Economic swings, political instability and internal migration in Kyrgyzstan*

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Abstract

Individual-level studies of the effects of economic fluctuations and political instability on migration are scarce and most focus on international migration. Implications of economic and political instability for internal migration, a massive phenomenon throughout the world, have not been well examined. Using recent nationally representative survey data from Kyrgyzstan, we examine variations in levels of internal migration and relate them to the economic and political instability in that Central Asian nation in the first decade of this century. Event-history models predicting yearly risks of migration detect no clear association of these risks with episodes of heightened political instability but show a decrease in the risks in response to the strongest economic shock of the observation period. The results also point to some instructive differences across types of area of residence, education, employment, gender, and ethnicity. These findings are interpreted within the context of complex intersections of politics, economy, and culture in this transitional post-Soviet setting.

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Introduction and conceptualization

Whereas the effects of economic swings on migration within or toward developed countries have been relatively well studied, little is known about such effects on internal migration in less developed contexts. In addition to the paucity of adequate data, research on the influence of macroeconomic fluctuation on migration in developing settings faces challenges of more fundamental analytical nature. Thus in many developing countries the effects of global economic oscillations on individual wellbeing are often indirect and are conditioned on these countries’ economic dependence on more developed countries (e.g., the flow of international migrant remittances). In addition, global economic swings are often asynchronous with local economic cycles and, in many cases, with periodic outbursts of political instability. Local job and housing market constraints and traditions of migration are also important factors that may mediate to impact of global economic fluctuations. Moreover, due to the nature of distribution of political and economic power and resources in some countries, the effects of economic fluctuations often vary along ethnolinguistic and regional lines at least as much as along conventional (from the developed world’s perspective) socioeconomic axes.

These complex processes are especially poorly understood in the nations that gained independence after the collapse of the Soviet Union in 1991. The unique legacies of the socialist system—residential registration requirements, inflexible labor markets, and pervasive shortage of housing—have compounded the complexities inherent in the effects of economic fluctuations and political perturbations on the scope, destinations, and patterns of migration.

An important feature of the independent history of some of these nations, especially of those on the southern fringe of the post-Soviet space, is a dramatic increase in international migration. Most of these migration flows have been directed from Central Asia and the Caucasus toward the
Russian Federation, where massive mineral resources and shrinking population has generated the need for outside labor. International migration in the region, its connection with economic and political development, and its effects on both sending and receiving areas have been increasingly addressed in the scholarly literature (Agadjanian, Nedoluzhko, and Kumskov 2008; Agadjanian and Sevoyan 2013; Gerber and Torosyan 2013, Schmidt and Sagynbekova 2008). Studies of international migration in Kyrgyzstan and Central Asia point to its highly ethnic nature in the early post-Soviet period reflecting the disproportionate outflow of ethnic minorities of Slavic origin to Russia (Schuler 2007). More recently, international migration has involved a growing share of natives moving to Russia and other economically attractive destinations such as Kazakhstan as temporary labor migrants (Abazov 1999; Schmidt and Sagynbekova, 2008; Schuler 2007; Schuler and Kudabayev 2004).

However, internal migration within Kyrgyzstan and other Soviet successor nations, which has also intensified since the demise of the U.S.S.R., has not attracted comparable attention. Yet, internal migration flows have been of non-negligible and probably growing scale. Many patterns and determinants of internal migration in the region have been universal; yet it has also been colored by the unique historical, socioeconomic, and environmental context of Central Asia. Thus, it has been argued that in a country like Kyrgyzstan much of internal movements have been directed from rural to urban areas, especially the capital Bishkek and surrounding region. In addition, in a mountainous country like Kyrgyzstan, altitude has played an important role with the population moving away from the typically less hospitable and economically stagnant high-altitude areas (Schuler 2007).

The objective of this paper is two-fold: to examine how economic and political tribulations might have influenced internal migration trends in Kyrgyzstan; and to explore variations in those
influences across several axes, namely gender, area of residence, education, employment, and ethnicity. To address this objective, we combine an analysis of economic and political macrodynamics with what we conceptualize as social group-specific experiences, opportunities, and insecurities that these macrodynamics generate.

