

Winners and Losers After 25 Years of Transition
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Based on joint work with Suzana Laporšek, Matija Vodopivec and Milan Vodopivec. Research was conducted at the Statistical Office of the Republic of Slovenia

Yugoslav System: Socially Warranted Wage Bill

Discretionary Taxes: Profitable firms taxed to allow unprofitable firms to meet mandated pay

Compressed Pay Structure: Workers with 20 years of tenure paid 6.2 % more than entry worker

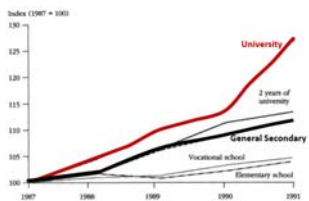
Liberalization begins in 1989 and has progressed gradually

T.W. Schultz (1975) Returns to human capital highest in disequilibrium

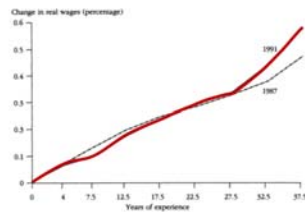
Schultz, Theodore W. "The value of the ability to deal with disequilibria." *Journal of economic literature* 13, no. 3 (1975): 827-846.

Returns to Human Capital Rise in the Early Transition

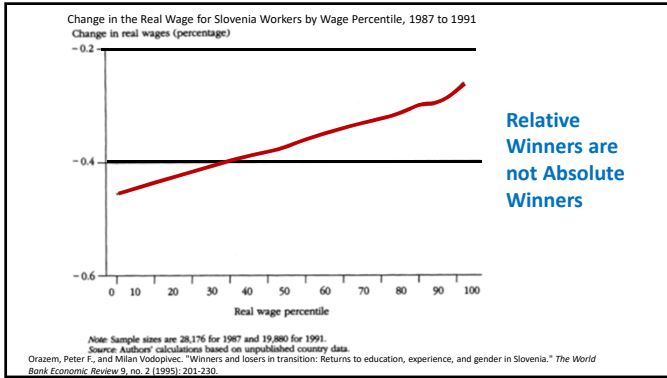
Returns to Education

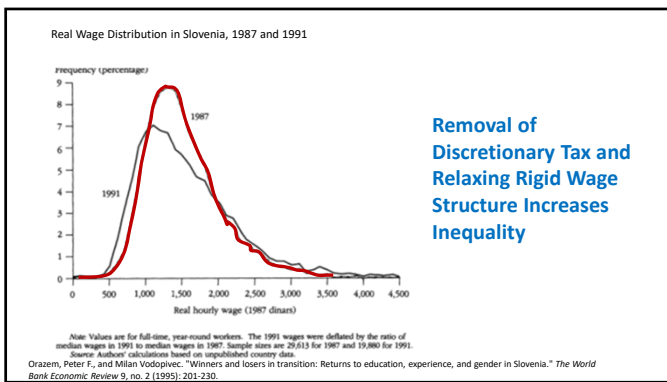


Returns to Experience



Orazem, Peter F., and Milan Vodopivec. "Winners and losers in transition: Returns to education, experience, and gender in Slovenia." *The World Bank Economic Review* 9, no. 2 (1995): 201-230.

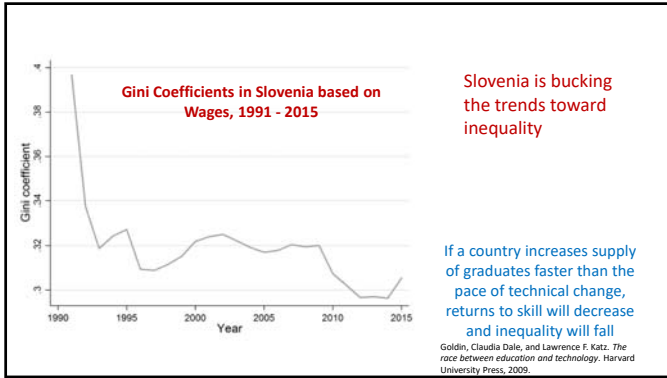




Findings

- Shift in relative wages and employment toward more educated
- Shift in relative wages and employment toward more experienced
- Women gained relative to men (sectoral advantage)
- Wage inequality increased

Results are consistent with the Schultz Hypothesis



Questions for Winners and Losers after 25 years

Have the early gains and losses persisted?

