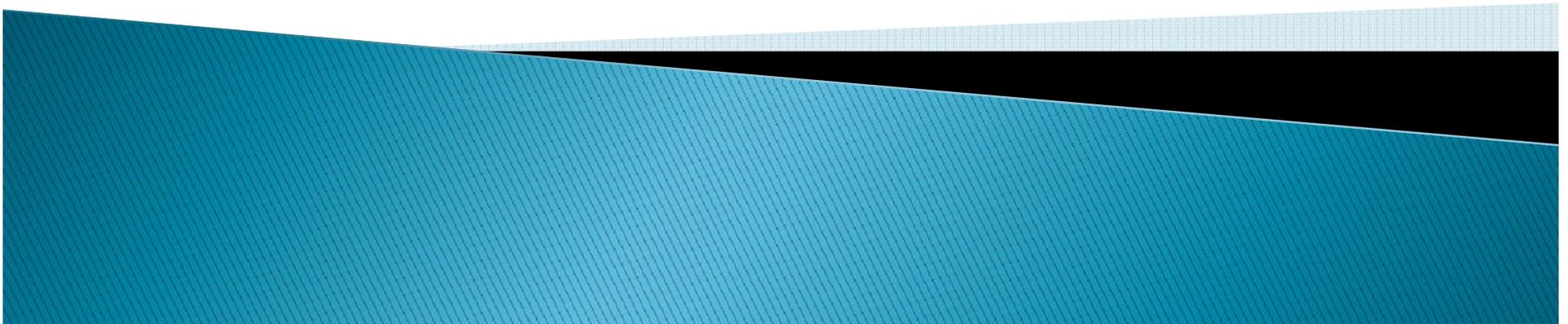


# Migration, Remittances, and Human Capital of Children: A Case Study of Tajikistan

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# Map of Central Asian Region:

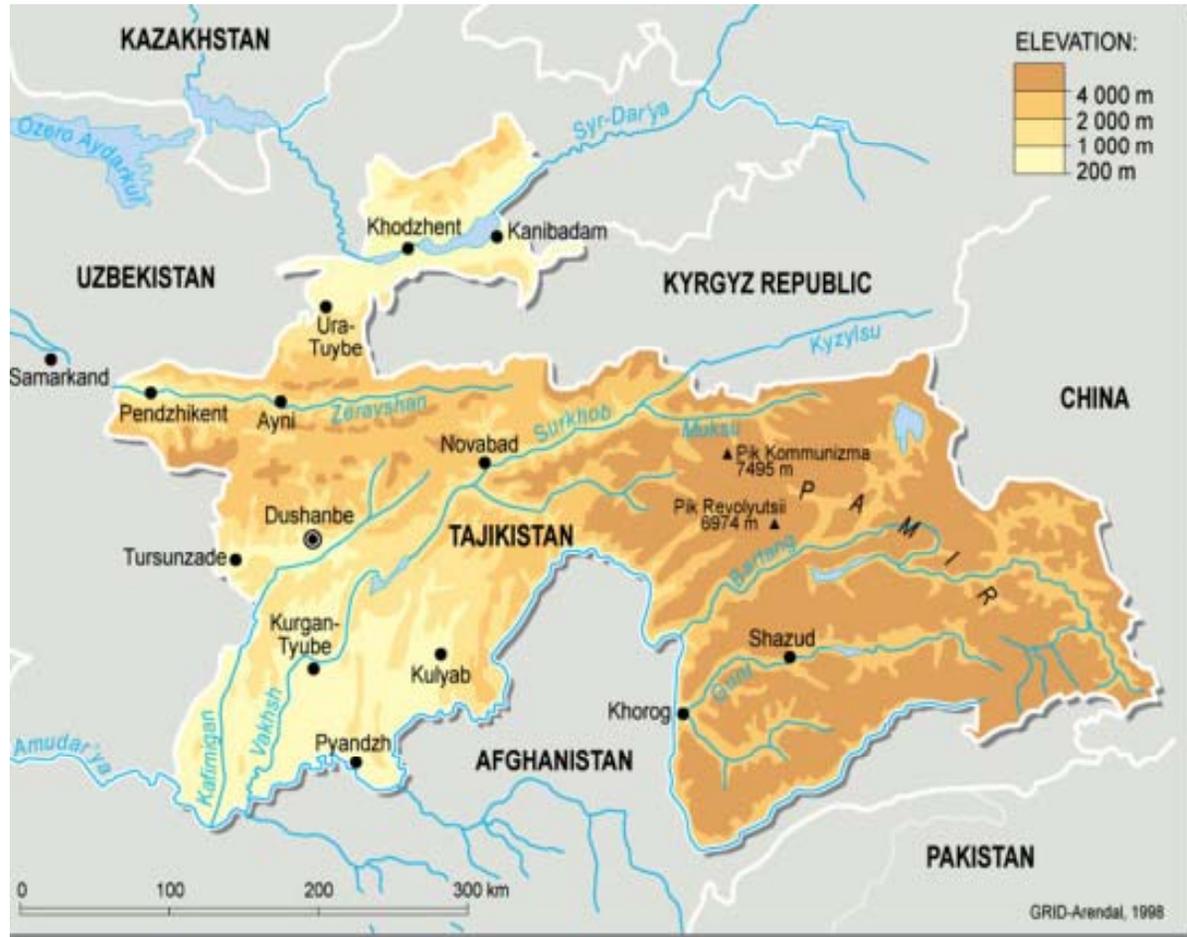
Mapsof.net

The Caucasus and Central Asia



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# The Times Atlas of the World