Economic downturns have been historically associated with decrease in migration (e.g., Cooke 2012; Ferrie 2003; Rosenbloom and Sundstrom 2004), and we expect to capture a decline in migration in responses to the local repercussions of the global economic crisis. There is much less evidence to hypothesize an effect of political upheaval on migration. A big theoretical challenge here is that political turbulence often translates into economic downturn, and vice versa; separating the effects of political instability from that of economic decline is therefore often difficult, if not impossible. Besides, the effects of political upheaval may be shorter and more localized than those of an economic downturn. Our goal with respect to the effect of political turbulence is therefore exploratory: we want to see whether any meaningful connections with the two coups/revolutions might transpire in population-based migration survey data.

In addition to detecting the overall effects of societal cataclysms of economic and political nature, we want to relate these effects to more conventional variations in migration propensities. Thus, there is little disagreement in the migration literature that economic forces, such as the imbalance of employment opportunities between sending and receiving settings, are central drivers of voluntary migration, both international and internal. For internal migration, employment and income disparities between rural and urban areas have determined the predominant directions of migrant flow in both historical western settings and contemporary developing settings, including Kyrgyzstan (Harris and Todaro 1970; Schuler 2007; Schuler and
In this study, we examine internal migration risks across three types of areas of residence—large cities, small cities and towns, and rural areas.

Migration has also been shown to be selective on individual human capital characteristics, especially education. We therefore look at variations in migration risks across different levels of education. In addition, migration propensities are conditioned by employment characteristics; specifically unemployed individuals are more likely to migrate than those who are employed. In this study we compare migration propensities among those gainfully employed outside-the-home and those unemployed.

Migration processes throughout the world are increasingly gendered. While internal migration historically has been dominated by men, the share of women among migrants has been rising in most countries, and in some of developing settings women have come to outnumber men among internal migrants (e.g., Camlin, Snow, and Hosegood 2013). Women’s and men’s migration expectations, motivations, and decisions, however, often differ. In this analysis we compare internal migration risks between men and women and examine possible variations in these differences in response to the dramatic changes in the economic and political environments.

Finally, ethnicity can also be an important dimension of demographic behavior, especially in multiethnic societies such as those of Central Asia, where titular ethnic groups may differ from ethnic minorities in terms of cultural and demographic baggage and economic and political stakes. In addition to the already mentioned ethnic-specific patterns of international migration, ethnic differences have been observed in other aspects of demographic behavior in Central Asia (e.g., Agadjanian and Qian 1997; Agadjanian and Dommaraju 2011; Agadjanian et al. 2008).
Setting

Kyrgyzstan, a multi-ethnic low-income nation in Central Asia of 5.5 million people with a GNI per capita of 990 USD (2,200 USD in PPP), which since its birth after the disintegration of the Soviet Union more two decades ago has lived through spells of massive economic ups and downs and considerable political instability. Whereas the collapse of the Soviet rule led to dramatic declines in economic outputs and incomes throughout the post-Soviet space, Kyrgyzstan’s economic collapse was among the most dramatic. Like the rest of the post-Soviet region, Kyrgyzstan has experienced an economic recovery since the later 1990s, but unlike the rapid economic growth in some part of the region, Kyrgyzstan’s economic upturn has been relatively modest. Besides, in the first decade of this century, Kyrgyzstan lived through two violent changes of power— a coup d’état known as the “Tulip Revolution” in 2005, which overthrew the government of President Akayev, and the 2010 coup, which dethroned President Bakiyev, Akayev’s successor. In the wake of the second violent change of government, Kyrgyzstan also experienced large-scale ethnic violence, primarily between Kyrgyz, the nation’s titular and largest ethnic group, and the Uzbek minority.

Figure 1 illustrates fluctuations in Kyrgyzstan’s annual GDP growth rate over the past two decades. It illustrates the collapse of the nation’s economy in the first half of the 1990s and an unsure pace of recovery thereafter. Although the figure offers evidence of a decline in the national GDP growth rate after the 2008 global recession, a decline lasting into the 2010, the year of the second coup d’état and widespread violence, it also shows nearly as dramatic drops in 2002 and then in 2005 (the year of the first coup).

