NATIONAL RESEARCH UNIVERSITY

DO FOREIGN LANGUAGE SKILLS PAY OFF IN THE RUSSIAN LABOUR MARKET?

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CHER 32nd annual conference
Kassel, Germany
29.08.2019

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MOTIVATION

- Foreign language is an important part of human capital and one of the determinants of economic growth
  - labour market outcomes in developing and transition economies remain understudied
- The return to foreign language skills is linked to a wider context of education and competences required by the labour market
- In Russia, though the value of foreign language skills is widely accepted, the share of people knowing at least “some” English remains quite low
- This research addresses the heterogeneity of wage returns to foreign language skills in the Russian labour market which are associated with socio-demographic and job characteristics

THEORETICAL BACKGROUND AND EMPIRICAL EVIDENCE (1)

Market and non-market benefits

- Human capital theory: foreign language as a part of human capital may affect productivity of a particular worker (Becker, 1964)
  - Learning a foreign language improves cognitive abilities (Adescope et al., 2010)

- Signalling: language proficiency implies potential worker's worth for the company (Arrow, 1973)

Three branches of empirical research

- Immigrants and the language of their host-country (Chiswick, Miller, 2010; Lochmann et al., 2017).
- Multilingual societies (Vaillancourt, 1996; Grin, Sfreddo, 1998; Grin, 2001)
- Foreign language skills among local workers (Stöhr, 2015; Williams, 2011, Donado et al., 2017)

THEORETICAL BACKGROUND AND EMPIRICAL EVIDENCE (2)

Not all the languages have to be equally important for the labour market results

Controlling for work-related characteristics:

- in Germany - 12% (Stöhr, 2015), in Switzerland – 12-30% (Grin, 2001), in Finland -14-15% (Ginsburgh, Prieto-Rodriguez, 2011), in China – 3-6% (Guo, Sun, 2016)

- In Western Europe - return to foreign language is usually statistically significant for managerial positions (Williams, 2011; Fidermuc, 2011)

Differences in return for educational groups:

- in Israel – 14% for educated (college degree) and 7% for less educated (Lang, Siniver, 2006)
- in India – return increases as the educational level goes up (Azam et al., 2010)

Differences in return for the level of proficiency:

- in Israel – return only for advanced level (Lang, Siniver, 2006), same in Germany (Stöhr, 2015)

DATA

Russian longitudinal Monitoring Survey (RLMS-HSE)

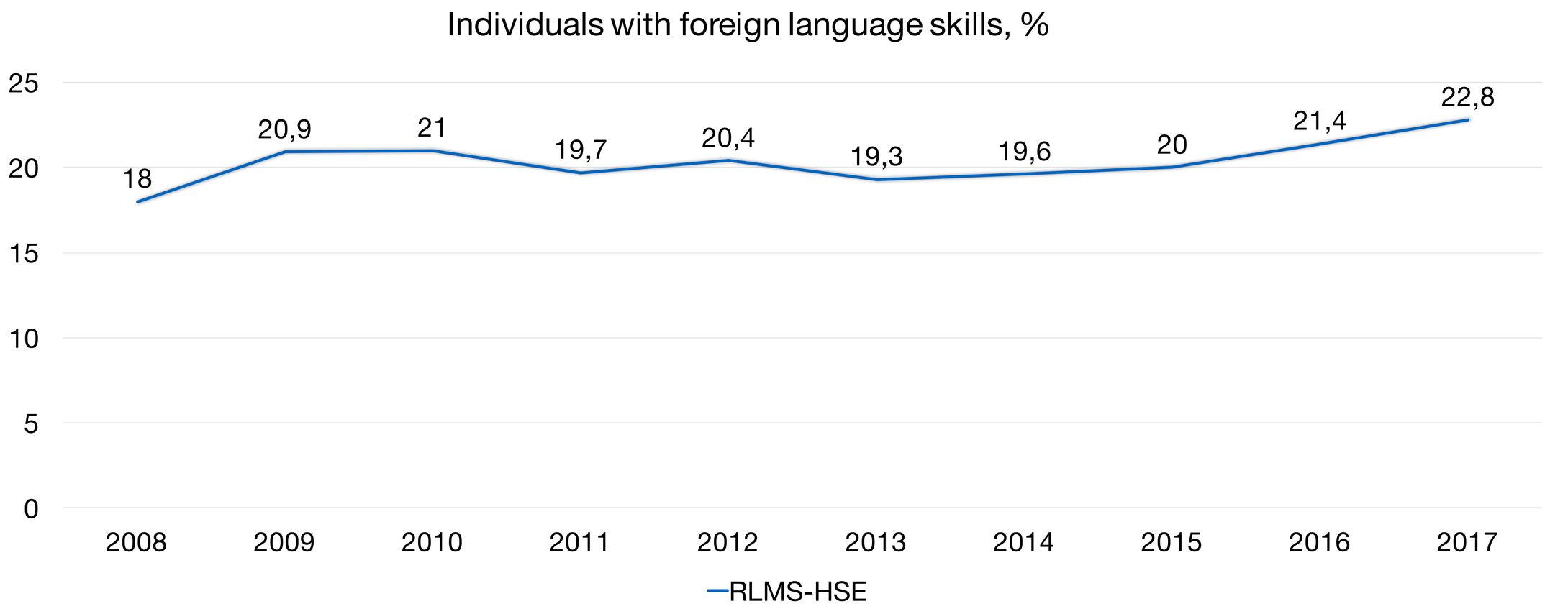
- RLMS-HSE is a series of nationally representative surveys which includes information on salaries as well as educational, socio-demographic, and job characteristics of individuals

