EDUCATION – JOB MISMATCH AND EMPLOYMENT OUTCOMES OF YOUTH IN KYRGYZSTAN*

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Outline

▸ Education and employment in Kyrgyzstan

▸ Subjective and objective Education-Job mismatch

▸ Data and descriptive statistics

▸ Empirical analysis of Education-Job mismatch and conclusion

Education and employment in Kyrgyzstan

- Rapid growth of the tertiary education, while decreasing rate of the pre-school education institutions
  - In 1990 - 9 higher education institutions
  - In 2015 - more than 50
- However, human capital with necessary skills in the labour market is one of the constraints of the private sector development
  - In 2014 year, 51 % of unemployed were youth in 15-29 ages. (NSCKR).
  - 29.2 % of unemployed in 25-29 age group had tertiary education

Education-Job mismatch and labor market outcomes

▸ Education-job mismatch: Individuals after their education are not employed with their professional qualification

▸ Empirical studies (Elder et al., 2015; Lamo & Messina, 2010; Kogan & Unt, 2005; Atanovska et al., 2015; Kupets, 2016; Petreski et al. 2016):

  ▸ Education-job mismatch affects wage earnings: overeducated individuals receive lower wages compared to matched ("wage penalty")

  ▸ Longer period of findings satisfactory and stable job increases probability of mismatch

  ▸ To our best knowledge there are no previous studies in Kyrgyzstan case

OBJECTIVES

▸ What is the effect of education-job mismatch on:
  ▸ wage earnings;
  ▸ transition from school to work (STWT) of youth in Kyrgyzstan

▸ Education-job mismatch: Individuals after their education are not employed with their professional qualification
  ▸ Vertical education-job mismatch
  ▸ Horizontal education-job mismatch

▸ Vertical mismatch: the level of skills or education is more or less than the level of skills or education required to perform a job. Three outcomes:
  ▸ Overeducated
  ▸ Undereducated
  ▸ Matched

▸

Data

▸ School-to-Work Transition Survey (SWTS) by ILO for Kyrgyzstan

▸ The SWTS includes labor market information on young people aged 15 to 29 years, including information on their transitions within the labor market

▸ Data set includes 3930 young individuals and nationally representative sample

Education-job mismatch variable

▸ Two mismatch variables: objective and subjective

▸ Subjective approach: based on the answer of the respondents, how they assess their education qualification for present job, whether it is relevant or not

▸ Objective approach: comparison of required level of education for certain position with the highest level of education received by respondent (ISCO and ISCED classification of ILO)

▶

Descriptive statistics

	Subjective	Objective
Overeducated	16.1	33.2
Matched	69.1	45.7
Undereducated	14.8	21.1

Table 1. Matching positions (%)

▸ Most of the respondents (69.1 %) perceive themselves as having proper education level for their present job, while there is only 45.7 % of those having required level of education.

▸ The one third of youth in Kyrgyzstan are overeducated for their current jobs, where the share of those who perceiving themselves as overeducated twice less; hence the 21.1 % youth in Kyrgyzstan are undereducated, and only 14.8 % of them perceive themselves as undereducated.

Descriptive statistics

	Agriculture	Mining	Manufacturing	Construction	Wholesale and retail	Transport	Hotels and restaurants	Comunication	Financial interm.	Public admin.	Education	Health
Objective												
Overeducated	39.6	19.5	26.4	17.1	35.4	21.4	52.3	22.1	52.5	33	9.2	6
Matched	47.4	42.8	47.4	58.6	55.1	70.6	35.6	37.6	4.3	13.6	6.3	22.7
Undereducated	13	37.7	26.1	24.2	9.5	8	12.1	40.3	43.2	53.4	84.5	71.3
Subjective												
Overeducated	11.5	14.3	20	16	28.1	31.9	31.3	18.5	15.9	7.4	1.4	7.4
Matched	70.3	64.1	63	68	58.5	60.8	53.4	76.8	83.1	90.7	94.8	89.4
Undereducated	18.2	21.6	17	16	13.4	7.3	15.3	4.7	1	1.9	3.8	3.2
Number of obs.	739	11	167	222	324	65	80	41	34	67	92	38

Table 2. Matching positions with respect to sectors (%)

METHODOLOGY (1)

‣ What is the impact of mismatch status on wage ?