- Education?
- Experience?
- Gender?

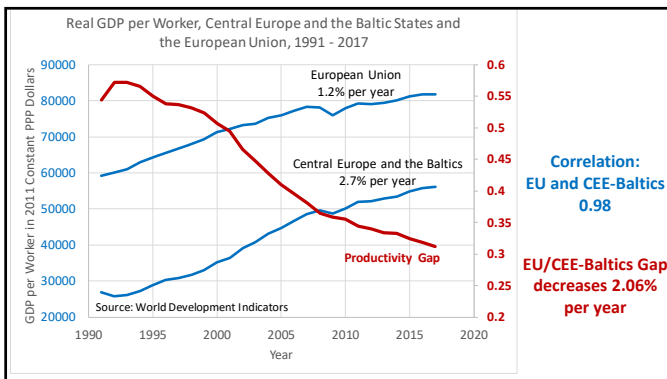
Did inequality persist? No

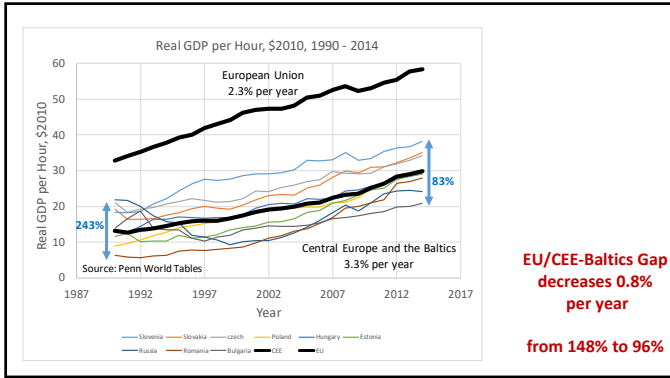
Have Slovenians won on average?

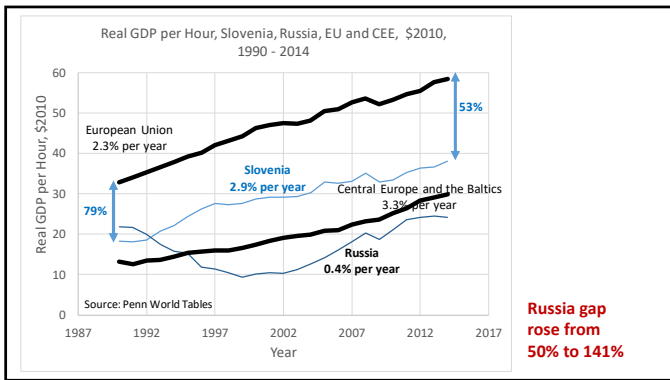
Have gains been concentrated among the young?

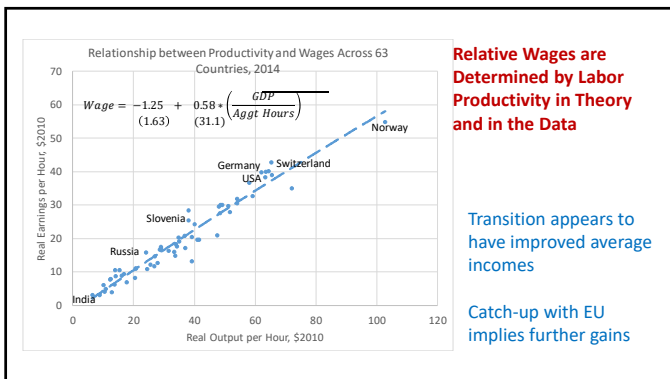
What are the prospects for the future or Slovenian labor market?