Figure 1 here
The collapse of the U.S.S.R. triggered massive migration outside this former Soviet Republic, first characterized mainly by permanent emigration of ethnic Russians and other groups of European origin (Kumskov et al. 1997), and later by increasing labor migration that has included a growing number of Kyrgyz, Uzbeks, and other indigenous groups, which in the Soviet era were characterized by very low migration rates (Ergeshbayev 2006; Kumskov 2002; Schmidt and Sagynbekova 2008). As in other developing countries with large-scale labor out-migration, Kyrgyzstan’s economy and its residents’ wellbeing are highly dependent on the ebb and flow of migrant remittances: thus it has been argued that the global financial and economic crisis of 2008-9 affected the country mainly through a decline in international migration and reduction in migrants’ employment, earnings, and remittances (Lukasheva and Makenbaeva 2009). However, the effects of the global crisis, not to mention possible effects of the political upheavals that Kyrgyzstan experienced in the first decade of the century, have not been adequately addressed. Our study seeks to start filling this gap.

Data

The study uses data from a nationally representative household survey conducted in Kyrgyzstan in the end of 2011—the beginning of 2012. A total of 2032 households were selected through a multistage cluster sampling procedure. In each household, a randomly selected resident aged 18-49, was interviewed. The survey questionnaire was administered face-to-face and included a variety of questions on the respondent’s and their household characteristics. Among other information, the questionnaire included detailed questions on respondent’s migration history: for each town or village where he/she spent at least three continuous months, the respondents were asked the name and location of that town/village, month and year of the move, main occupation
right before arriving there, reasons for moving, with whom they moved, and main occupation while living there.

Method

The analysis of internal migration takes advantage of detailed retrospective migration data collected in the survey. We fit a discrete time logistic regression model in which migration within Kyrgyzstan in a given year $t$ is the event of interest. Exposure to risk of migration starts at age seventeen (typical age of high school graduation) or in 2002 if a respondent reached the age of 17 before that year. We choose to focus only on the period of approximately ten years preceding the survey because the exposure to risk of migration and correspondingly the number of migration events decrease significantly in the sample one goes farther back into the past, thus threatening the stability of statistical estimates. Besides, theoretically we are interested in migration risks during the period of the socioeconomic recovery after the early post-Soviet slump.

We exclude from the analysis years that respondents spent outside Kyrgyzstan as these are periods of non-exposure to the risk of internal migration. Also, we do count non-voluntary migration, such as migration due to military draft, as internal migration events.

Because we seek to relate the yearly risk of migration to changes in the country’s economic and political environment, we include a set of dummies for calendar years from 2002 to 2011. We then compare migration risks between men and women following our conceptualization of the gendered nature of economic and political stimuli to migration. To test whether migration risks vary between men and women across the observation span, we fit a model that includes interaction terms between gender and each calendar year under observation. A similar approach
is used to examine variations across type of area of residence in year \( t-1 \) (operationalized as a trichotomy—large city, small city/town, or rural), educational attainment in year \( t-1 \) (basic secondary, or 8-9 years of school; complete secondary, or 10-11 years of school; secondary special, or vocational education; and higher education and above), gainful employment in year \( t-1 \) (employed vs. unemployed), and time-invariant ethnicity (Kyrgyz vs. non-Kyrgyz).

In addition to the predictors of interest, several other covariates are included in all models. The time-varying control for respondent’s age and age squared in year \( t \), marital status (married or not) and the number of children. As marriage and childbearing may interact with migration dynamically (Nedoluzhko and Agadjanian 2010), these time-varying controls are lagged by one year to guard against possible reverse causality. In addition, the models control for prior migration experience—separately for internal and international migration. In the person-year file, each of the two variables takes the value of 1 if a migration move (internal or international, respectively) occurred at least once prior to year \( t \); it takes the value of 0 otherwise.