  ‣ OLS estimation

  ‣ Propensity Score Matching

‣ What is the relationship between the length of transition period from school to labor market and mismatch ?
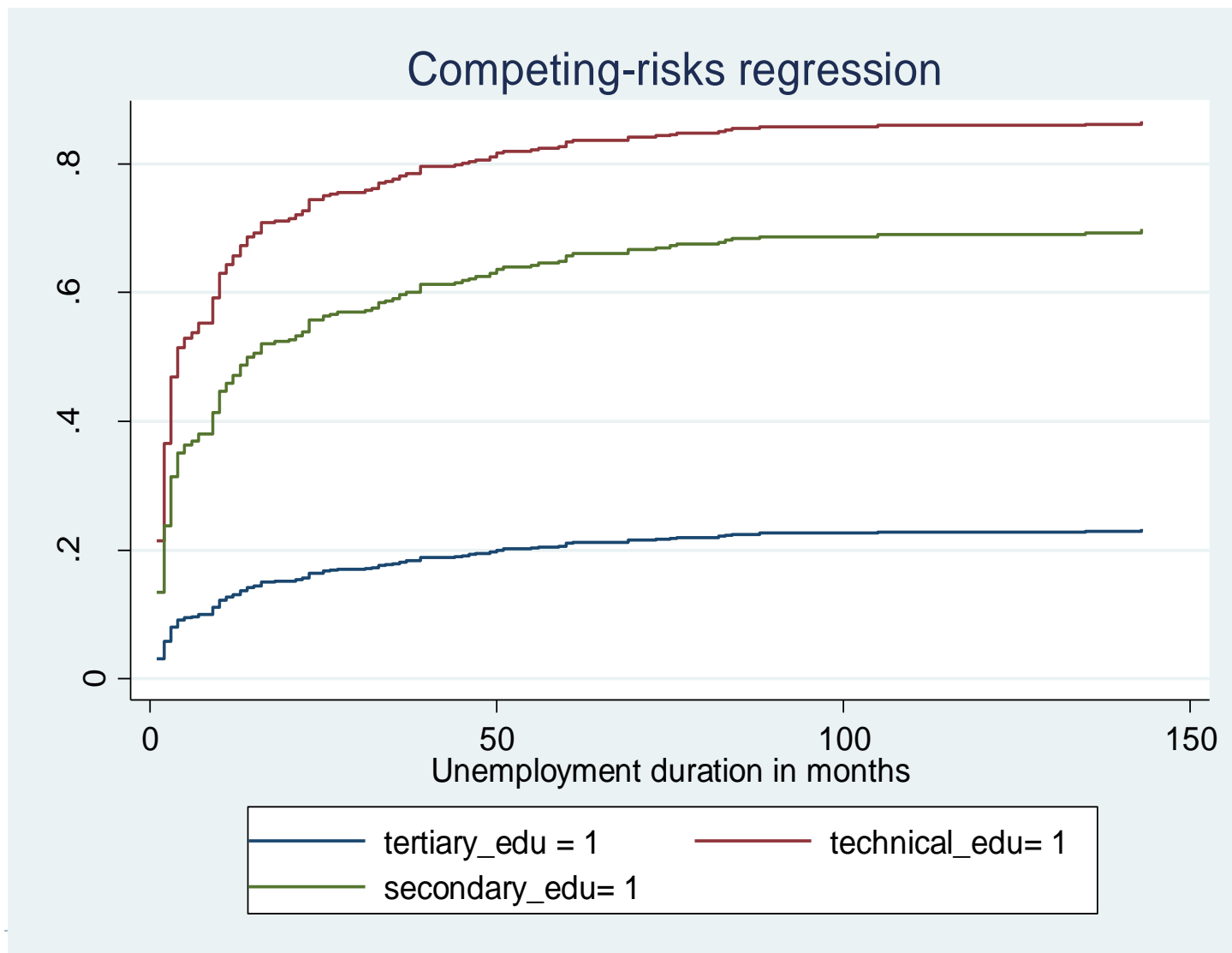
  ‣ Competing Risk Models suggested by Fine & Gray (1999)

METHODOLOGY (2)