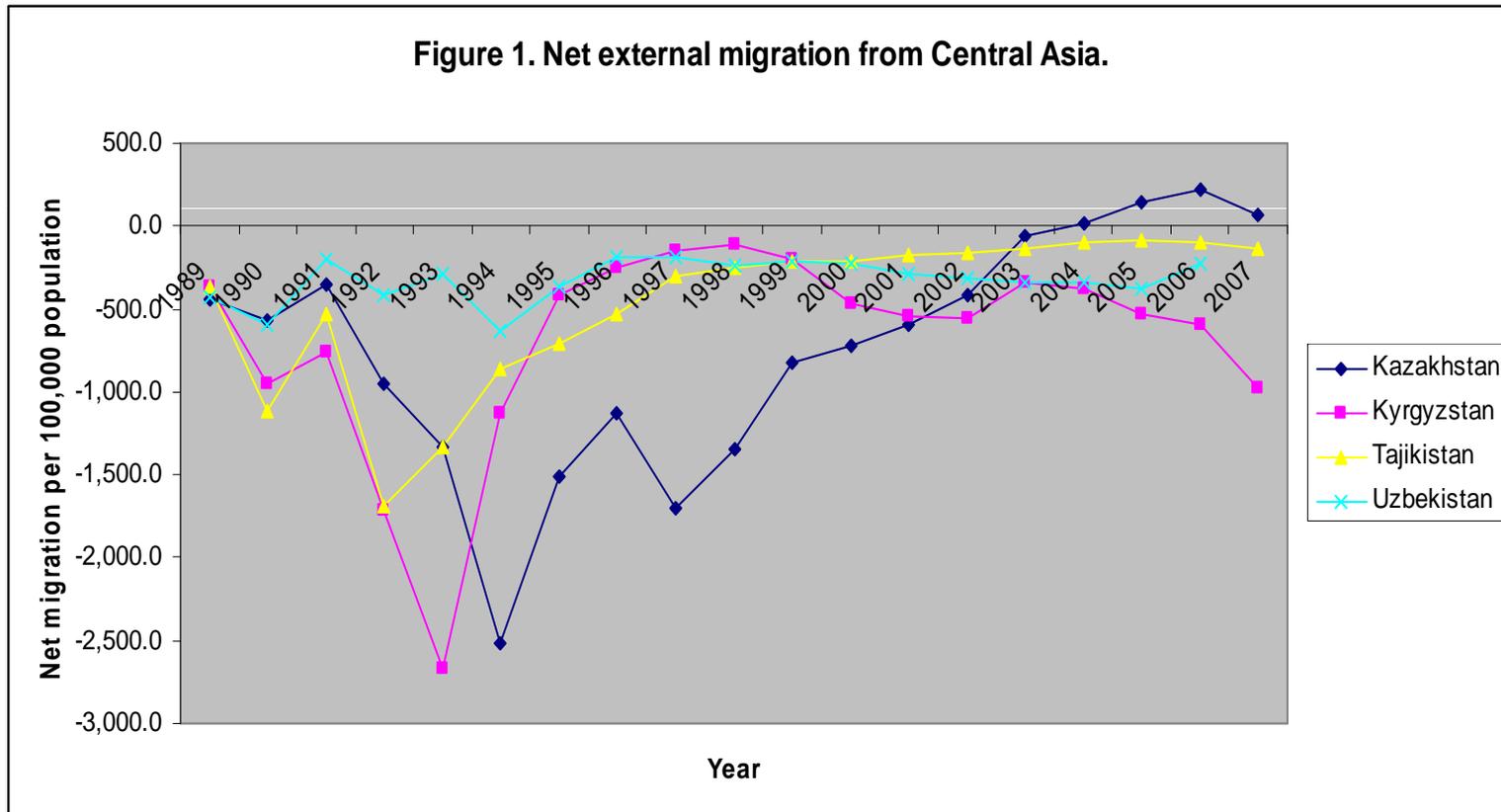


# Historical background:mobility

- ▶ Conquered, reconquered over centuries
- ▶ 19<sup>th</sup> c – early 20<sup>th</sup> c: Great Game, UK vs RU
- ▶ USSR: borders defined by titular majorities,
- ▶ Post USSR: migration periods
  - 1991–1995: C. Asians leave RU, Russians leave C. Asians, Germans/Koreans leave: political, ethnic
  - 1996–99: economic reasons to move to RU and KZ
  - 2000–2005: rules in RU, restrict refugees, illegals
  - 2006–2008: rules ignored, demographic imbalance, need workers.
  - 2008–present: recesssion, return to Russia



