of refugees raises math test scores of non-refugee students by 0.01 sd.
Ohinata and Van Ours (2023)	The Economic Journal	Analysis of the share of immigrant children in the classroom affects the educational attainment of native Dutch children.	Pooled OLS with FE	"Dutch students face a worse learning environment when they are studying with more immigrant students in the classroom (increased incidents of bullying with more immigrant students in the classroom)."
Smith (2012)	Journal of Labor Eco- nomics	Explores the explanations of the falling employment to population ratio of high-school youth.	IV	The increase in the population of less educated immigrants has had a considerably more negative effect on employment outcomes for native youth than for native adults.
Tumen (2019)	IZA Discussion Paper Series	Impact of Syrian refugees on high school enroll- ment rates of native youth in Turkiye	DiD and IV	Finds that high-school enrollment rates increased 2.7-3.6 pp among native youth in refugee-receiving regions. Most of the in- crease in high school enrollment comes from young males with lower parental backgrounds, which is consistent with the hy- pothesis that the main mechanism operates through the low-skill labor market.
Tumen (2021)	Journal of Development Economics	Refugee influx increase the intensity of human capital accumulation among native adolescents who are enrolled in school?	DiD and IV	The Math, Science, and Reading scores of Turkish adolescents increased following the Syrian refugee influx.
Van der Werf (2021)	Working Paper	Studies how the inflow of refugees at the end of the Vietnam War affected native children's aca- demic achievement and post-secondary educa- tional attainment.	Difference model	Precise zero or small positive effects on native children's test scores and educational attainment.
Winegarden and Khor (1991)	The Review of Economics and Statistics	Analysis of the relationship between undocumented-alien population and unem- ployment among youth and minority workers.	Simultaneous equation model	Undocumented immigrants tend to concentrate in states where labor markets for these marginal groups are most favorable.

Table A4. Evidence on the Effects of Migration on Forcibly Displaced Children.

Authors	Journal or Outlet	Research Question	Methods	Results
Alan et al. (2021)	Quarterly Journal of Economics	Evaluation of the effect of an educational pro- gram that aims to build social cohesion in ethni- cally mixed schools by developing perspective- taking ability in children.	RCT	Finds that the program significantly lowers peer violence and victimization on school grounds. The program also reduces the likelihood of social exclusion and increases interethnic social ties in the classroom.
Daioglu et al. (2021)	IZA Discussion Paper Series	Effect of refugee status on child labor.	OLS	The incidence of paid work is remarkably high among boys. While 17.4% of 12-14 year olds are in paid employment, a staggering 45.1% of 15-17 year olds receive payment. Girls' employment rates are 4.7% and 8.1%, respectively, for the same groups.
De Hoop, et al. (2019)	The Journal of Development Studies	Documents the impact of a cash transfer programme – the No Lost Generation Programme (NLG) and locally as Min Ila ('from to') – on the school participation of displaced Syrian children in Lebanon.	RCT- RDD	"Substantive impacts on school attendance among enrolled children, which increased by 0.5 days to 0.7 days per week, an improvement of about 20 per cent relative to the control group."
Demirci et al. (2022)	IZA Discussion Paper Series	Examines disparities in health and nutrition among native and Syrian-refugee children in Turkiye.	OLS	Refugee infants born in Turkiye have lower birth weight and ageadjusted weight and height than native infants. Results mainly driven for less prenatal care and worst for children born in the sending country.
Florian et al. (2021)	Social science & Medicine	The role of immigrant parents' educational selec- tivity in shaping birth outcomes.	Linear and lo- gistic regression	There is a health advantage for children of immigrants compared to native despite lower socioeconomic status.
Ginn (2020)	Center for Global Development	Effects of refugee camps residence.	OLS with Propensity Score built with a Generalized Random Forest	For primary school-age children, camps have a positive effect on school attendance. However, show that additional attendance has not yet led to additional attainment.
Krafft et al. (2022)	Journal of Development Studies	This paper examines how educational outcomes of Syrian refugees in Jordan have evolved from pre-conflict to during conflict and displacement.	Discrete time hazard models	While during the 2011–2013 conflict and initial displacement period school dropout increased, enrollment rates and school progression in Jordan subsequently recovered to pre-conflict levels.
Rashad et al. (2018)	University of Alberta Working Paper	Explores the drivers of the height gap, measured by the height for age z-score, among children re- siding in refugee camps and non-camp residents.	Blinder-Oaxaca decomposition technique	Low asset-based economic status among refugees is the main driver of the height disadvantage among refugee children.
Rude (2023)	The World Bank Economic Review	Analyzes how the introduction of birthright citi- zenship for Venezuelan children in Colombia af- fects statelesness and educational participation during early childhood.	Differences in discontinuity	The reform has positive effects on the participation rates of children below six years old.
Salemi et al. (2018)	Economic Research Forum Working Paper	Overview of the current services available to Syrian refugee youth and children in Jordan.	Multi-method strategy	There are persistent barriers to services for Syrian young people in education, cash assistance, nutrition, health, livelihoods and water, among others.
Sieverding et al (2018)	Economic Research Forum Working Paper	Assesses how educational enrollment, attain- ment, and dropout of Syrian refugees in Jordan have been affected by conflict, displacement, and educational opportunities and experiences after arrival to Jordan.	Logit regression and survival analysis	Enrollment rates, at least through 2016, have recovered to pre- conflict levels for basic education among the group of Syrians in Jordan in 2016.
Tumen et al. (2023)	Journal of Human Resources	Evaluates whether a teacher training program designed to raise awareness among primary and secondary school teachers in Turkiye based on a cascade-training approach - is effective in improving school outcomes of refugee students.	RDD	The program almost halves the absenteeism gap between native and refugee students, and its effect persists into the next academic year, albeit fading in size.
Van der Werf (2021)	Working Paper	Studies how the inflow of refugees at the end of the Vietnam War affected native children's aca- demic achievement and post-secondary educa- tional attainment.	Difference model	Precise zero or small positive effects on native children's test scores and educational attainment.
Özler et al., 2021	Journal of Development Economics	Evaluates the impact of the Emergency Social Safety Net (ESSN) in Turkiye.	Survey data collection and 'value of treat- ment'	The program quickly caused substantial changes in household size and composition, with a net movement of primarily schoolaged children from ineligible to eligible households, and a sharp decline in poverty and inequality in the entire study population.
Annan et al. (2017)	Prevention Science	Examines the effectiveness of a parenting skills intervention on mental health outcomes	RCT	One month after the program, children in the treatment condition showed significant reductions in externalizing problems but no significant treatment effect in internalizing problems.
Moya et al. (2022)	Working Paper	Randomized trial of a community-based psy- chosocial program that promotes maternal men- tal health as an outcome and as a pathway to foster the nurturing child-mother relationships that can protect young children from the effects of conflict and forced displacement.	RCT	Finds positive effects of 0.15 sd on a maternal mental health index; 0.23 sd on an index of child-mother interactions; 0.17 sd on early childhood mental health; and of 0.21 sd on a early-childhood development index.

Note:
OLS: Ordinary least squares
IV: Instrumental variables
RCT: Randomized control trials
LPM: Linear probability model
FE: Fixed effects
DiD: Difference-in-difference
RDD: Regression discontinuity design
PSM: Propensity score matching;