# Inactive Youth in Turkey: Gender and Regional Gaps

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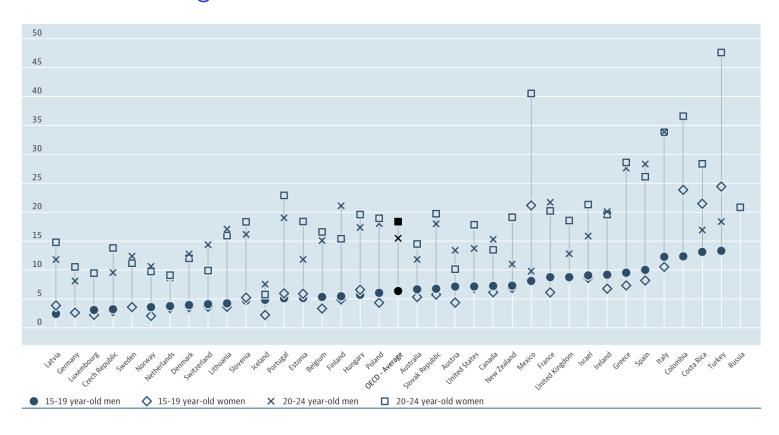
**BELGRADE** 

# Outline

- Motivation and Introduction
- 2 Literature Review
- 3 Data and Methodology
- 4 Analysis, Findings and Discussion
- Conclusion

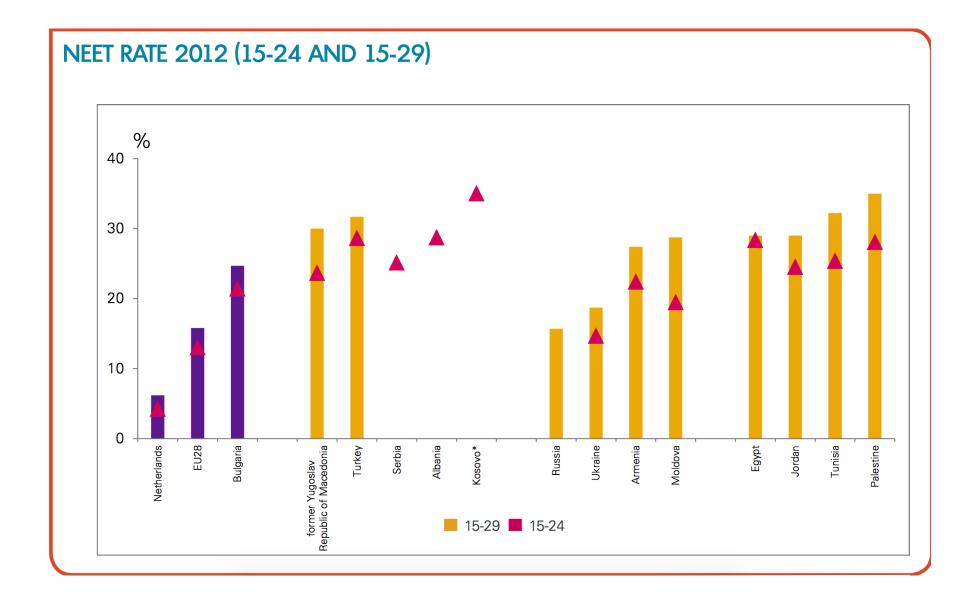
- Demographic window: opportunity or treat
- Economic costs of inactive youth: NEETs
- Immigration: International externalities
- Mediterranean or Balkan Spring ?

Figure: Neets across OECD countries



- About 5.5 million in NEET
- The unemployment rate is rising

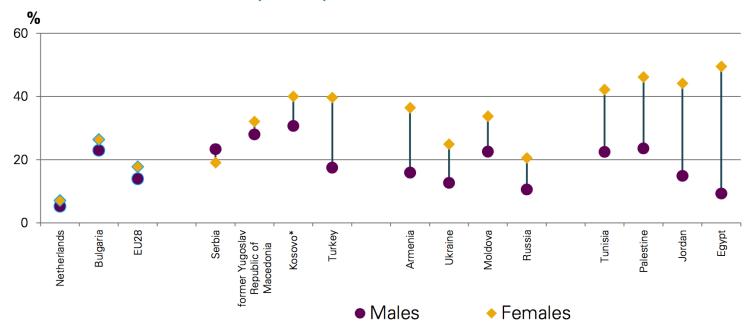
- Syrian migrants put pressure on the labor market
- Expansion of tertiary education is a temporary and a partial solution