# Emigration from Central Asia



# Monthly Wage Gap: 2008 (2007 TJ) US Dollars (ILO data)

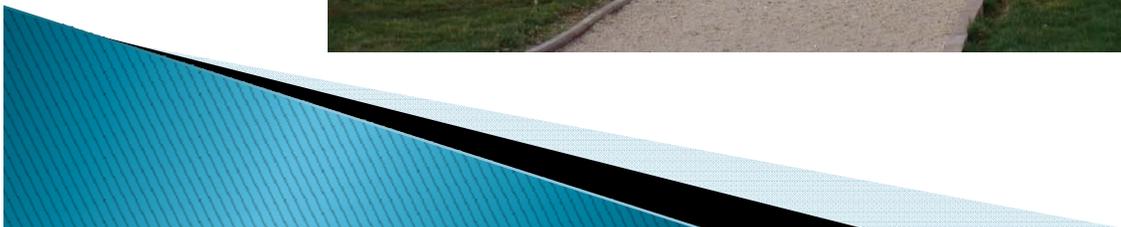
Men	Russia (29.4 ruble=\$1)	Kazakistan (120.3 tenge=\$1)	Tajikistan (3.4somoni =\$1)
Total	588	505	48
Construction	633 [1.1]	678 [1.34]	137 [2.87]
Transport	707 [1.2]	690 [1.37]	115 [2.41]
Hospitality	391 [.67]	535 [1.06]	
Health	442 [.75]	298 [.59]	22 [.47]
Education	384 [.65]	287 [.57]	

# Corruption & Instability

- ▶ International Crisis Group Report, TJ, February 2009: weak state, failure of leadership
  - “Migrant-funded welfare system”
  - Remittances comprise 35% of GDP (2010, WB)
  - Labor market: no opportunity
- ▶ Transparency International, TJ, 2008:
  - Ranks 157 out of 180 countries (least to most corrupt countries)



# Dushanbe: Palace, March 2009

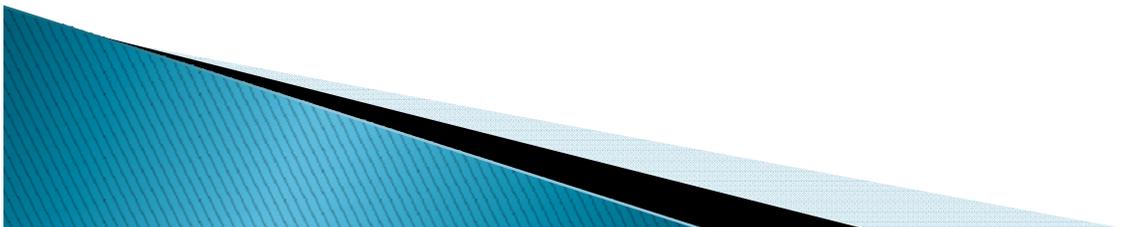


# Dushanbe: below palace, 3/09



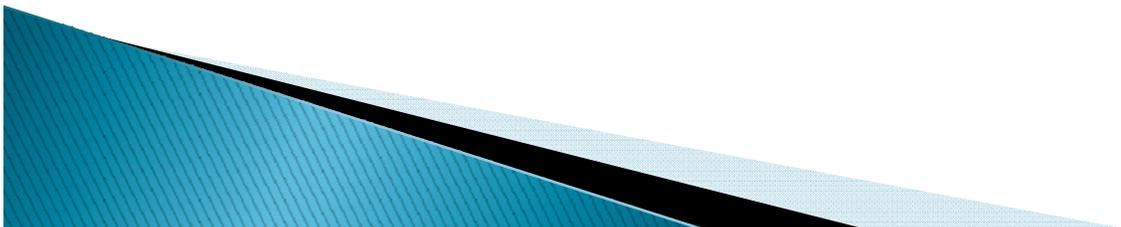
# Purpose of this paper

- ▶ Evaluate which households send migrants and receive remittance income: 2007
- ▶ Outline ways migration could affect life in Tajikistan
- ▶ Focus on the effects on those left behind: children and women



