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**EXPLORING FIRST LABOUR MARKET EXPERIENCE OF  
GRADUATES IN THE FIELD OF BUSINESS AND  
ADMINISTRATION**

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# AGENDA

1. MOTIVATION AND CONTRIBUTION
2. THE SCHOOL-TO-WORK TRANSITION OF GRADUATES IN THE FIELD OF BUSINESS AND ADMINISTRATION
3. DOES STUDY ABROAD INCREASE EMPLOYABILITY?
4. IMPORTANT SKILLS FOR EMPLOYERS – SKILLS GAP?
5. CONCLUDING THOUGHTS

# MOTIVATION

## IMPORTANCE OF EDUCATION

### Economic growth

(Becker, 1964; Ben-Porath, 1967; and early works of Mincer, 1958 and 1962; Schultz, 1961; Nelson & Phelps, 1966; Denison, 1974; Mankiw, Romer, & Weil, 1992; Lucas, 1988, Benhabib & Spiegel, 1994; Barro & Lee, 2001; Acemoglu, Aghion & Zilibotti, 2006; Vandenbussche, Aghion & Meghir, 2006; Aghion, 2007; Hanushek & Kimko, 2000; Hanushek & Woessmann, 2009).

### Individual effects

Higher earnings or wages (Becker, 1964; Mincer, 1974; Keane and Wolpin, 1997; Card, 1999; Black & Smith, 2006 for US, Harmon et al. 2001 for Europe; Boarini & Strauss, 2010 for OECD countries and Bartolj et al. 2011 for Slovenia )

# MOTIVATION cont.

## TRENDS IN EDUCATION

Increase in students, graduates and resources devoted to education  
(Ryan, 2001; OECD, 2010; World Bank, 2011; SORS, 2011)

Persisting unemployment, overeducation and mismatch

(Smith, McKnight, & Naylor, 2000; Ryan, 2001; Lassibille et al., 2001; Kogan & Unt, 2005; Schomburg & Teichler, 2006; Quintini, Martin, & Martin, 2007; Caroleo & Pastore, 2007; Allen & van der Velden, 2007; Robst, 2007; Nordin, Persson, & Rooth, 2010).

Quality of education

(Hanushek & Kimko, 2000; Solmon & Wachtel, 1973; Solmon, 1975; Loury & Garman, 1995; Brewer, Eide, & Ehrenberg, 1999; Hilmer, 2000; Dale & Krueger, 2002; Chevalier & Conlon, 2003; Black & Smith, 2004; Hussain, McNally, & Telhaj, 2009; Long, 2010).

Spending a part of study abroad

# DATA

Micro data from Statistical Office of the Republic of Slovenia 2007-2009

## **Data on education**

- Field of education (ISCED)
- Higher education institution
- Type of education
- Mode and duration of study
- Personal characteristics

## **Data on employment**

- Statistical Register of Labour Active Population

## **More detailed data on skills and competences**

- Survey on alumni at FELU (2009/2010)

## DESCRIPTION OF DATA

		Share in the whole sample	Higher vocational	Professional higher (former)	Professional higher (1 <sup>st</sup> Bologna cycle)	Academic higher (former)	Academic higher (1 <sup>st</sup> Bologna cycle)
All	2007		15,83%	48,87%	0,90%	33,46%	0,95%
	2008		18,07%	40,50%	3,29%	32,90%	5,24%
	2009		10,88%	31,13%	8,95%	28,24%	20,80%
PU_U1	2007	46,93%	b	55,79%	b	44,21%	b
	2008	47,68%	b	43,31%	1,68%	44,64%	10,36%
	2009	49,87%	b	27,46%	10,19%	34,12%	28,22%
PU_U2	2007	24,34%	b	47,77%	b	52,23%	b
	2008	22,59%	b	48,60%	b	51,40%	b
	2009	27,52%	b	34,35%	5,80%	40,76%	19,08%
PU_U3	2007	3,78%	b	52,50%	22,50%	b	25,00%
	2008	2,96%		37,14%	52,86%	b	10,00%
	2009	4,12%		28,57%	35,71%		35,71%

## DESCRIPTION OF DATA

		Share in the whole sample	Higher vocational	Professional higher (former)	Professional higher (1 <sup>st</sup> Bologna cycle)	Academic higher (former)	Academic higher (1 <sup>st</sup> Bologna cycle)
PR_U4	2007	1,47%	b	100,00%	b	b	b
	2008	0,55%		100,00%	b	b	b
	2009	0,63%		100,00%	b	b	b
VOC	2007	15,83%	100,00%	b	b	b	b
	2008	18,07%	100,00%	b	b	b	b
	2009	10,88%	100,00%	b	b	b	b
Indep. HEI	2007	7,66%	b	100,00%	b	b	b
	2008	8,15%	b	88,60%	11,40%	b	b
	2009	6,97%	b	88,55%	11,45%	b	b

Notes: b – no graduates for particular study program.