We start with a model that includes only additive effects of period, predictors, and controls. Then, to examine possible variations in the effects of predictors of interest across years of the observation span, we fit separate models in which we include the interaction terms for calendar year and the predictors. In all, four interactive models are fitted, corresponding to the five predictors of interest—area of residence, education, employment, gender, and ethnicity.

**Results**

*Yearly variations in migration risks*
Figure 2 displays the percentage of the survey respondents who experienced internal migration moves in every year between 2002 and 2011 (each year’s figure is based only on respondents who were seventeen or older in that year). Although the migration rate is generally quite low, the overall rise over the observation span is noticeable. The year of the first revolution, 2005, does not stand out in any way. The graph shows a noticeable dip in migration rate in 2009, the year when the effects of the global economic recession would have been most palpable, followed by a rise in 2010. The percent of respondents declines again in 2011, but the last year’s figure may be biased because of the time of survey (a sizeable portion of interviews was conducted before the end of 2011) and because at least some recent internal migrants may not have settled in places of destination to be captured into the survey sample.

Table 1 presents the parameter estimates from an event-history model predicting migration risks. The model contains only additive effects of all predictors. The results generally confirm the trend shown in Figure 1. Overall, the yearly risks of migration increase over the observation period, with the difference from the reference year, 2002, becoming statistically significant starting in 2007. The year of the first violent change of power, 2005, does not stand out in any way; the risks of migration drop somewhat between 2008 and 2009 (migration risks in 2009 are no longer statistically different from those in the reference year) but then recover strongly in the following year.

The results for other predictors are noteworthy. The risks for those residing in a small city or a town in the previous year are significantly larger those for residents of either large cities or
rural areas. Having only incomplete secondary education by the year prior to that of the year of exposure significantly raises the risks of migration compared to having completed secondary school, and in fact, compared to in any of the other level of educational attainment. Not surprisingly, being gainfully employed in the previous year shows a significant negative association with the risk of migration, regardless of other factors. Interestingly, women are significantly more likely to migrate than men regardless of other factors. Finally, Table 1 suggests a strong contrast between the titular ethnicity and other ethnic groups in migration risks: the latter are significantly less likely to migrate internally regardless of other factors.

Table 1 here

Table 1 also shows that migration risks first increase and then decline with age. Not surprisingly, the number of children is negatively associated with migration; being married shows a similar tendency but the corresponding coefficient is not statistically significant after controlling for the number of children. Finally, while prior internal migration experience shows no association with migration risks, prior experience of international migration is a strong and significant positive predictor.

The results for the predictors of interest presented in Table 1 are from the additive effects-only models. To examine possible variations in the effects of predictors of interest across years of the observation span, we fit separate models in which we include the interaction terms for calendar year and each of the five predictors. The parameter estimates from these models are not presented here (they are available upon request). Instead we show these corresponding results graphically as predicted risks of migration.

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Migration risks by type of area of residence

Figure 3 depicts migration risks by type or area of residence in the previous year. Echoing the results presented in Table 1, residents of both large cities and rural areas reveal comparably low internal migration risks, and these risks show minimal variation across the observation span. The curve for small city/town residence is strikingly different. First, the risks of migration among those living in small cities and towns are consistently larger than those of the rest of the sample in almost all years under observation. Second, and most intriguingly, these risks show a slight dip in 2005, the year of first political upheaval, and then a larger drop between 2008 and 2010, when the effects of global economic recession and of the political crisis of 2010 were to be felt.

Figure 3 here

Migration risks by educational level

Yearly migration risks by educational attainment in previous year are shown in Figure 4 (note the difference of the Y-scale from Figure 3). The figure displays a stark contrast between those with only basic (incomplete) secondary education and the rest of the sample: the former have consistently higher risks of migration in all but the last observation year. Migration risks among that group show some yearly variation but drop visibly in 2009, when the effect of the economic crisis should have been most felt. The risks stabilize in the following year and then drop greatly in 2011. The migration risks among the three other groups, despite some apparent volatility, are very similar to each other, with no clear temporal pattern emerging. Specifically, none of the three groups shows an expected contraction of migration risks in response to the global economic
crisis (with the exception of a barely noticeable decline in migration risks among those with university and post-university degrees).