- 2008-2017
  - Though RLMS-HSE is intended to provide a panel component, it is highly unbalanced. Hence, we employ pooled data and control for the year of observation in the analysis due to the limitations imposed by the data

- The overall sample consists of more than 74 000 observations

- Males and females aged 18-65

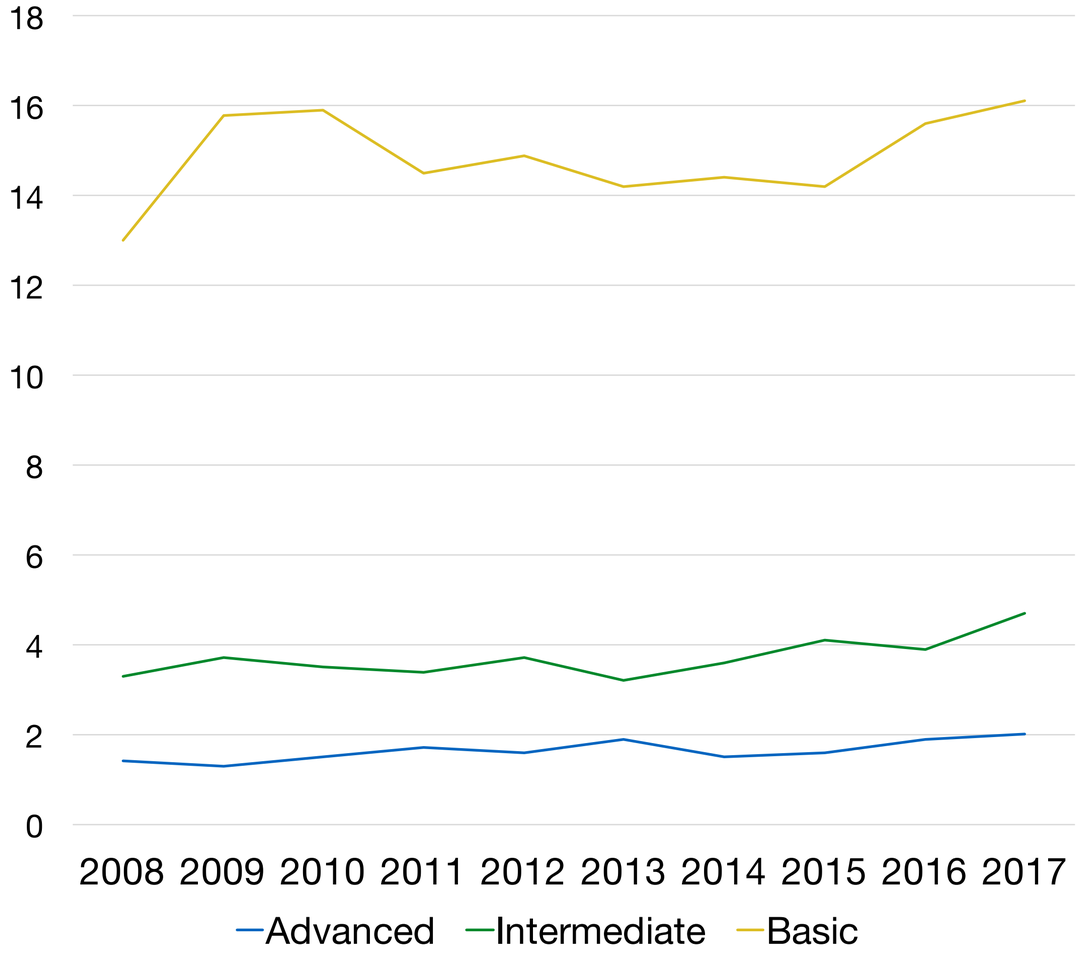
TRENDS (1)