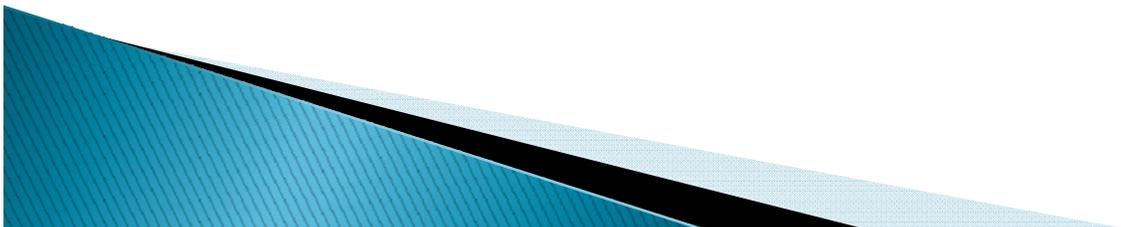
# Theory of migration

1. Population movement
  - Refugee/repatriation: TJ civil war; 1991–1997
  - Push–pull: Todaro (Russia – TJ wages)
2. Individual/family migration: benefits and costs
  - Sjaastad, Becker: investment, LR
  - Mincer, 1978: family problems
3. Insurance: Paulson, 2000, Thailand
  - send someone to a less volatile market



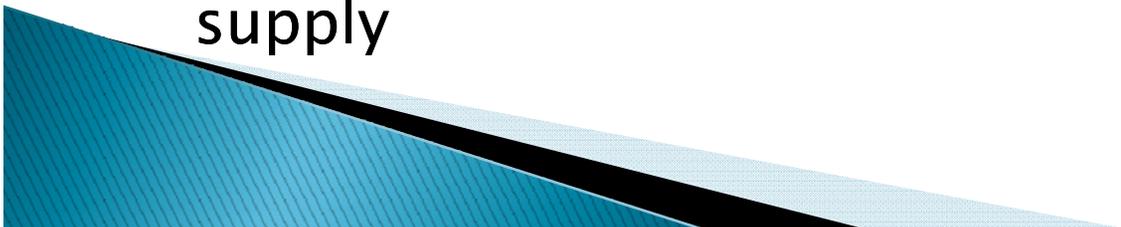
# Theory: who moves

- ▶ Chiswick (many papers): risk takers
- ▶ Borjas (many papers): US–Mexico, lowest skill today, highest skill in the 1950s
- ▶ Stark (2005): brain drain/gain



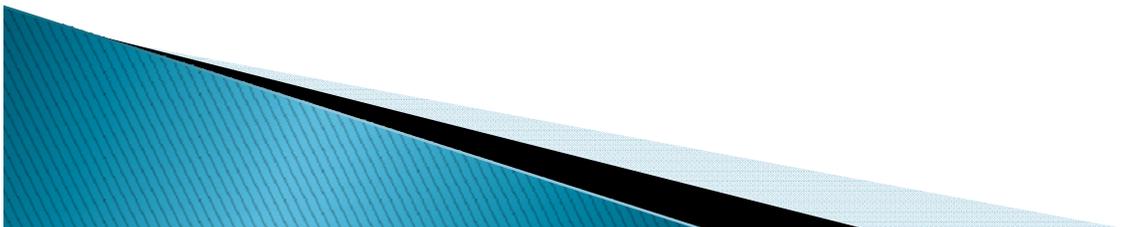
# Recent Evidence from Tajikistan

- ▶ ADB remittance data, 2007: TJ
  - Brown, Olimova, Boboev in TJ (ADB, 2008)
- ▶ ACTED:Summer 2009
  - return migrants (KG, TJ) & migrants in RU
- ▶ IOM, 2007: Khatlon oblast, TJ, 2005
- ▶ IOM, 2004: 3 districts
- ▶ Haqnazar, 2004: Badakshan, MSDSP
- ▶ Shemyakina and Justino, 2010: conflict and Labor supply



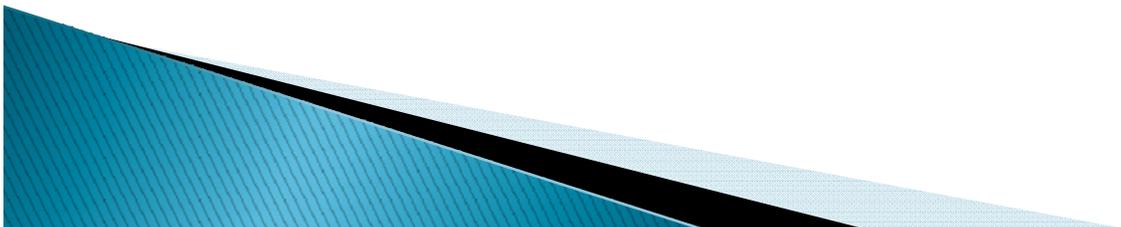
# Literature Results from TJ

- ▶ Remittances increased the following:
  - Total household investment
  - Savings
  - Expenditures on education
  - Access to medical services
  - School quality (2003 study)



# Literature Results

- ▶ Remittances decreased the following:
  - Poverty
  - Income inequality (opposite for KG)
  - Business ownership
  - Absenteeism from school
  - Wage employment (number employed in the household; no effect on individual employment)