Source: STAT (2011), own calculations

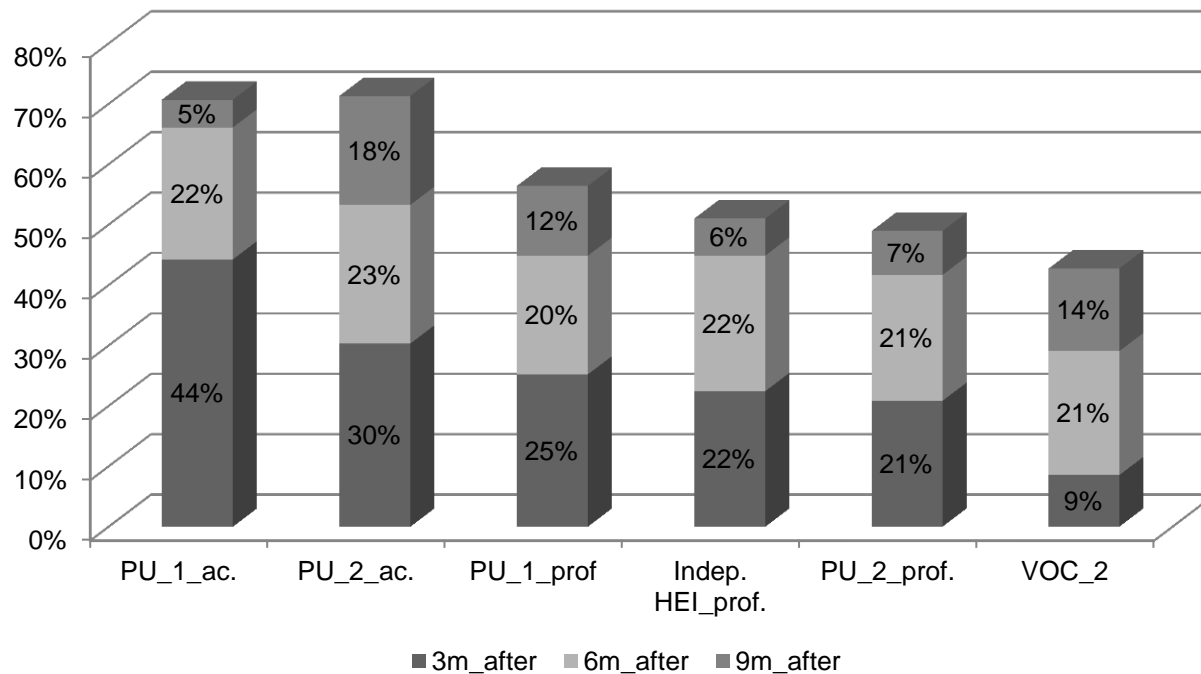
# GRADUATES THAT CONTINUED WITH THE STUDY

		Higher vocational	Professional higher (former)	Professional higher (1 <sup>st</sup> Bologna cycle)	Academic higher (former)	Academic higher (1 <sup>st</sup> Bologna cycle)
All	2007	27,76%	38,88%	42,11%	36,02%	35,00%
	2008	28,97%	39,62%	44,87%	36,46%	91,13%
	2009	41,31%	41,70%	67,61%	28,72%	85,25%