- Dependent variables:
    - Length of period (month) required to find stable and satisfactory job after education
    - Wage – log of monthly wage
- Explanatory variables
    - Individual characteristics: age, gender, marriage status, education level
    - Household characteristics: education level of mother, number of children, residence, regional dummies
    - Job characteristics: contract type, firm size
- Due to significant differences between subjective and objective mismatch variables, the estimations are based on the objective mismatch measurements
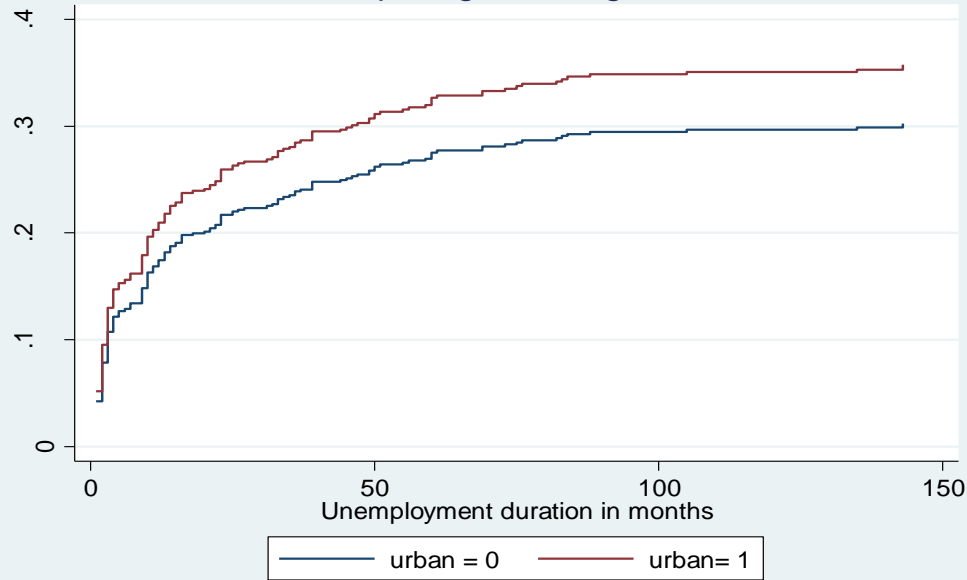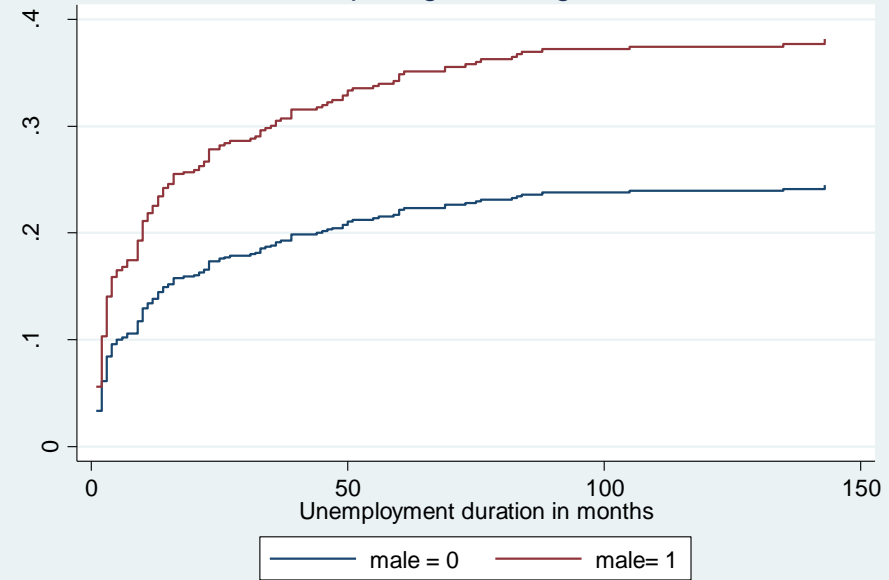
Estimation results: STWT and Mismatch

Competing-risks regression

tertiary_edu = 1   technical_edu= 1
secondary_edu= 1

Unemployment duration in months

Estimation results: STWT and Mismatch

Estimation results: Mismatch and Wage

	Average wage penalty (ATT)		
	Total sample	*Females*	*Males*
Mean difference	-0.1160 * * (0.0488)	-0.0193 (0.0752)	-0.1655*** (0.0625)
OLS	-0.0898* (0.0492)	-0.0178 (0.0811)	-0.1682** (0.0657)
PSM			
- *Radius caliper*	-0.1251*** (0.0426)	-0.0662 (0.0781)	-0.1696*** (0.0511)
- *Kernel*	-0.1140*** (0.0425)	-0.0727 (0.0755)	-0.1696*** (0.0507)
- *Nearest-neighbor*	-0.1262*** (0.0425)	-0.0608 (0.0771)	-0.1692*** (0.0509)

*,**,*** - statistically significant at 10, 5 and 1 significance levels respectively

Note: Other covariates include gender, marital status, education level, children number, mother education level, residence and regional dummies, contract type, firm size. Number of observations: total sample – 885, males – 560 (treated – 161), females – 325 (treated – 101).

▸ **Table 2.** Overeducation and wages in Kyrgyzstan

Conclusion

▸ High prevalence of educational mismatch in Kyrgyzstan. More than 30 % of young workers are formally overeducated for their jobs

▸ The wage penalties associated with overeducation are highly significant. And it is statistically significant for young men, and reaches 16 %.

▸ Our findings reveal that the process of job finding is more difficult and long lasting for individuals with higher education level

▸ Our findings are consistent with the empirical literature for transition economies, showing that as the results of rapid structural change in economy, there is high mismatch between formal education and labour demand