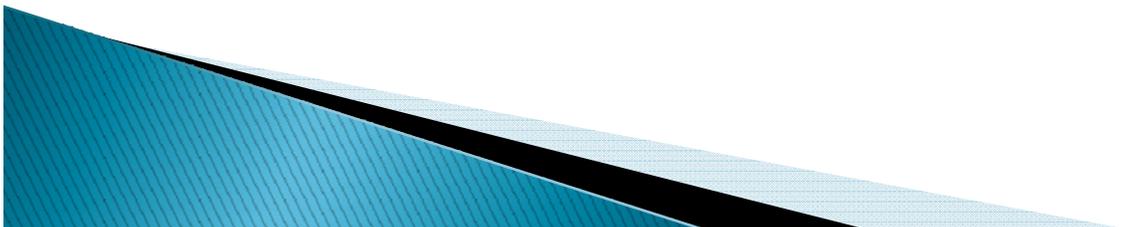
# Literature: other countries, mixed

## ▶ Education

- Rural China, lower high school enrollment for boys
- Rural Pakistan, more education for girls
- Philippines, remittances increase education and reduce work
- Vietnam: no effect on education, more work for boys

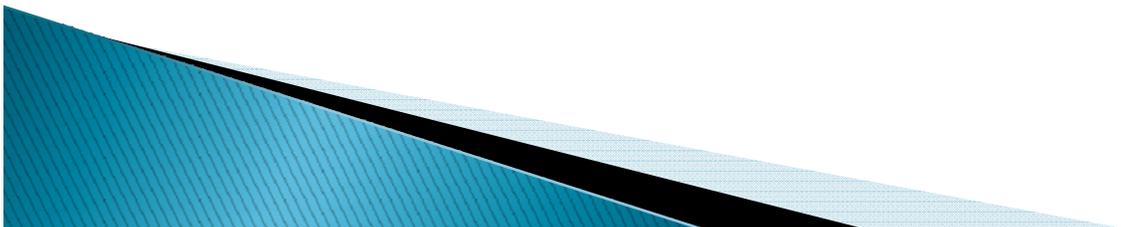
## ▶ Health

- Pakistan: increased height and weight for girls
- Tonga: improved nutrition
- Nairobi slums: increased mortality, worse health



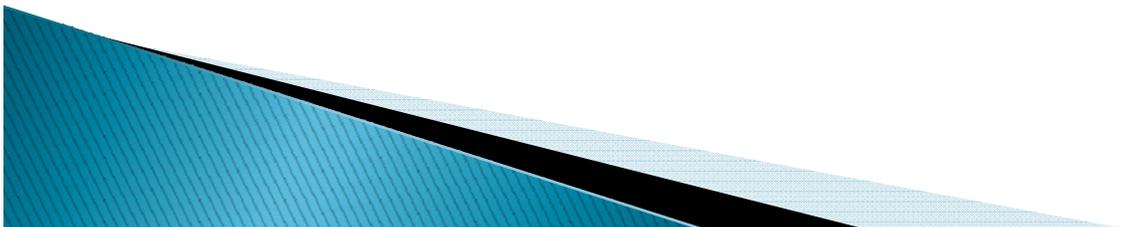
# Our Research

- ▶ Qualitative
  - Survey of return migrants in GBAO, June 2009
- ▶ Analytical with survey data for TJ
  - 2007 and 2009 TLSS (World Bank, National Statistics Committee)
  - Family effects: health, education, work of children left behind



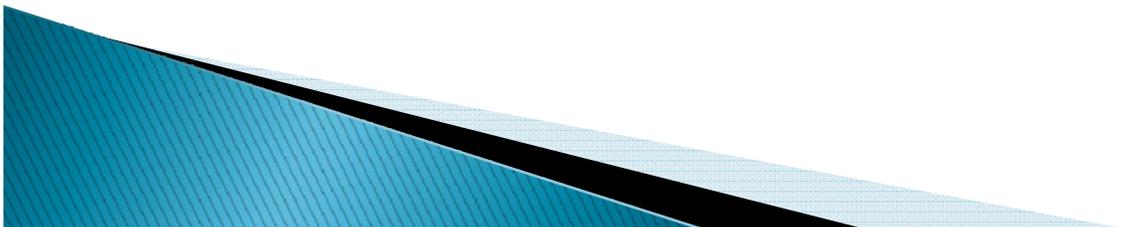
# GBAO Interviews

- ▶ Jobs:
  - Men: construction, warehouse
  - Women: cafes, nannies/domestics, laborer
  - Both: professional
- ▶ Monthly wages: \$1 000/month typical
- ▶ Hours of work: 6 days/week , 12 hours/day
- ▶ TB! 12 cases from one village with 100 households; crowded flats, dormitories