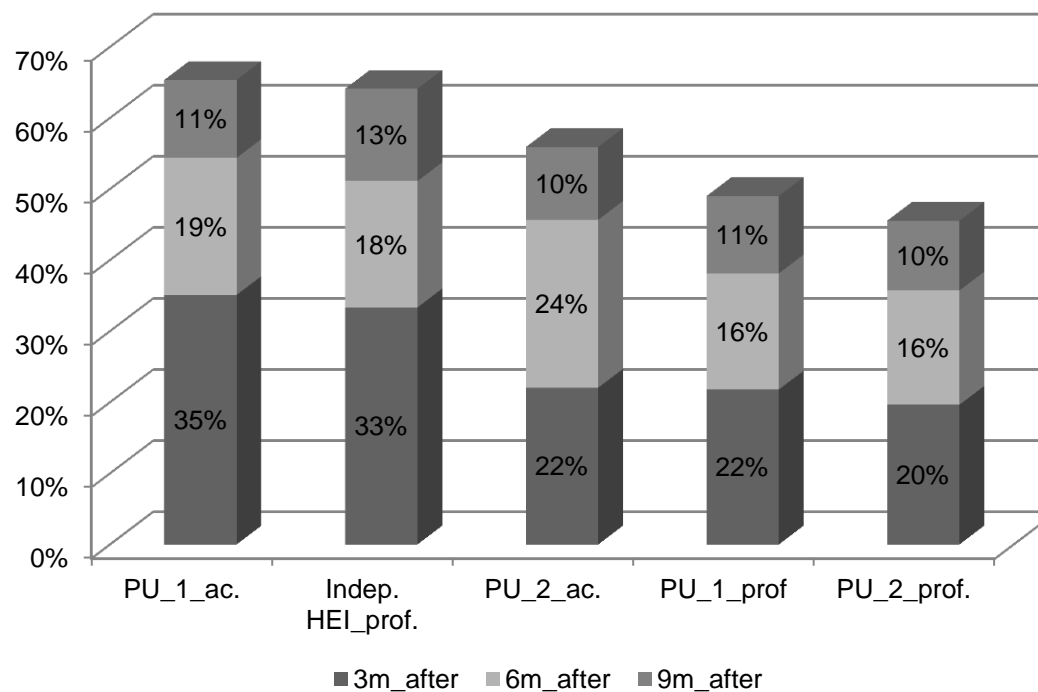
# SCHOOL-TO-WORK TRANSITION

How long did it take to find a first regular job?



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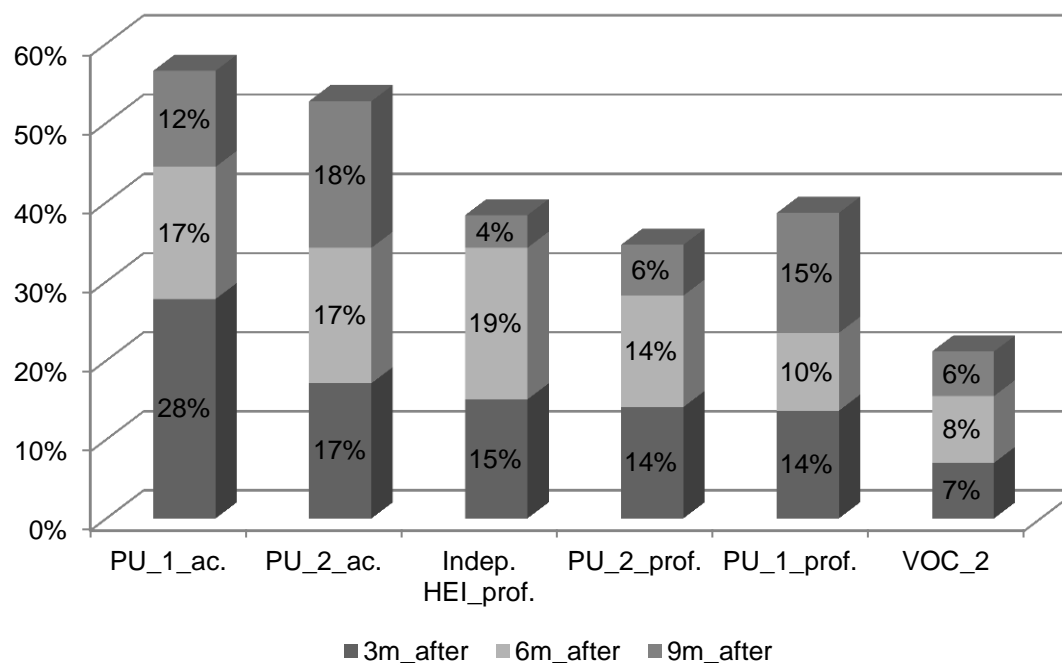
How long did it take to find a first regular job?



Graduates in the field of business and administration, 2008

# SCHOOL-TO-WORK TRANSITION

How long did it take to find a first regular job?