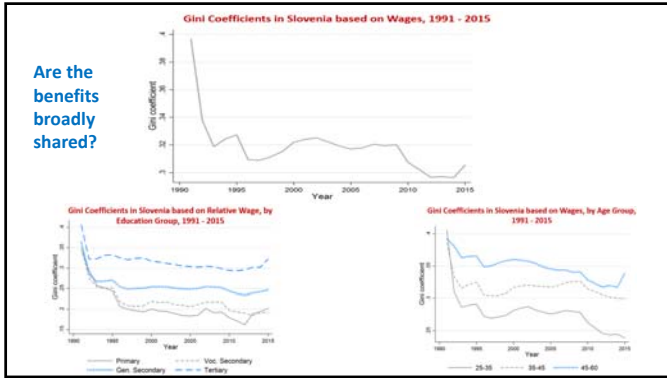
Policy implications?

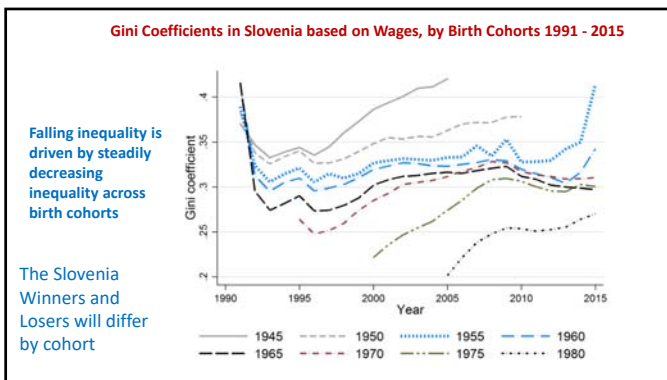










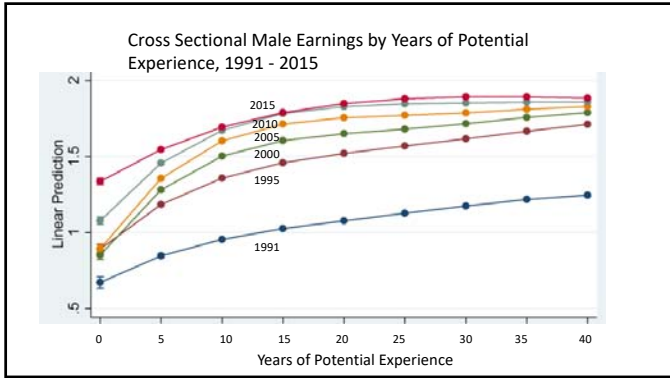


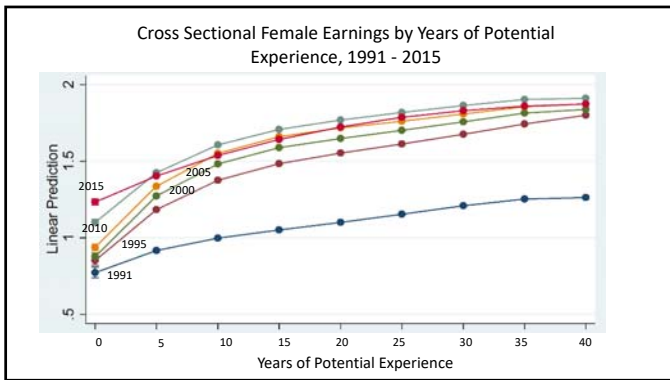
Analysis based on Mincer (1974) Log Earnings function links productive attributes to wages or productivity

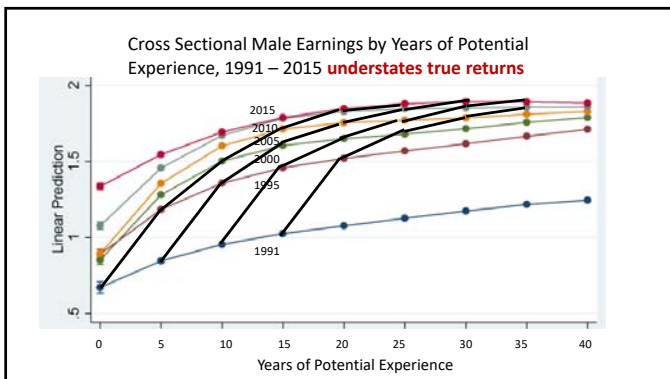
$$\ln(W_{it}) = \beta_{St} * \text{Schooling}_i + \beta_E * \text{Experience}_{it} + \beta_{EE} * \text{Experience}_{it}^2 + e_{it}$$