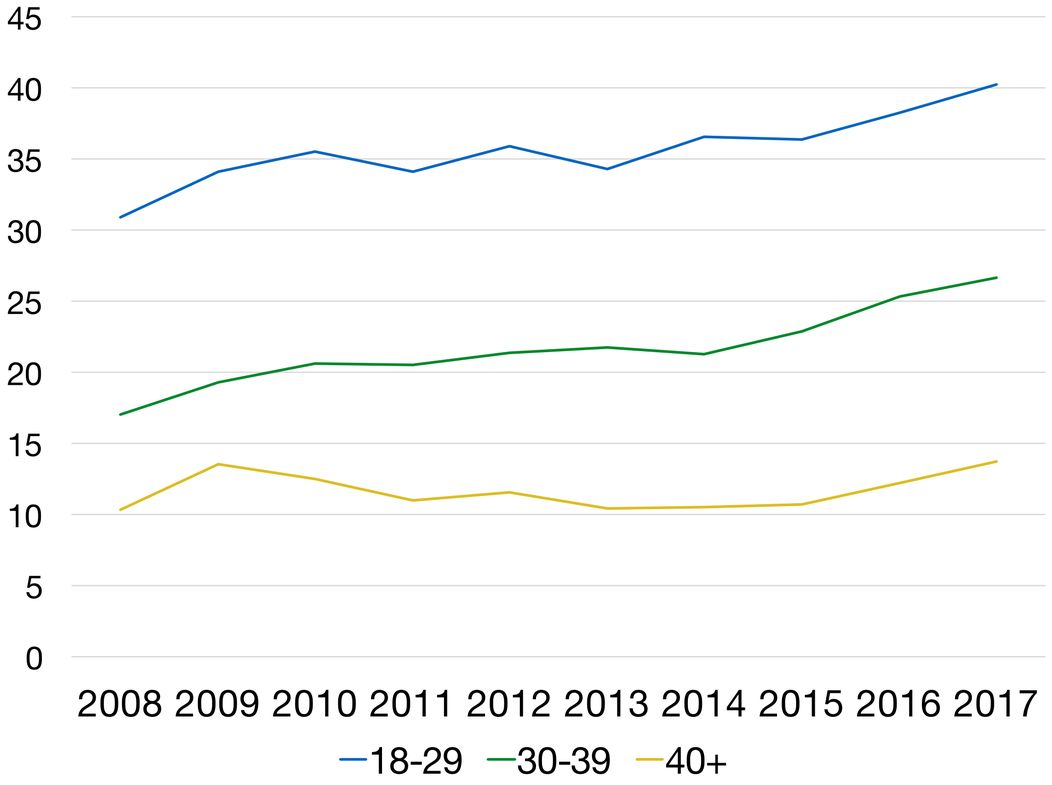
- On average, 20% of population knew at least one foreign language in 2008-17

TRENDS (2)