Graduates in the field of business and administration, 2009

# METHODOLOGY (Propensity score matching)

## PROPENSITY SCORE MATCHING

Rosenbaum and Rubin (1983); Fan and Novell (2001)

$$p(X) = \Pr(D = 1|X) = E(D|X)$$

$D = \{0,1\}$ ... treatment variable

$D_i = 1$  ... unit  $i$  is assigned to the treatment

$D_i = 0$  ... unit  $i$  is assigned to a control treatment

$X$  ...a multidimensional vector of pre-treatment characteristics.

Average Effect of Treatment on the Treated (ATT):

$$\begin{aligned} ATT &= E\{Y_{1i} - Y_{0i} | D_i = 1\} = \\ &= E[E\{Y_{1i} - Y_{0i} | D_i = 1, p(X_i)\}] = \\ &= E[E\{Y_{1i} | D_i = 1, p(X_i)\} - E\{Y_{0i} | D_i = 0, p(X_i)\} | D_i = 1] \end{aligned}$$

$Y_{1i}, Y_{0i}$  ... potential outcomes of two counterfactual situations of treatment and no treatment

# RESULTS -FIELD OF EDUCATION EFFECT

## Field of education effect

### Matriculation exam

	2007	2008	2009
P (B&A)	0.5431	0.5972	0.3517
Higher	Health Eng. Arch. & Build.	Health Eng. Arch. & Build. Math. Stat. & Comp.	Health Eng. Arch. & Build. Science Educ. Law
Lower	Hum. Soc. Sci.	Hum. Soc. Sci. Arts Jour. & Info	Hum. Soc. Sci. Agri.

### Prof. Matriculation exam and final exam

	2007	2008	2009
P (B&A)	0.3846	0.3484	0.2730
Higher	Health Eng. Arch. & Build. Math. Stat. & Comp.	Health Eng. Arch. & Build. Math. Stat. & Comp.	Health Eng. Arch. & Build. Sciences
Lower	Hum. Arts Soc. Sci. Agri. Services	Hum. Arts Soc. Sci. Pers. & Sec.	Agri.

# RESULTS – GENDER AND INSTITUTIONAL EFFECT

## Matriculation exam

	2007	2008	2009
P (B&A)	0.5431	0.5972	0.3517
Gender		Negative	Negative
Type	Prof (-)	Prof (-) (Bol (-))	Prof (-) (Bol (-))
HEI	Uni 2 (-)	Uni 2 (-)	Uni 2 (-)

## Prof. Matriculation exam and final exam

	2007	2008	2009
P (B&A)	0.3846	0.3484	0.2730
Gender	Negative		Negative
Type			(Bol (-))
HEI	Uni 2 (-)	Uni 3 (+)	Uni 2 (-)

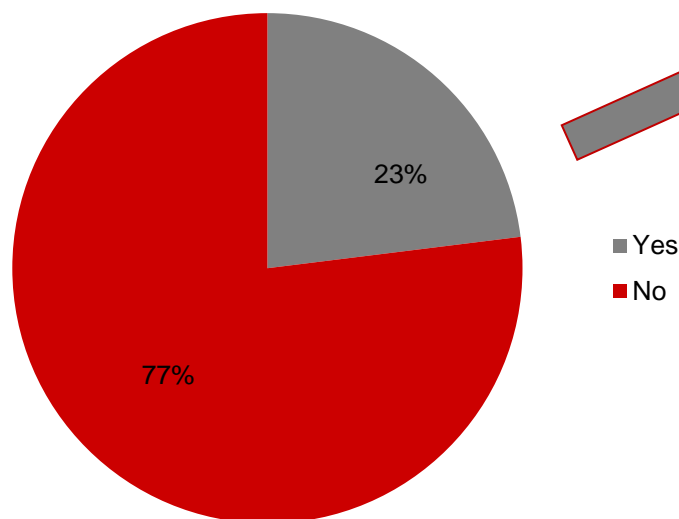
	2007	2008	2009
P (B&A)	0.7112	0.7476	0.6150
Gender		Negative	