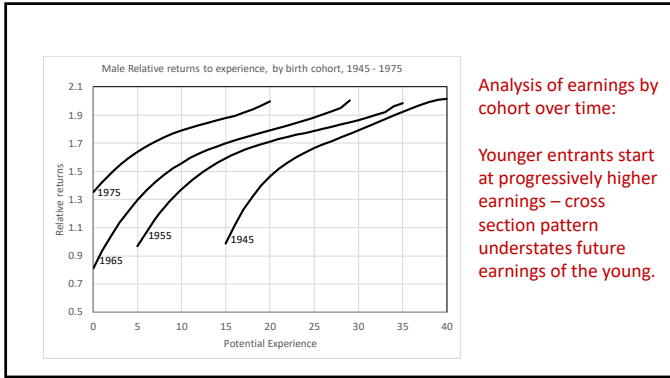
Linked Employer-Employee data
 Entire Slovenian workforce for the 1991-2016
 Pension and Disability Insurance Institute of Slovenia, Statistical Office of Slovenia

Universe of Employers
 Agency of the Republic of Slovenia for Public Legal Records and Related Service,
 Slovenian Business Registry



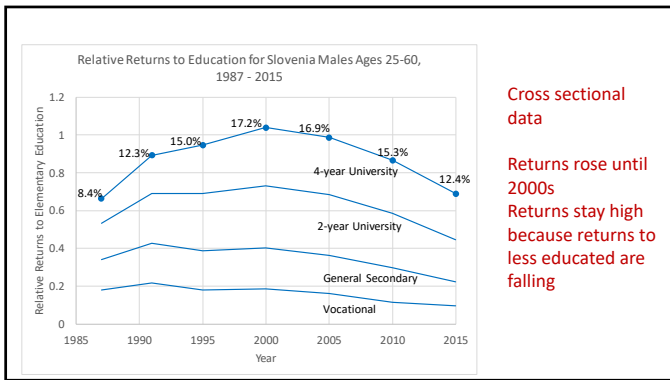






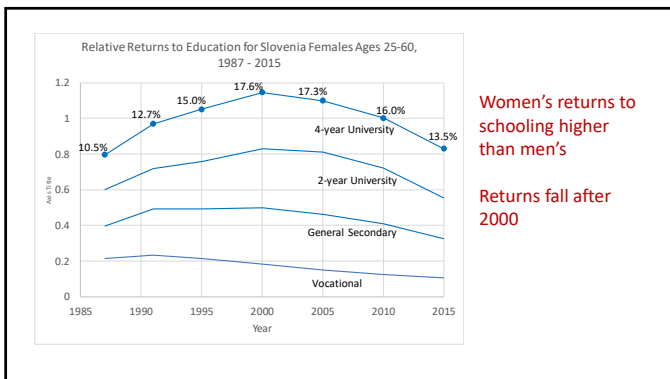
Analysis of earnings by cohort over time:

Younger entrants start at progressively higher earnings – cross section pattern understates future earnings of the young.



