

IUSSP 2025 submission:

Title: Labor migration and children's educational progression in Kyrgyzstan

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Short Abstract – According to economic theories of labor migration, household migration exerts positive influence on children's health and well-being via economic remittances. Yet, there is mixed evidence that labor migration boosts the human capital acquisition of children of migrants who remain in sending communities. This paper considers the complex relationship between migration from the household and going beyond children's school enrollment to consider grade progression and attainment. We test competing hypotheses whereby migration can support children's school enrollment and grade progression while also reducing academic attainment among older youth via early school leaving. Recognizing that the impacts of migration may be particularly large for children and adolescents in contexts where economic development lags and migrant remittances are a significant contributor to household survival, the analyses rely on longitudinal data from the Life in Kyrgyzstan (LiK) survey. Results indicate children's educational trajectories are indeed negatively associated with labor migration from the household during adolescence with less impact on their progression earlier in school careers.

Extended abstract:

Introduction: Migration plays a key role in the well-being of children and households around the world. The impacts of migration may be particularly large for children and adolescents in contexts where economic development lags and migrant remittances are a significant contributor to household survival (Chakraborty and Pandey 2022). Although there is increasing awareness that migration of others can lead to shifts in children's activities, engagement in schooling and orientation towards the future, few migration studies incorporate direct measures of these outcomes for children and adolescents over time. Relying on two waves of survey data collected in Kyrgyzstan, this paper addresses competing hypotheses about the impact of household labor migration and children's schooling going beyond simple measures of school enrollment to illustrate where along children's educational trajectories migration has the largest impact.

Background: According to the New Economics of Labor Migration (NELM) perspective, labor migration is a household strategy to diversify risk, support local livelihoods, and invest in children's health and well-being. Remittances, economic support sent by migrating household members, may be used to support children's schooling by subsidizing school costs (i.e., school fees, uniforms, supplies). Remittances may also be used to substitute for households' dependence on children's labor, thereby

extending the ages at which children remain in school. Consistent with this theoretical perspective, research from a variety of sending communities around the world have shown that migrants send, and households use, remittances to benefit children (Dávalos et al. 2017; Edwards and Ureta 2003; International Organization for Migration 2022; Ivlevs, Nikolova, and Graham 2019; Wang, Hagedorn, and Chi 2021). But there is mixed evidence that migration, and remittance receipt, ultimately increase educational achievement and attainment. This has led to research into other mechanisms that may offset the apparent benefits of migration for children's well-being.

One theoretical mechanism through which migration may encourage schooling and attainment is the "social remittances" received by households from migrants. These include messages and information migrants convey to their households about the returns to education that may encourage families to keep young children in school rather than engaged in alternative domestic or agricultural labor. But these messages may also include information about the benefits of migration and some studies find that adolescents reduce their commitment to completing secondary education because they anticipate their own migration (Kandel and Kao, 2001). Similar results are found in Central Asia where lower educational attainment is observed among those who migrate when compared to those who remain in their origin countries who are more likely to move on to tertiary education (Abdulloev, Epstein, and Gang 2020). In this case, we could observe larger positive impacts of household labor migration on children's school progression at younger ages but negative impacts on children's education at older ages.

Psychological perspectives provide another set of mechanisms through which migration may impact children's well-being. These studies assess how the absence of migrants, particularly migrating parents, can lead to distress and reduce children's educational engagement and achievement. Interviews with families in Kyrgyzstan reveal concerns about children's distress when parents migrate (Critelli et al. 2021). But negative emotional responses do not necessarily result in poorer educational aspirations or outcomes. For example, in Mexico, father's migration has a negative impact on children's educational aspirations but in households where the absent father covered children's expenses, educational aspirations remained as high as observed among children in households where both parents are present (Nobles 2011). In this case, we will need to consider the relationship between children and migrants and the degree to which migrants send remittances.

This paper seeks to address the complexity of the family life course in which both migration and educational progression unfold. The analyses go beyond much of the prior work that assesses education at one point in time following the onset of migration. Rather, we analyze educational progress and changes in migration over time. The analyses also go beyond prior work to consider educational trajectories and progression through school. For example, household labor migration may be positively associated with

children's school enrollment while exerting negative pressure on children's time, reducing their regular attendance and performance in school and ultimately reduce educational attainment (Suárez-Orozco, Suárez-Orozco, and Todorova 2008). Children who are not on track for grade progression (i.e., discontinuous attendance) or who are retained in lower grades (i.e., grade repetition) due to their academic performance are less likely to complete secondary education. On the other hand, migration may be associated with more enrollment and engagement among younger students but still be negatively associated with educational attainment for adolescents and those transitioning to adulthood.

Context and Data: The Kyrgyz Republic has an established reliance on labor migration, both internal and international, with economic remittances from migrants contributing significantly to the overall economy. Following the collapse of the Soviet Union, Kyrgyzstan experienced an economic crisis and high unemployment. The period was marked by a decrease in education and intergenerational educational mobility (Brück and Esenaliev 2018). This economic collapse also furthered the flow of labor migrants out of the country and increased household dependence on migrant remittances. Although Russia remains the top destination for Kyrgyz migrants, destinations have diversified since 1991 with many migrants in neighboring Kazakhstan, Türkiye, UAE, Germany, the United States and Korea (International Organization for Migration 2022). At the local level, this reliance on international and internal (rural to urban) migration impacts children who are instrumental actors in agricultural livelihoods and provide significant domestic and caregiving labor.

The data for this paper come from the Life in Kyrgyzstan (LiK) survey, a longitudinal survey of approximately 3,000 households from across the country that includes detailed information on household income, expenditures and migration (Brück and Esenaliev 2018; Chakraborty and Pandey 2022; Wang et al. 2021). The data also includes sociodemographic information on all household members including children. We follow children who are present in households at the 2016 wave of the LiK through 2019 to observe changes in school enrollment, grade progression and, for the older children, educational attainment.