	2007	2008	2009
P (B&A)	0.6302	0.6220	0.4523

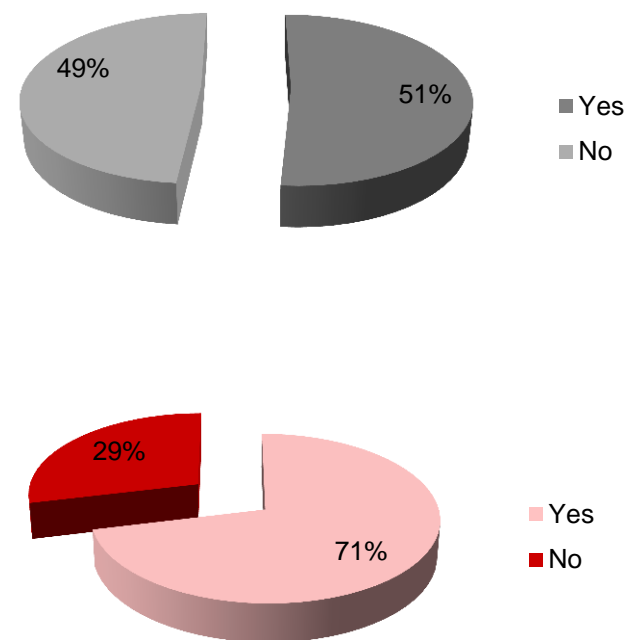
# What role do practical and international experiences play in graduates employability?

Survey of alumni members at FELU (graduates in 2009/10)

Did you study abroad?



Do you have a job at the time of survey?

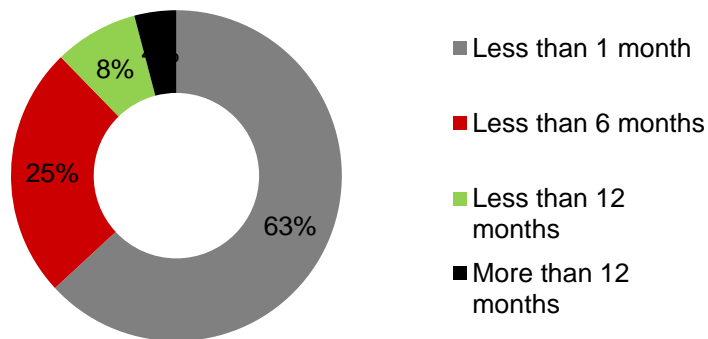


Complete sample

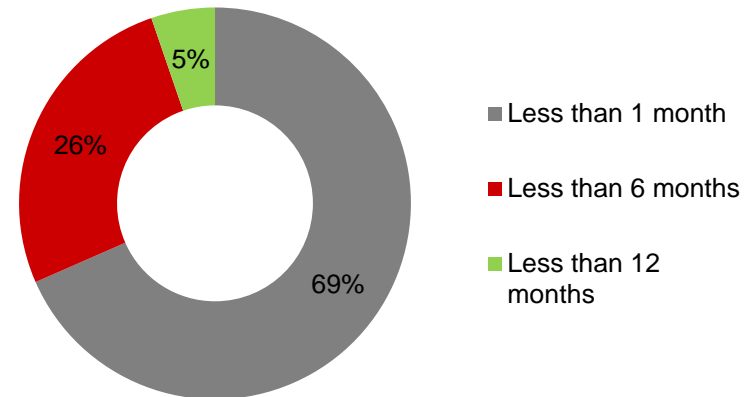
# What role do practical and international experiences play in graduates employability?

Survey of alumni members at FELU (graduates in 2009/10)