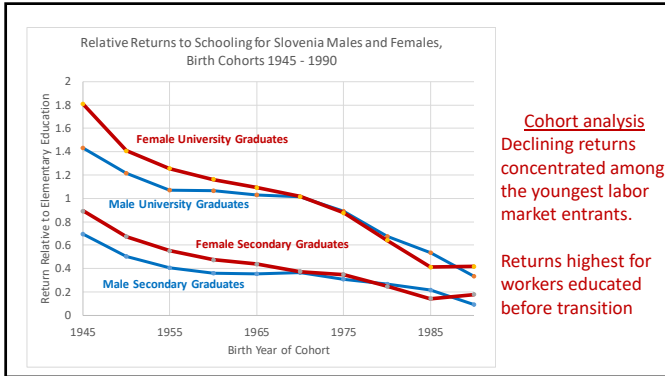
Cross sectional data

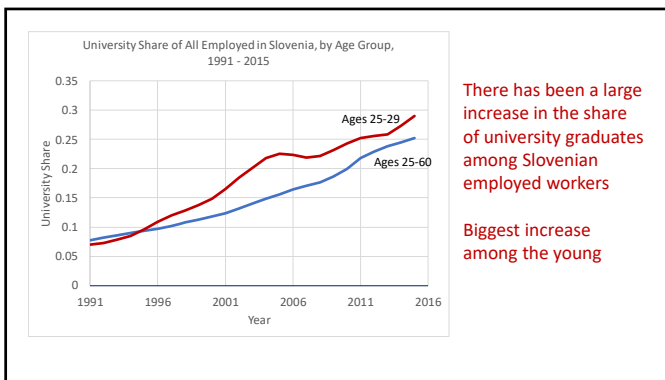
Returns rose until 2000s
Returns stay high because returns to less educated are falling

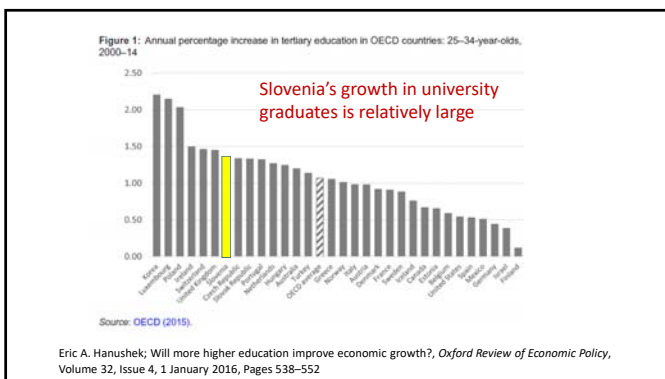


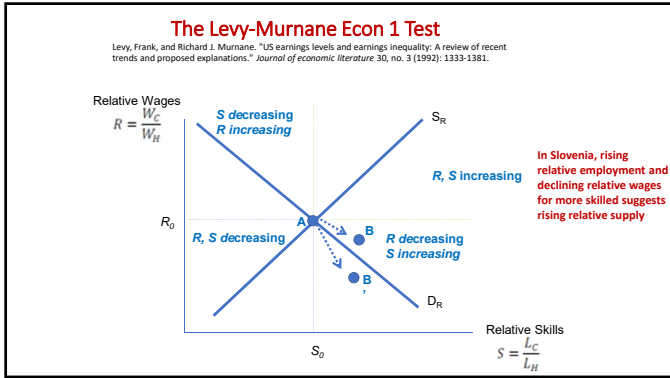
Women's returns to schooling higher than men's