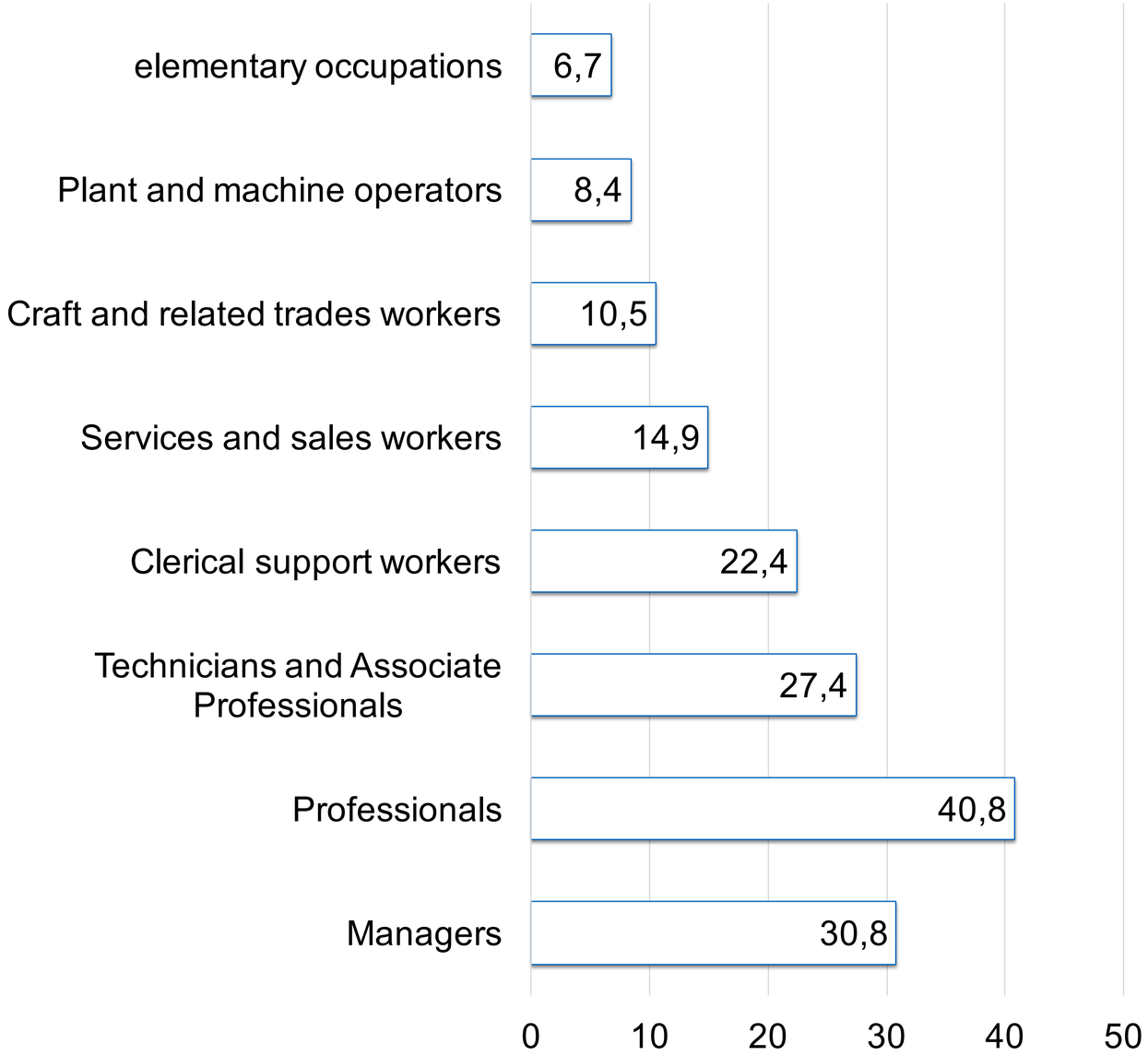
Share of population by the level of language proficiency, %, RLMS-HSE