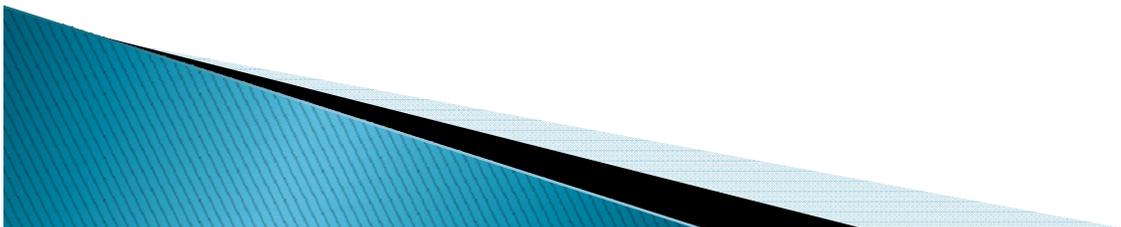
# GBAO Interviews

- ▶ To stay in Tajikistan:
  - Need \$500/month or 50% of the normal wage
- ▶ Discrimination worse in Moscow
- ▶ Long periods of absence from family:
  - They don't see too many problems as long as there is a strong male figure in the household.
  - Some communities: all elderly adults and children



# Child Level model: TLSS 2007

- ▶ Education, child-specific expenditures on education, health status and health care depend on:
  - Migration (instruments needed); remittances
  - Supply of schools/health care in community
  - Parent education, age
  - Wealth of household and community
  - Child demographic characteristics



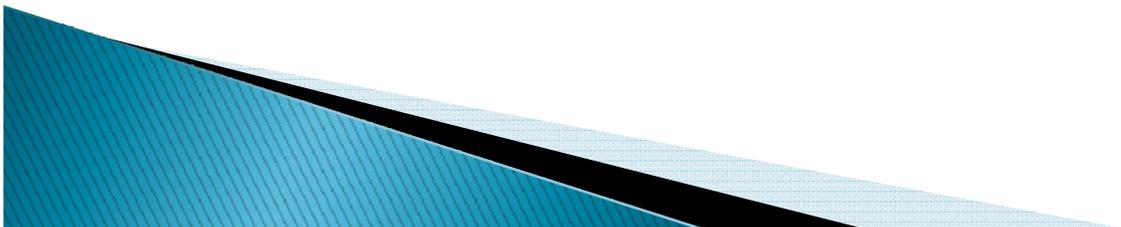
# Explanatory Variables

- ▶ Child: age, ethnicity (Tajik or Uzbek)
- ▶ Parents: completed secondary or higher education of mother & father; age of mother; missing data on father
- ▶ Household: family composition; electricity in winter; social benefits eligible
- ▶ Community: distance to school or health care; water from river; sewage system



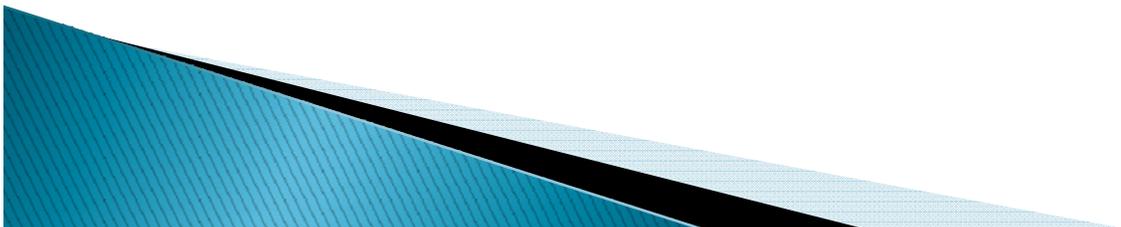
# Migration variables

- ▶ Household has at least one migrant in last year: internal (TJ), external (Russia/ KZ), or living abroad (temporary or permanent)
- ▶ Household received remittances last year
  - Similar results, but not reported here
- ▶ Two measures highly correlated.



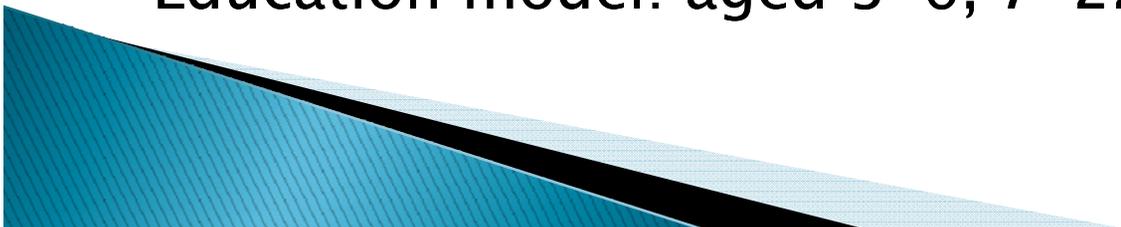
# Method

- ▶ Dummy variable (0–1) outcomes:
  - Linear probability models with IV
- ▶ Continuous variable outcomes:
  - Regression and IV regression
- ▶ Instruments: migration rate in community (excl. hh), community risk, someone in household needs health care (R-square < .06)