## How long did it take to get a first job?



Complete sample



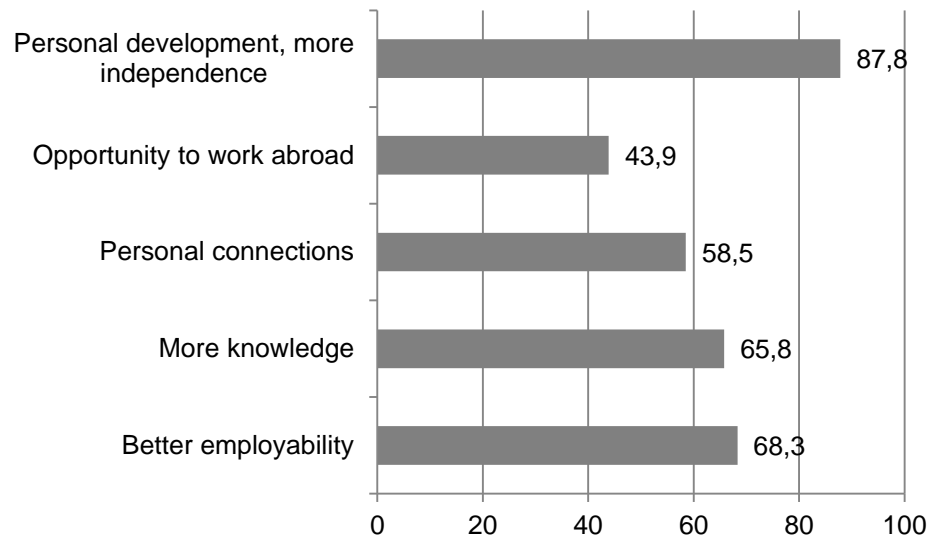
Graduates who studied abroad



# What role do practical and international experiences play in graduates employability?

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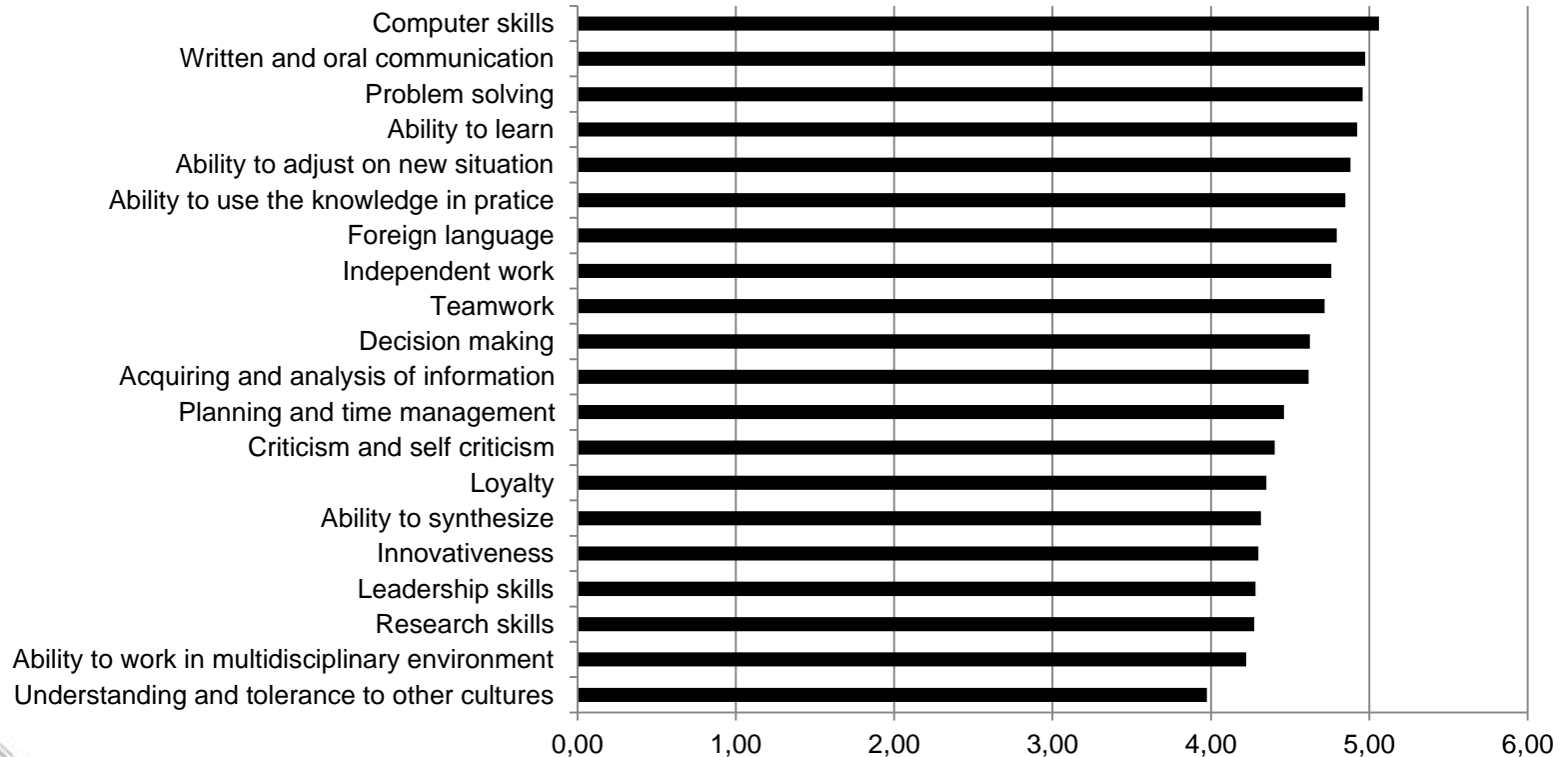
## How did study abroad affect your career?