- The divergence among European countries is striking
- North and South divide is visible

- Norms (i.e. living with the family) or structural macroeconomic obstacles?
- Gender matters for some countries

#### **NEET RATE BY GENDER 2012 (15-29)**



Sources: Turkey: Eurostat; Serbia, Kosovo: National Statistical Offices; former Yugoslav Republic of Macedonia, Armenia, Ukraine, Moldova, Russia, Tunisia, Palestine, Jordan, Egypt: ETF calculations based on ILO SWTS surveys. Year: 2010: Serbia; 2011: Kosovo; 2013: Moldova, Palestine, Tunisia, Ukraine; Age range 15-24: Kosovo, Serbia.

- NEET definition varies; age group and labour force status
- Gender gap
- Poverty
- Migrants
- School drop-outs
- Social exclusion

- Low levels of female labour force participation
- Female % 32 versus Male % 72

- Principal caretakers
- School drop-outs
- Literature is booming as the term has been coined in early 2000s

- Erdogan et. al.(2016) use own survey
- Better education reduces NEET probability
- Being older increases the NEET probability of women but not of men
- Tertiary education for female is a remedy for women; the highest NEET rate for men
- Kurdish youth more likely
- Households income matters

Household Labor Survey of 2010

- Very large; annually 100 thousand households
- Representative
- Household characteristics
- Regional breakdown

Table: Summary statistics: Total

Variable	Mean	Std. Dev.	N
NEETreal	0.367	0.482	121726
LogHincome	0.864	2.443	121726
LogHincomeSQ	6.715	19.217	121726
migrant	0.261	0.439	121726
caretaker	0.024	0.152	121726
child	0.644	0.479	121726
partner	0.145	0.352	121726
no children	1.092	1.335	121726
education	3.277	1.383	121726
parenteducation	2.732	1.499	121726

Table: Summary statistics: Female

Variable	Mean	Std. Dev.	N
NEETfemale	0.525	0.499	62966
LogHincome	0.632	2.132	62966
LogHincomeSQ	4.944	16.858	62966
migrant	0.269	0.444	62966
caretaker	0.045	0.208	62966
child	0.54	0.498	62966
partner	0.279	0.448	62966
no children	1.238	1.368	62966
education	3.114	1.439	62966
parenteducation	2.772	1.521	62966

Table: Summary statistics: Male

Variable	Mean	Std. Dev.	N
NEETmale	0.199	0.399	58760
LogHincome	1.112	2.716	58760
LogHincomeSQ	8.612	21.297	58760
migrant	0.252	0.434	58760
caretaker	0	0.012	58760
child	0.756	0.429	58760
partner	0.001	0.037	58760
no children	0.935	1.28	58760
education	3.451	1.297	58760
parenteducation	2.689	1.473	58760

Logit regressions and marginal effects

- Being a NEET: dichotomous dependent variable
- Not in employment, in education, in training
- Within ages 15-29
- Can be in or out of labour force

Data and Methodology

	(1) NEETfemale	(2) NEETmale
main		
	-1.151***	-0.653***
LogHincome		
	(0.0635)	(0.0786)
LogHincomeSQ	0.118***	0.0540***
3	(0.00788)	(0.00990)
	(0.00100)	(0.00330)
primary	-0.268***	-1.095***
	(0.0345)	(0.0468)
	,	,
secondary	-1.879***	-1.375 <sup>***</sup>
,	(0.0289)	(0.0374)
	,	,
high school	-1.349***	-0.630***
	(0.0333)	(0.0405)
	,	,
voc. high	-1.179 <sup>***</sup>	-0.951***
· ·	(0.0393)	(0.0460)
	,	,
tertiary	-1.574 <sup>***</sup>	-0.476***
•	(0.0382)	(0.0466)
	,	,
Constant	1.428***	-0.285 <sup>***</sup>
	(0.0255)	(0.0330)
Observations	62966	58760

Standard errors in parentheses  $^*$  p < 0.05,  $^{**}$  p < 0.01,  $^{***}$  p < 0.001