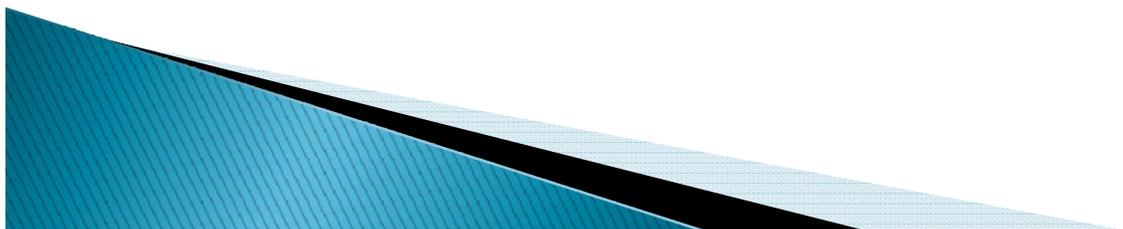
# Sample

- ▶ Tajik and Uzbek ethnicities only
- ▶ Mother in the household (lose 59 households) so there are no missing data on the mother
- ▶ Mother at least 15 years older than children.
- ▶ Children:
  - Health model: aged 0–22
  - Education model: aged 3–6, 7–22



# Descriptive statistics: n=4644

Region	Migrant HH	Remittance HH	External Migrant	Migrant with Higher Educ.
Total	.251	.273	.240	.036
Dushanbe	.158	.174	.148	.033
RRP	.300	.326	.294	.043
Khatlon	.264	.290	.248	.030
Sogd	.258	.275	.242	.034
Badakhshan	.272	.286	.265	.041
Location:				
Rural	.290	.205	.170	.036
Urban	.181	.312	.178	.035

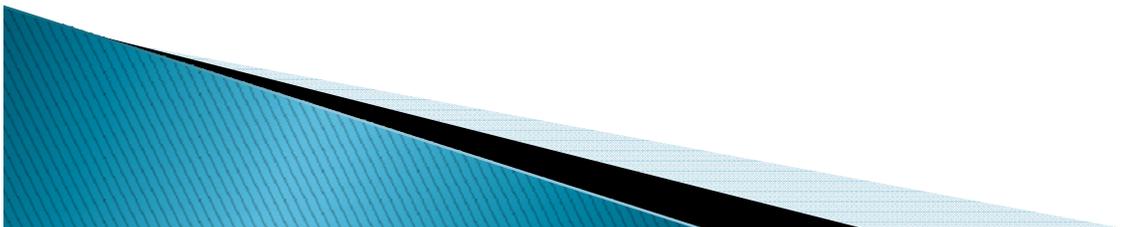


# Model Results, Children <age 7: Migrant vs Non-migrant HH

	All	Boys	Girls
In preschool	--	--	--
Illness/Injury	-0.023	-0.027	--
Good health	0.024	0.036	--
Health improved	--	--	-.058

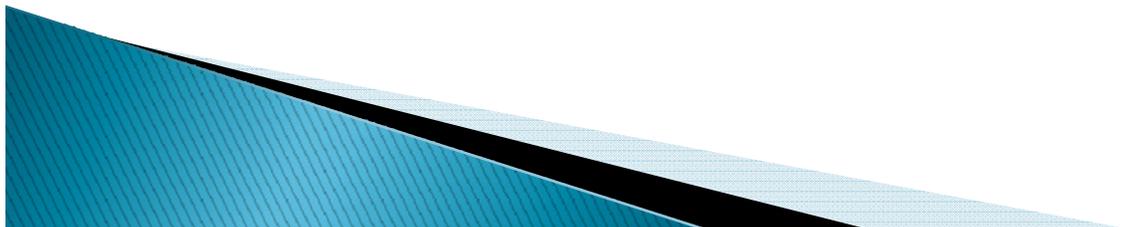
# Results, Young Children: Migrant vs Non-migrant HH

	All	Boys	Girls
Vitamin A shots: number given	-1.4 (IV)	-1.8 (IV)	-1.2(IV)
At least one polio vaccine	0 to 0.329(IV)	0 to 0.348 (IV)	0 to 0.333 (IV)
At least one measles vaccine	--	--	--



# Education Results, Children 7–22: Migrant vs Non-migrant Households

	All	Boys	Girls
Weeks missed of school : 7–22	0.156	0.175	0.142
Has job/family business: 15–22	0.027/–0.026	–/–	0.040/–0.039
In school: 15–17	–0.040	–0.044	--
Complete sec.: 18–22	0.208	0.044 to 0.366 (IV)	--
In higher ed: 18–22	0.077	0.159(IV)	--