Returns fall after 2000





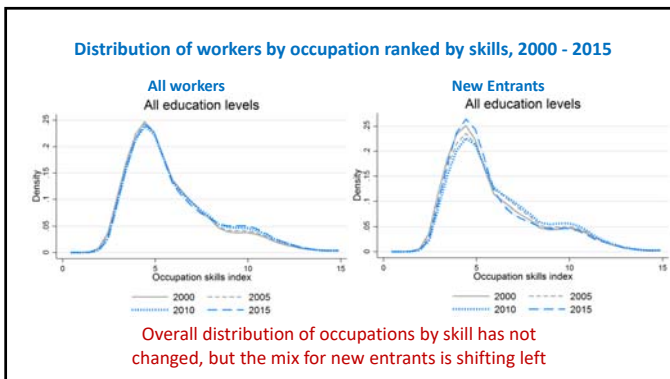


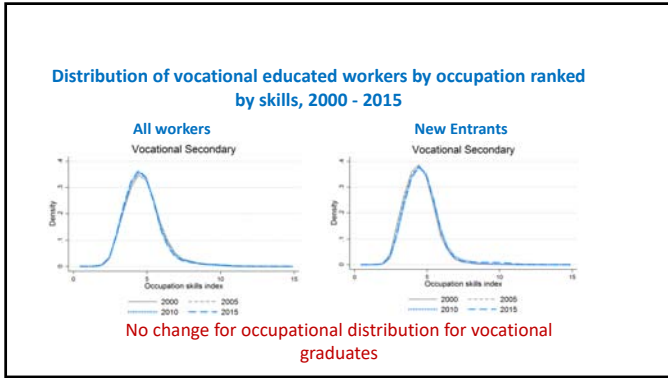


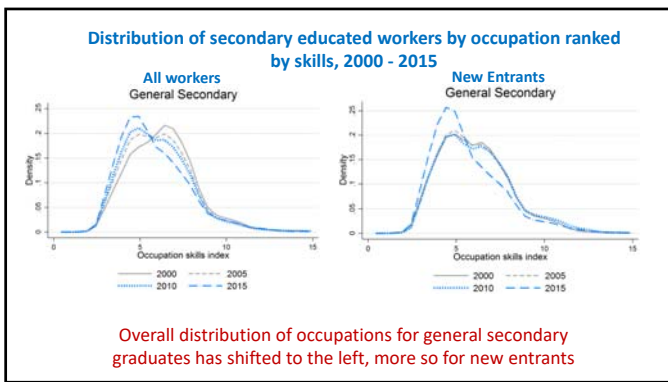
Why are young workers not getting the same rewards?

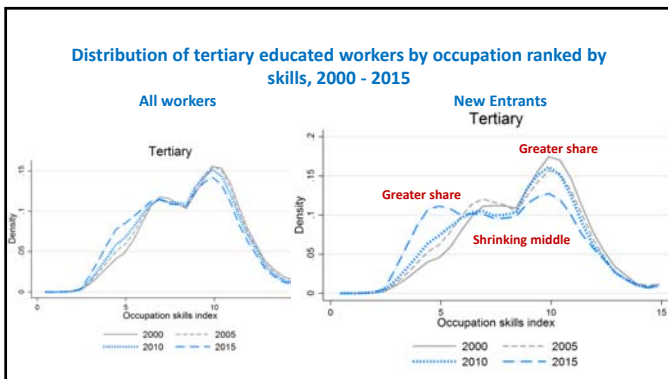
Shortfall of demand for young skilled workers is inconsistent with the evidence

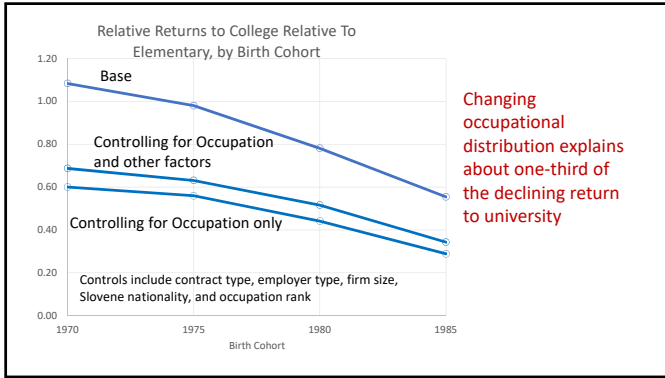
Occupation Mix defined by Skill-level
Excess Supply
Quality of Graduates