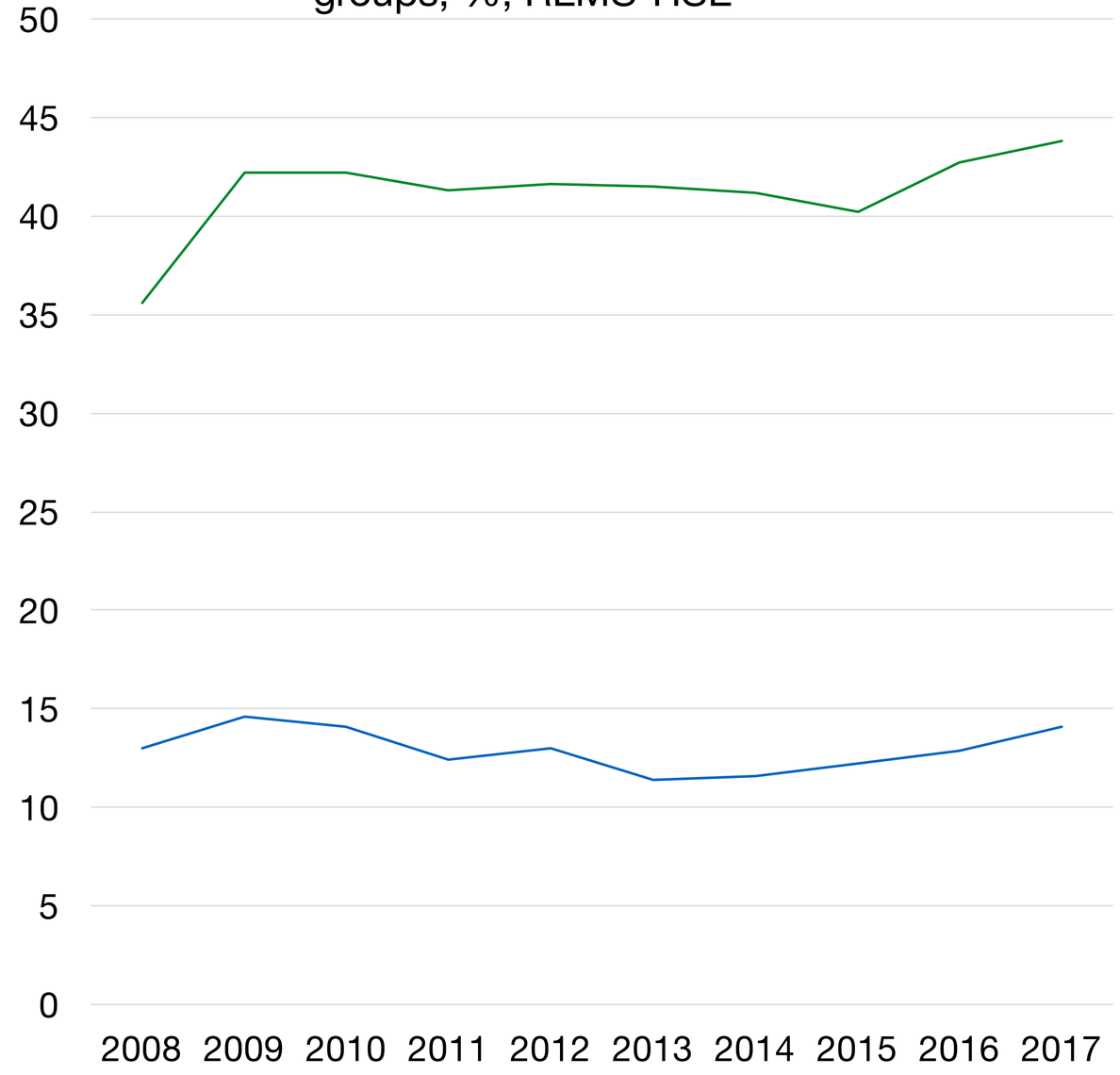
Language proficiency by age groups, % RLMS-HSE



