

Elders Left Behind and Migration in Kyrgyzstan

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Labor Migration

It is estimated that around 650,000 to 750,000 citizens work abroad. Almost 80 percent of Kyrgyz migrants work in Russia and 15 per cent in Kazakhstan, with the majority of migrants coming from the southern regions.

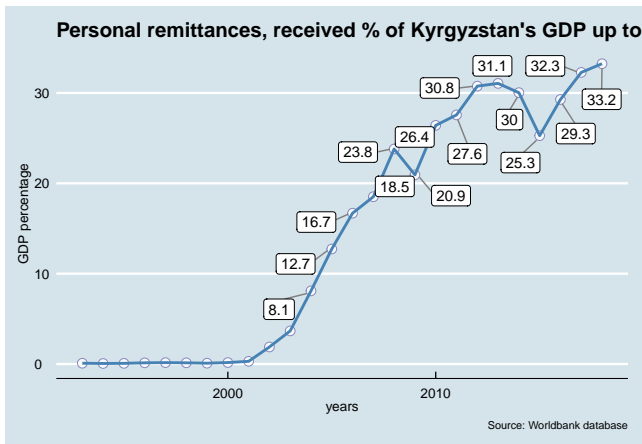


Figure: GDP-Remittances relation

Health of elderly parents left behind by adult children

- Plethora of researches have been focused on international migration from Kyrgyzstan and its impact on migrant's children that were left behind[TH14][ANR08].
- However, there was a little research on the vice-versa relationship between adults becoming migrants and their elderly parents being left behind.

The relationship between children's migration and the health of elderly dependents left behind is uncertain due to conflicting results from research.

- 1 In both China and Mexico[Ant13][HY14], the migration of adult children has been found to result in lower self-reported health status among elderly parents.
- 2 In contrast, a study for Moldova[BPS15] finds evidence of a beneficial impact of the migration of adult children on the physical health of elderly family members who stay behind and finds no significant impact on their mental health or cognitive capacity.

Qualitative research by Social Research Center of AUCA

Mehrigul Ablezova, Emil Nasritdinov, Ruslan Rahimov [ANR08]

The research has established two most significant conclusions: one is the confirmation of the extreme poverty conditions that elderly people in these two poorest regions of Kyrgyzstan find themselves and the second is about the questioning of migration as the strategy for coping with this poverty.

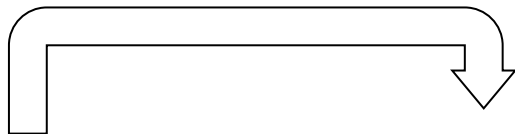
Channels

When adult children leaves household leaving elderly parents behind, the influence to health of elderly parents could come through different channels and whether the shock is positive or negative can depend on the duration of absence of adult child.

- Remittances improves lives of elderly parents?
 - ▶ What fractions goes to elderly parents?
- Household labor allocation
 - ▶ Who looks after grandchildren?
 - ▶ Who does household chores?
- Psychological effects
 - ▶ Misses their migrant children
 - ▶ Afraid for their migrant children

Subjective well-being and objective indicators of health

what is the effect?



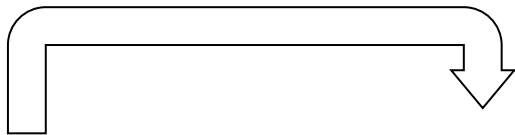
Dummy whether parent
has migrant child

X

Dummy for
poor health

Y

what is the effect?



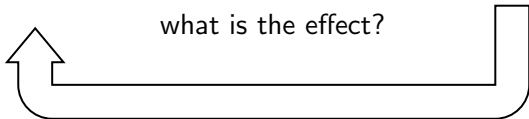
Dummy whether parent
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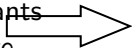
Y

what is the effect?



Ratio of migrants
in the village

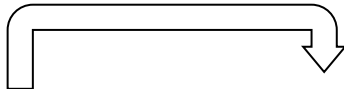
Z



Dummy whether parent
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X

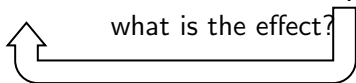
what is the effect?



Dummy for
poor health

Y

what is the effect?