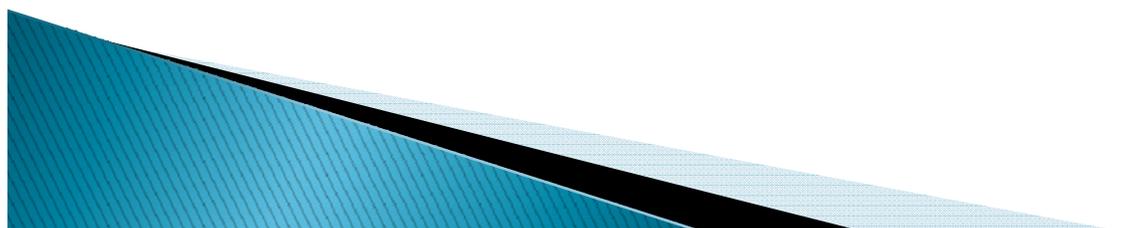


## Expenditure Results (0–1), Children 6–18, enrolled: Migrant vs Non-migrant Households

Probability of expenditure on:	All	Boys	Girls
Books	0 to 0.117(IV)	0 to 0.147(IV)	--
Cash/kind gifts	-0.157	-0.147	-0.167
Fees	-0.328	-0.359	-0.304
Food	0.019	--	--
Uniforms	--	--	--
School building	0.055 to 0.313(IV)	0.052 to 0.308	0.058 to 0.281(IV)
Other	--	--	0 to -0.136(IV)
Total	0.050(IV)	0.049	0.052(IV)

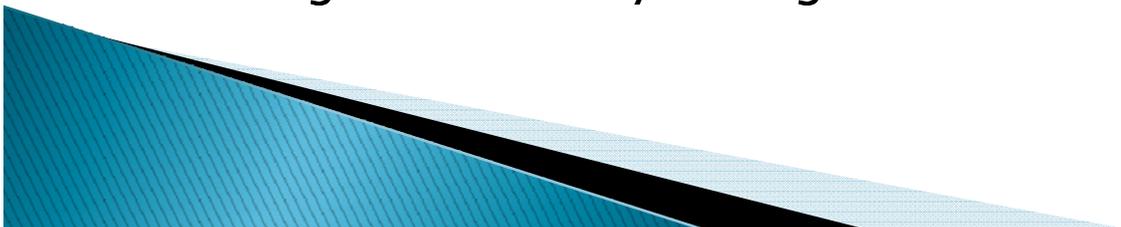
## Health Results, Children 7–22: Migrant vs Non-migrant Households

	All	Boys	Girls
Chronic condition	0 to -0.071 (IV)	0 to -0.071 (IV)	0 to -0.084 (IV)
Illness/injury	--	0 to -0.083	--
In poor health	0 to -0.020	0 to -0.003 (IV)	0 to -0.025
Health improved last year	-0.045 to -0.028 (IV)	-0.040 to -0.305 (IV)	-0.055 to -0.259 (IV)



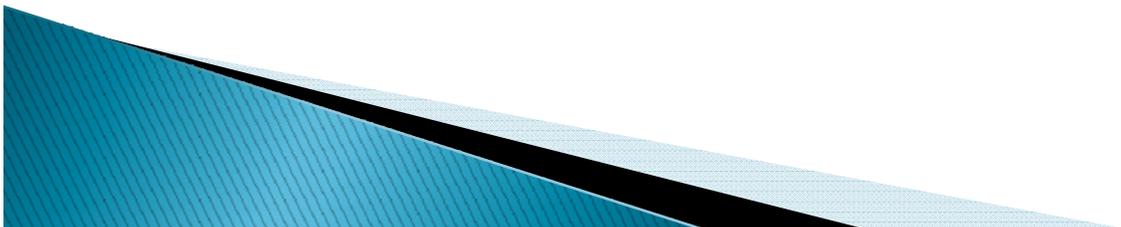
# Conclusions

- ▶ Migration has affected education and health of children
- ▶ Gender differences in the effect of migration on the education of older children:
  - male advantage in enrollment in higher education and completion of secondary education
  - Increase in absences esp. for men; men less likely to enroll in high school , 15–17
  - More expenditures on food, books, school building; less expenditure on fees and gifts. Total expenditures increase with migration for boys and girls.



# Conclusions

- ▶ Health: small children
  - More likely to receive polio vaccines
  - In better health, less injury or illness if male, but health did not improve over the year
  - But, less vitamin A for boys and girls.
  
- ▶ Health: older children
  - Less likely to be in poor health, to have a chronic health condition, to be ill or injured (boys)
  - But, less likely to have improvement in health.



# Conclusions

- ▶ Migration:
  - more positive than negative impact on human capital of TJ children; results are similar for remittance receiving; IV sensitive
- ▶ Propensity score matching: not robust
- ▶ Future research:
  - compare to 2009 and 2007;
  - compare to other countries in the region (UZ, KG)
- ▶ Preliminary UZ results: no impact of remittances on education and health of young or older children.



# What does matter to education and health?

- ▶ Parental education: stronger effects of father's education than mother's education on completion of education
- ▶ Mother's education more important on school expenditures decisions.
- ▶ Large differences across regions:
  - GBAO healthier and better educated