Figure 4 here

*Migration risks by employment status*

Figure 5 depicts internal migration risks by employment status in the previous year. Paralleling the results of the additive effect-only model, the unemployed are more likely to migrate throughout the entire observation period (except for a puzzling drop in the risk of migration in 2007). Moreover, while migration risks stayed flat among employed respondents, they shot up among the unemployed after 2007. This rapid increase appeared to slow down in 2009, but then resumed vigorously in the last two years under observation. There was also a subtle decline in risk of migration among the employed in 2009. While any connection between employment status and the effects of the economic crisis appears tenuous at best, no association between employment status and years of political instability in propensity to migrate internally transpired in that analysis.

Figure 5 here

As a word of caution, we should note that the share of the unemployed in the person-year sample declines rapidly in the last two years under observation. This may reflect some sample distortions (unemployed individuals may have been less likely to be captured in the sample or may have had higher refusal rate) or increased exit of the unemployed abroad.
Migration risks by gender

Figure 6 shows yearly migration risks predicted by a model that includes interactions between gender and calendar years. As can be seen, men’s migration probability peaks right before the global crisis, drops as the crisis unfolds, and then picks up again as the impact of the crisis wears off. On the contrary, women’s migration risks appear to increase as the crisis unfolds and to level off in the post-crisis period. Overall, the male and female curves are almost mirror images of each other - when the risk of male migration rises, that of female migration declines, and vice versa, suggesting that male and female migration may be mutually compensatory. Yet, compared to the earlier observed variations on such dimensions as the area of residence or employment, the detected gender differences are relatively modest.

Figure 6 here

Migration risks by ethnicity

Predicted migration risks contrasting ethnic Kyrgyz with the rest of the sample are shown in Figure 7. While the overall trends for both ethnic segments point to a slight increase in migration risks, members of the titular group show consistently higher risks of migration throughout the observation span. The detected yearly variations in migration risks do not yield themselves to a straightforward interpretation. Both segments show some decline in 2009 (the peak of the global crisis fallout), but the risks among the titular ethnicity recover quickly in the following year, only to drop again in the last year of the observation span. In comparison, the migration risks among non-titular groups show some recovery only 2011. Most puzzling, however, is a pronounced dip
in migration risks among those groups in 2006, a year after the first tumultuous transition of power.

Figure 7 here

Discussion and limitations

The direction, magnitude, and timing of migration response to societal turbulence remain subjects of considerable debate in the literature. Besides measurement problems, this debate is clouded by theoretical ambiguities surrounding the nature of societal tumult, the pathways of its influence on individual and household well-being, and the resources available to and engaged by individuals and household to navigate the turbulent economic and political waters.

The results of preliminary analyses presented in this paper point to some response of internal migration to the effects of the global economic crisis; this response is generally in a predicted direction—migration risks seem to decline when the effects of an macroeconomic slowdown are most to be felt. At the same time, the analysis does not reveal any clear association between the would-be political turmoil and migration risks. Of course, the economic and political upheavals whose effects we chose to examine are very different in their societal manifestations—the effects of global economic crisis, especially an “indirect” variety as in the case of Kyrgyzstan, are typically less immediately palpable but are also longer lasting than those of violent political crisis. Besides, as we noted earlier, economic and political problems often go hand-in-hand, and the second coup d’état in 2010 and surrounding violence may be linked to the lingering effects of the global economic recession. Yet, regardless of the migration response to the economic downturn and the variation of this responses across several axes detected in our analysis, we
should also acknowledge a gradual increase in internal migration in Kyrgyzstan during the first decade of the century, even the levels of internal mobility there, as in the rest of the post-Soviet world (e.g., Andrienko and Guriev 2004) remain low in comparison to western countries.