Instrumental Variables

Variables

- Y : Subjective well being $\{0, 1, 2, \dots, 10\} \rightarrow$
PoorHealthDummy $\{0, 1, 2, 3, 4, 5\} = 1, \quad \{6, 7, 8, 9, 10\} = 0$
- X: Whether parent has migrant child ChildDummy: $\{0, 1\}$.
- Z: Ratio of migrants in the village

Second Stage

$$PoorHealthDummy_i = \beta ChildDummy_i + \gamma X_i + \varepsilon_i \quad (1)$$

First Stage

$$ChildDummy_i = \pi Z_i + \theta X_i + \varepsilon_i \quad (2)$$

We decided to use for instrument the ratio of adult children that are labor migrants in every SOATO, I will refer to that ratio as labor ratio.

Regression table

	Dependent Variable: Dummy variable for poor health		
	OLS	probit	instrumental variable
	(1)	(2)	(3)
childDum	-0.045 (0.039)	-0.264 (0.180)	-0.196** (0.094)
Gender	0.026 (0.027)	0.109 (0.115)	0.023 (0.026)
Age	0.008*** (0.002)	0.029*** (0.008)	0.007*** (0.002)
MarriageDummy	-0.044 (0.030)	-0.171 (0.122)	-0.044 (0.030)
EthnicityDummy	-0.117*** (0.027)	-0.466*** (0.110)	-0.115*** (0.029)
Logincome	-0.015 (0.018)	-0.049 (0.074)	-0.008 (0.020)
educbasic	0.080 (0.077)	0.314 (0.311)	0.075 (0.082)
educmiddle	0.056 (0.076)	0.216 (0.312)	0.044 (0.080)
educhigher	0.034 (0.081)	0.091 (0.334)	0.019 (0.084)
Urban	-0.001 (0.028)	-0.021 (0.115)	-0.010 (0.028)
Constant	-0.166 (0.247)	-2.278** (1.011)	-0.179 (0.270)
Observations	918	918	918
R ²	0.063	0.047	0.047
Adjusted R ²	0.053	-396.334	0.037
Log Likelihood			
Akaike Inf. Crit.		814.668	
Residual Std. Error (df = 907)	0.369		0.373
F Statistic	6.089*** (df = 10, 907)		
Diagnostic test for IV:	df1 df2	statistic	pvalue
Weak instruments:	1 907	183.408	< 2e - 16***
Wu-Hausman:	1 906	3.045	0.0814

Regression Table Notes

Result for three regressions OLS, Probit and Instrumental Variable, where dependent variable is a dummy variable that is equals 1 and 0, when elderly parent report subjective well-being from 6-10(good) and from 1-5(bad)respectively. One, two and three stars are respectively coefficients that are significant at 10, 5 and 1 percent. Omitted variable for education is illiterate category.

Reduced Regression

Table: Reduced regression

	<i>Dependent variable:</i>
	poor_health
migranratio	-0.502 (0.324)
Constant	0.196*** (0.016)
Observations	985
R ²	0.002
Adjusted R ²	0.001
Residual Std. Error	0.384 (df = 983)
F Statistic	2.401 (df = 1; 983)

Summary Statistics

	(1)	(2)	(3)	(4)	(5)	(6)
	No Child in Labor Migration, Mean	Has Child in Labor Migration, Mean	Difference of means	SE	t statistics	p value
Age	68.624	68.167	0.457	0.795	0.575	0.566
Gender	0.592	0.519	0.073	0.051	1.434	0.154
MarriageDummy	0.612	0.694	-0.082	0.047	-1.730	0.086*
EthnicityDummy	0.652	0.731	-0.079	0.046	-1.732	0.086*
poor_health	0.186	0.130	0.056	0.035	1.605	0.111
Logincome	10.159	10.435	-0.276	0.070	-3.945	0.0001***
migranratio	0.026	0.077	-0.051	0.005	-11.261	0***
Urban	0.367	0.213	0.154	0.043	3.603	0.0004***
Number of observations	877	108				

Our Results

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- Measurement errors. Self-reported health outcome plagued by subjectivity bias.

Conclusion

- Our results show that direction of the impact is at least ambiguous. Further research that finds more robust instrument are needed in order to provide more rigorous answer for the direction of the impact