For all analyses, we are attentive to the age patterns and gender differences in the role of migration on children's educational trajectories. In Kyrgyzstan, like many other countries in Central and South Asia, girls face more limited opportunities and encouragement for economic and political engagement and may, in return, receive less support for their educational goals (Chicherina 2022). In this case, even if educational aspirations are lower among boys, the returns to migration may be more positive for boys' educational progression and attainment than for girls. The preliminary analyses are limited to children over age 6 in 2016 and estimate interactions with age and household labor migration in 2016 and gender and household labor migration in 2016.

Preliminary analyses: Table 1 provides an initial view of the association between youth grade progression in 2019 and household labor migration in 2016. Households are coded as engaged in labor migration in 2016 if at least one person from the household is away at an international destination for work.

Approximately 13% of households with children in the target age range for our analyses included labor migrants in 2016. For the preliminary analyses, we simplify the measure of educational progress in 2019 to three categories that reflect youth enrollment and on-time progression through school (i.e., enrolled in a grade level expected for their age¹).

Table 1: Prior labor migration from the household and grade progression of youth in Kyrgyzstan, LiK 2016 & 2019.

| <i>Educational progression in 2019</i> | <i>All</i> | <i>HH labor migration in 2016</i> | <i>No HH labor migration in 2016</i> |
|--|------------|-----------------------------------|--------------------------------------|
| In school with typical grade progression | 79.0% | 77.4% | 79.1% |
| In school but behind in grade | 11.6% | 9.8% | 11.8% |
| Out of school | 9.5% | 12.8% | 9.0% |

Source: Life in Kyrgyzstan Survey, 2016 & 2019. n = 2,123

Overall, children and adolescents who lived in a household with a current labor migrant in 2016 are less likely to be enrolled school at all ($p < .01$) when compared to those in non-migrant households. This is particularly notable among girls in migrant households who are the most likely to be out of school when compared to their peers in non-migrant households (13.8% v. 9.1%; $p < .01$). We also observe expected age differences in school enrollment with attrition from school increasing around age 15 (e.g., under 4% of youth ages 12-14 are out of school compared to 14% of 15–17-year-olds). This is also variable by household migration status (e.g., 13% of children aged 15-17 years old in non-migrant households are no longer enrolled in school by 2019 compared to 16% of 15–17-year-olds in migrant households). However, we do not observe significant differences in lagging grade progression (i.e., more grade repetition or delayed entry to formal education) when comparing youth with labor migration from the household in 2016 to those in non-migrant households.

The preliminary multivariate analyses are conducted with a multinomial logistic regression model predicting these categories of educational progress in 2019 based on household resources and labor migration in 2016. Table 2 presents a simplified model with measures for child age and sex and including

¹ Acknowledging variation in birth month and school enrollment as well as some variability in age at first school entry, children are considered ‘on time’ within a two-year moving window (e.g., children aged 10 are considered on time if enrolled in any grade level 4 or above. Children aged 9 are considered ‘in school but behind in grade’ if they are enrolled in grade below level 4. This conservative approach results in over 80% of the sample considered ‘on time’ in grade progression.

variables for household wealth (index of assets in the home in 2016) and ethnicity (Kyrgyz, Uzbek, Russian, Dungan, Other).

Table 2: Preliminary multinomial logistic regression models predicting educational progression in 2019 from household labor migration in 2016

| | <i>Behind in grade progression vs. typical grade progression</i> | <i>Out of school vs. typical grade progression</i> |
|---|--|--|
| <i>Child's age in 2019</i> | 1.10*** | 1.31*** |
| <i>Male (vs. Female)</i> | .97 | .94 |
| <i>Household wealth in 2016</i> | 1.04 | .85** |
| <i>Household head ethnicity (vs. Kyrgyz)</i> | | |
| <i>Uzbek</i> | .51** | 1.56 |
| <i>Russian</i> | .96 | .78 |
| <i>Dungan</i> | .71 | 1.2 |
| <i>Other</i> | .85 | 1.2 |
| <i>Household labor migration in 2016 (vs. none)</i> | .92 | 1.6* |

Note: *p<.05 ** p<.01; ***p<.001; Sample includes 2,123 children in 1,223 households; Relative Risk Ratios presented; Models adjusted for non-independent observations within households with robust SEs.

Source: Life in Kyrgyzstan Survey, 2016 & 2019.

The preliminary results are consistent with the hypothesis that household labor migration spurs school attrition, particularly among older youth (interactions not shown). But the analyses do not demonstrate an association between labor migration and grade progression among younger children as expected. Gender differences are also not significant in these preliminary models.

The final paper goes beyond these preliminary models by examining the educational trajectories of children over time and changes in labor migration between 2016 and 2019. We can condition educational progression in 2019 on school enrollment and grade level in 2016. Further, the LiK data allow us to construct a much more comprehensive picture of labor migration rather than relying on a single indicator of ‘any’ migration from the household. For example, we can identify the relationship between migrants and children (i.e., migrating parents vs. other relatives from the household) and details about economic remittances in 2016 and 2019. This will provide a more robust test of our hypotheses.

One limitation of the LiK data is that they do not provide information on the aspirations and goals of parents and children in migrating households, a component of social capital and social remittances. Therefore, we will complement the LiK analyses with a small survey collected in Kyrgyzstan during the

summer of 2024 that directly asked youth and caregivers about current education and migration and their aspirations for the future in both domains. These interviews provide more insight into the migration and educational aspirations expressed by adults and youth in households engaged in migration today.

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