- Household income has a non-linear influence
- Marriage status or being child
- Number of children in the household is important
- Being the caretaker is critical
- can take care of the children or the elderly

	(1)		(2)	
	NEETfe	emale	NEETr	nale
main				
LogHincome	-1.302***	(-19.83)	-0.706***	(-8.79)
LogHincomeSQ	0.139***	(17.00)	0.0598***	(5.91)
migrant	0.0636**	(2.85)	-0.0628*	(-2.26)
child	-0.600***	(-23.99)	0.739***	(23.29)
partner	1.159***	(37.70)	0.586	(1.87)
OWN EDUCATION		, ,		, ,
primary	-0.722***	(-19.00)	-0.805***	(-16.36)
secondary	-1.498 <sup>***</sup>	(-47.31)	-1.252***	(-31.57)
high school	-0.889***	(-23.39)	-0.242***	(-5.41)
voc. high	-0.971***	(-22.07)	-0.641***	(-12.84)
tertiary	-1.061***	(-23.85)	0.0170	(0.32)
no children	0.0484***	(6.38)	-0.0614***	(-6.89)
east	0.136***	(6.95)	0.170***	(7.23)
_cons	1.455***	(34.58)	-0.733***	(-13.95)
N	62966		58760	

t statistics in parentheses p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

## Table: Marginal Effects of Parent Education: Female

	(1)
VARIABLES	Predicted prob.
caretaker	0.580***
	(0.0244)
child	-0.134***
	(0.00626)
partner	0.266***
	(0.00772)
primary	-0.0542***
	(0.00658)
secondary	-0.0716***
	(0.00911)
high school	-0.186***
	(0.00985)
voc. high	-0.142***
	(0.0105)
tertiary	-0.281***
-	(0.0102)
east	0.0344***
	(0.00490)
	,
Observations	62,966

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Table: Marginal Effects of Parent Education: Male

	(1)
VARIABLES	Predicted prob.
caretaker	0.394***
	(0.117)
child	0.103***
	(0.00438)
partner	0.0820*
	(0.0439)
primary	-0.0533***
	(0.00516)
secondary	-0.0661***
	(0.00678)
high school	-0.124***
	(0.00646)
voc. high	-0.111***
	(0.00717)
tertiary	-0.133** <sup>*</sup>
-	(0.00648)
east	0.0237** <sup>*</sup>
	(0.00327)
	` ,
Observations	58,760

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

- Parents' education matters
- Own education effects are heterogeneous
- University graduation is not a remedy

- Migrants are more likely
- Eastern regions host more NEETs
- Kurdish regions even more

#### Table: Marginal Effects of Regions: Female

	(1)
VARIABLES	Predicted prob.
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	0 000444
West Marmara	-0.082***
_	(0.012)
Aegean	-0.0001
	(0.0097)
East Marmara	0.0199*
	(0.0105)
West Anatolia	0.0309**
	(0.0095)
Mediterrenean	0.102***
	(0.010)
Middle Anatolia	-0.124***
	(0.0112)
West Blacksea	-0.0529***
	(0.011)
East Blacksea	-0.041***
	(0.012
Northeast Analtolia	0.047***
	(0.011)
Middleeast Analtolia	0.136***
	(0.011)
Southeast Analtolia	0.169***
	(0.009)
Observations	62,966
C	

Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Figure: 12 Large Regions



VARIABLES	(1) Predicted prob.
.,	· · · · · · · · · · · · · · · · · · ·
West Marmara	-0.002
	(0.0076)
Aegean	0.0125**
3	(0.006)
East Marmara	0.007
	(0.006)
West Anatolia	-0.007
	(0.006)
Mediterrenean	0.022***
	(0.006)
Middle Anatolia	-0.025***
	(0.007)
West Blacksea	-0.020**
	(0.007)
East Blacksea	0.049***
	(0.007
Northeast Analtolia	0.007
	(0.007)
Middleeast Analtolia	0.065***
	(800.0)
Southeast Analtolia	0.073***
	(800.0)
01	F0.760
Observations	58,760

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

- Substantial social, economic and political costs of NEETs
- Cultural norms and institutions have their inertia
- Parental education and geography all play roles

- Panel data required
- Matching methods can be used

- Comparative studies are needed
- Serbia versus Turkey, for example :)