# Which skills are important?

Survey of alumni members at FELU (graduates in 2009/10)

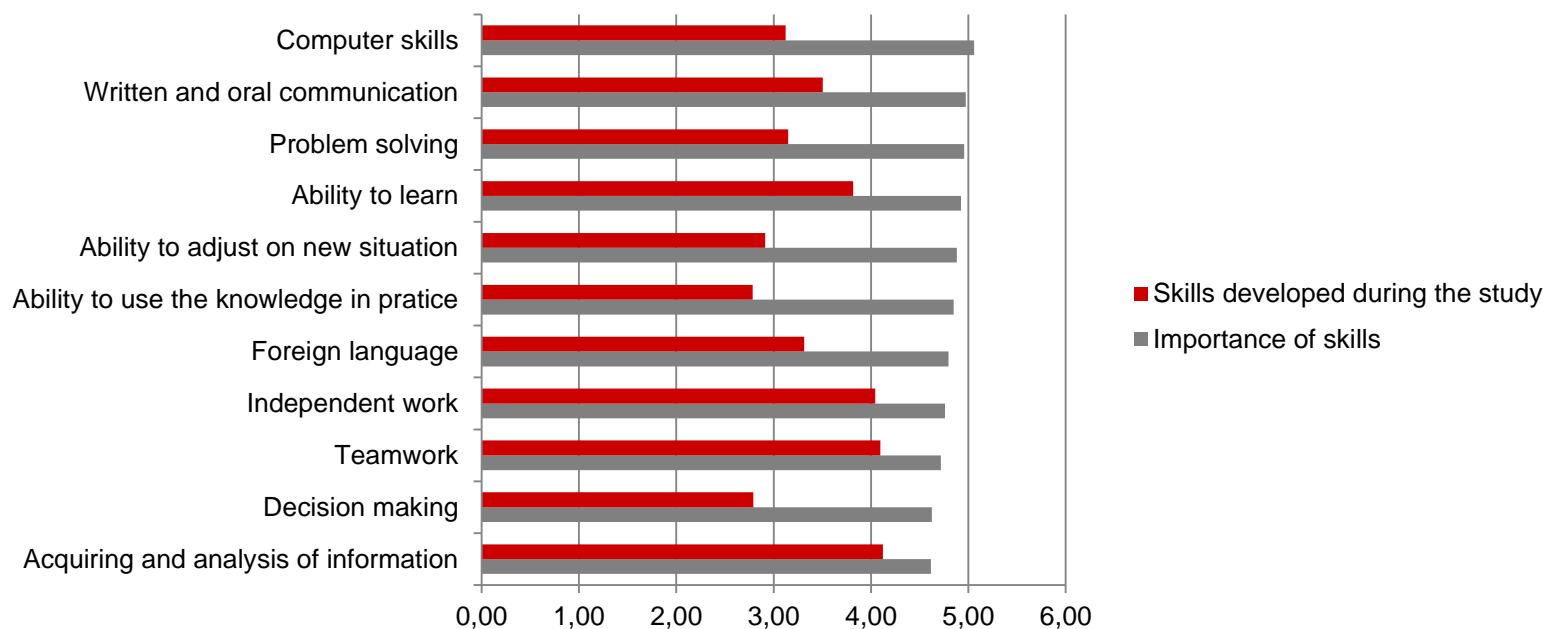
**Mark the importance of skills for your work (1-6)**



# Gap in skills?

Survey of alumni members at FELU (graduates in 2009/10)

## Skills developed during the study (1-6)



# CONCLUDING THOUGHTS

1. The transition of graduates on average differs when comparing different higher education institutions – also when we control for innate ability
2. Foreign experience (on the first sight) doesn't help much when looking for a first job, but more research on this phenomena needs to be done in the future.
4. There are various gaps in skills needed at work and being developed during the study=> room for improvement by HEI; need to conduct surveys on alumni

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**Thank you for your attention.**