Several limitations of the current study must be acknowledged. First, it cannot account for the effects of economic and political development on international migration. International and internal migration processes are closely intertwined. Our models control for respondents’ prior international migration experience, and this experience shows a positive association with migration risks. However, with the data at hand we are obviously unable to examine internal and international migratory moves as alternative and competing choices. However, even with respect to internal migration the survey may have missed some recent internal migrants who had not yet established a permanent residence at places of destination or whose newly established residence location had slipped through the cracks in the survey sampling frame. For example, large areas of samostroi (irregular housing) surrounding the capital Bishkek and inhabited largely by recent internal migrants may not have been well accounted for in the sampling frame. Another limitation of the data and, consequently, of the presented analysis, is a relatively small sample size that prevents sound separate analyses for different ethnic minorities. In this study, we combined all non-Kyrgyz into one category, but cultural characteristics, socioeconomic circumstances, and political stakes are likely to differ between such groups as Uzbeks and Russians. An analysis of these differences would require larger datasets or oversampling of minority groups.

Finally, in the next stage of analysis, we plan to add an examination of regional patterns of internal migration. Regional divisions, especially those between the North and the South have
been important in Kyrgyzstan’s economic and political history are likely to have impacted internal migration directions and even its timing.
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Figure 1. Kyrgyzstan’s annual GDP growth rate

Source: The World Bank

Figure 2. Percent of respondents who migrated internally in a given year

Note: each year's figure includes only respondents who were seventeen or older in that year
Figure 3. Predicted risks of migration by type of area of residence in previous year

Figure 4. Predicted risks of migration by educational attainment in previous year
Figure 5. Predicted risks of migration by employment status in previous year

Figure 6. Predicted risks of migration by gender
Figure 7. Predicted risks of migration by ethnicity

![Graph showing predicted risks of migration by ethnicity from 2002 to 2011. The graph compares predicted risk for Kyrgyz and Other ethnicities. The Kyrgyz line shows a general upward trend with some fluctuations, while the Other line indicates more volatility with peaks in 2007 and 2008.](image-url)
Table 1. Parameter estimates from an event-history logistic regression model predicting migration risks

<table>
<thead>
<tr>
<th>Covariate</th>
<th>Estimate</th>
<th>SE</th>
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<tr>
<td>Intercept</td>
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<td>0.676</td>
</tr>
<tr>
<td>Calendar year</td>
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<td></td>
</tr>
<tr>
<td>(2002)</td>
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<td></td>
</tr>
<tr>
<td>2003</td>
<td>0.021</td>
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<td>2004</td>
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<tr>
<td>2006</td>
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<tr>
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<td>0.218</td>
</tr>
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<td>2008</td>
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<td>0.215</td>
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<tr>
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<tr>
<td>2010</td>
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<td>0.216</td>
</tr>
<tr>
<td>2011</td>
<td>0.545</td>
<td>0.225</td>
</tr>
<tr>
<td>Age in year t</td>
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<td>0.048</td>
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<tr>
<td>Age in year t, squared</td>
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</tr>
<tr>
<td>Woman [man]</td>
<td>0.290</td>
<td>0.100</td>
</tr>
<tr>
<td>Area of residence in year t-1</td>
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<td></td>
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<tr>
<td>Big city</td>
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<td>0.114</td>
</tr>
<tr>
<td>Small city/town</td>
<td>1.244</td>
<td>0.131</td>
</tr>
<tr>
<td>[Rural]</td>
<td></td>
<td></td>
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<tr>
<td>Complete level of education in year t-1</td>
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<td></td>
</tr>
<tr>
<td>Basic secondary [Complete secondary]</td>
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<td>Secondary special (vocational)</td>
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<td>Higher or post-graduate</td>
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</tr>
<tr>
<td>Employed in year t-1 [not employed]</td>
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<tr>
<td>Ethnic Kyrgyz [other ethnicity]</td>
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<td>0.124</td>
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<tr>
<td>Was in a marital union in year t-1 [was not in a marital union]</td>
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<td>0.145</td>
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<td>Number of children in year t-1</td>
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Notes: Reference categories in brackets; significance levels: ** p<.01, * p<.05, † p<.1.