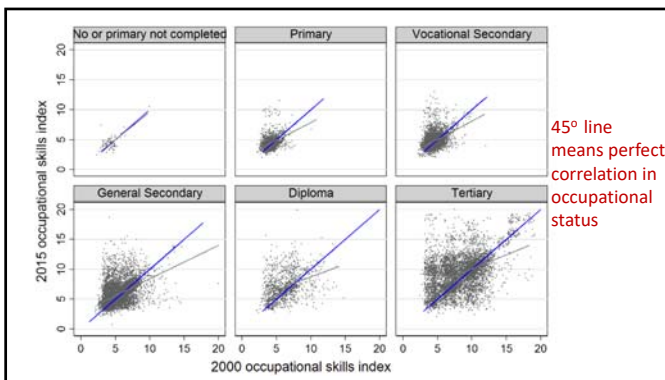








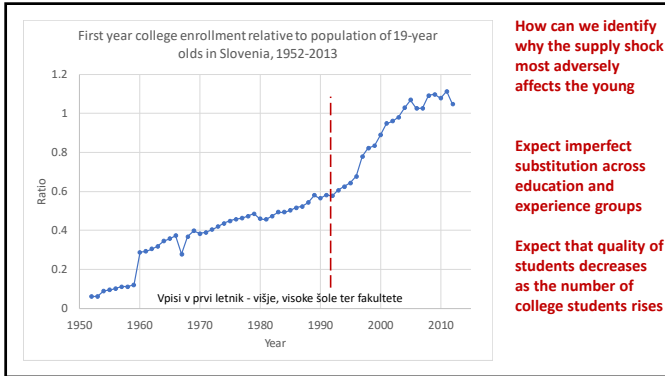


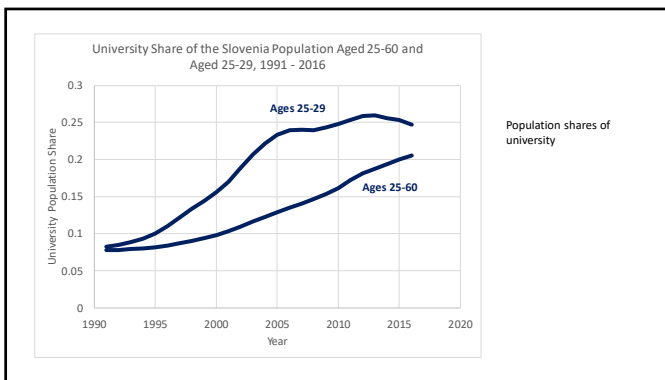


	Occupation index 2015	ln(Wage) in 2015
Occupation Index in 2000	0.571*** (0.00653)	0.0330*** (0.00165)
Occupation Index in 2015		0.0649*** (0.0649***)
Secondary	0.150*** (0.0494)	0.0607*** (0.0110)
2 Year College	0.733*** (0.0484)	0.0707*** (0.0109)
University	2.274*** (0.0536)	0.241*** (0.0124)
Fixed Term Contract		-0.238*** (0.0114)
Fixed Term Contract in 2000		-0.0505*** (0.00588)
R-Squared	0.58	0.44
N	21,694	20,933

Regression based on labor market entrants in 2000

Scarring— permanent cost to starting in a bad occupation and a bad contract





Estimating the Effect of College Supply on Cohort Earnings

$$\ln\left(\frac{w_{jt}^C}{w_{jt}^H}\right) = -\frac{1}{\sigma_{edu}} \ln\left(\frac{C_t^e}{H_t}\right) - \frac{1}{\sigma_A} \left[\ln\left(\frac{C_{jt}^e}{H_{jt}}\right) - \ln\left(\frac{C_t^e}{H_t}\right) \right] + (\beta_\theta) \ln(\theta_{jt})$$

Relative College to Secondary Earnings	Relative College to High School Employment	Relative College to High School Employment in the cohort	Cohort Share entering College
Expected effect:	negative	negative	negative

Estimating the Effect of College Supply on Cohort Earnings

	Men	Women	All
Education Substitution			
$-\frac{1}{\sigma_{edu}}$	-1.417***	-0.996***	-1.290***
	(0.253)	(0.102)	(0.146)
Age Substitution			
$-\frac{1}{\sigma_A}$	-0.0133	-0.0587***	-0.0841***
	(0.0251)	(0.0117)	(0.0187)
Cohort Share going to College			
β_θ	-0.349***	-0.325***	-0.387***
	(0.0313)	(0.0204)	(0.0214)
R ²	0.572	0.653	0.698
$\ln\left(\frac{w_t^c}{w_t^h}\right) = -\frac{1}{\sigma_{edu}} \ln\left(\frac{C_t^c}{H_t^c}\right) - \frac{1}{\sigma_A} \left[\ln\left(\frac{C_t^c}{H_t^c}\right) - \ln\left(\frac{C_t^h}{H_t^h}\right) \right] + (\beta_\theta) \ln(\theta_t)$			

Policy Analysis

- relax constraints on firm entry or expansion
- Relax constraints on contracting and reduce employment protection or mandatory severance
- encourage foreign investment to shift demand for skill outward-- Foreign firms should be attracted by relatively inexpensive access to skill
- lessen supply of weaker college grads by removing support for underperforming students
- current strategy encourages outmigration of the best and brightest