Language proficiency among professional groups (ISCO-08), %, 2008-2017



Language proficiency among educational groups, %, RLMS-HSE



METHODOLOGY

The main instrument is Mincer type equation in the following specification:

$$\ln(W_i) = \beta_0 + \beta_1 X_i + \beta_2 Z_i + \beta_3 F_i + u_i$$

where

- $\ln(W_i)$ is log real hourly wage in primary place of employment for the recent 30 days
- X_i – socio-demographic characteristics (gender, age, age squared, marital status (binary, 1=married), education (1=college degree or higher, 0=else)
- Z_i – job characteristics (industry, professional group (ISCO-08), size of the enterprise and its ownership status)
- F_i – foreign language (binary)
- Also controlling for the type of settlement, region and year of the observation

- The equation is estimated on subsamples (by age, education, professional group)

Heckman's sample selection model is used due to nonrandom selection into employment

- Selection equation variables: gender, age, marital status, education, type of settlement, disability status, number of under-aged kids

LIMITATIONS

- **No differentiation between foreign languages**
- **Possible endogenity**
  - Unobserved abilities
  - Measurement errors
  - Reversed causality
- **Self-selection into specific jobs**

RESULTS (1)

	overall	age groups			proficiency level	education	
		18-29	30-39	40+		higher education	no higher education
Higher education	0.202***	0.160***	0.191***	0.197***	0.202***	-	-
	(0.008)	(0.025)	(0.015)	(0.011)	(0.008)		
Foreign language	0.0838***	0.0225***	0,0962***	0,104***	-	-	-
	(0.00814)	(0.0210)	(0.0129)	(0.0121)			
Advanced	-	-	-	-	0,217***	0.256***	0.0513
					(0.0290)	(0.0321)	(0.0684)
Intermediate	-	-	-	-	0,0769***	0.110***	0.0619
					(0.0194)	(0.0225)	(0.0398)
Basic	-	-	-	-	0,0761***	0.0752***	0.0932***
					(0.00867)	(0.0116)	(0.0130)
N	74 156	9 611	19 113	45 432	74 126	20 644	53 482

*, **, *** Statistically significant at the 0.05, 0.01 and 0.001 levels, respectively

RESULTS (2)

	professional groups (ISCO-08)							
	Managers	**Professionals**	**Technicians and Associate Professionals**	**Clerical support workers**	**Services and Sales Workers**	**Craft and related trades workers**	**Plant and machine operators**	**Elementary occupations**
Higher education	0.320***	0.257***	0.198***	0.209***	0.165***	0.128***	0.0693	0.135
	(0.025)	(0.014)	(0.015)	(0.031)	(0.024)	(0.030)	(0.036)	(0.062)
Foreign language	0,122***	0,103***	0,065***	0,056	0,056*	0,0458	0,057	0,089
	(0,0256)	(0.0142)	(0.0165)	(0.0325)	(0.0325)	(0.0270)	(0.0317)	(0.0557)
N	3 965	9 522	9 332	2 446	7 836	5 192	6 104	2 853

*, **, *** Statistically significant at the 0.05, 0.01 and 0.001 levels, respectively

RESULTS (3)

Sample	Return to foreign language
Overall	overall 9% advanced 24%
Higher education	basic 7% advanced 29%
No higher education	basic 9% advanced - insignificant
Age group	
18-29	overall insignificant
30-39	overall 10%
40+	overall 11%
Professional group	
Managers	overall 15%
Professionals	overall 11%
Technicians and Associate Professionals	overall 6%
Clerical support workers	insignificant
Services and Sales Workers	overall 5%, low significance
Craft and related trades workers	insignificant
Plant and Machine Operators	insignificant
Elementary occupations	insignificant

CONCLUSIONS

- On average, the return to foreign language skills in the Russian labour market is 9%
- The return to fluency significantly exceeds the respective return to other levels
- We observe considerable heterogeneity in return for various socio-demographic and professional groups
- More educated individuals receive higher wage premium compared to less educated ones which confirms the existence of the complementarity between language and education
- Foreign language skills are valued by specific jobs which also require other developed cognitive abilities and social skills
- The complementarity between language skills and other components of human capital suggests that it is necessary to consider language skills in a wider cultural, social, and educational context

THANK YOU!