

# The impact of personality traits and economic preferences on internal migration and labor market outcomes in Ukraine

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*work in progress*

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# Outline of the Presentation

- 1 Motivation
- 2 Literature Review and research questions
- 3 Data and Descriptives
- 4 Estimation Results
- 5 Conclusion and extension

# Motivation

- The importance of personality traits on behavior has been discussed in the psychology literature for decades
- Only recently have economists started to look at personality traits and their importance for life outcomes
- Little is known about how personality traits impact microeconomic behavior
- we are interested in:
  - Internal (in particular rural to urban) migration decisions
  - labor market outcomes
- here I only discuss internal migration

# Motivation

- There is a relatively large literature discussing the link between risk and social preferences and microeconomic behavior
- No empirical evidence on the relationship between risk and social preferences and personality traits
- We provide some evidence on the complementarity or substitutability of these two types of factors determining migration decisions and labor market outcomes

## Literature Review - (1) personality traits

- We ignore the large literature in psychology and focus on the economic literature
- Articles in the Special Issue of JHR 2008 ed. by Bas ter Weel, in particular:
  - Borghans et al. on Interpersonal styles (caring and directness) and labor market outcomes
  - Cunha and Heckman on Formulating, identifying and estimating the technology of cognitive and noncognitive skill formation
  - Borghans et al. on The economics and psychology of personality traits

## Literature Review - (1) personality traits, cont.

- other seminal papers by Heckman et al. on the formation of cognitive and noncognitive skills and the contribution of family investment in early vs. older childhood to this formation
- Cobb-Clark (2010) provides a summary on the link between personality and labor market outcomes in terms of wages, occupation, job search by the unemployed and broader labor market success

## Literature Review - (2) risk and social preferences

Two strands of literature looking at the relation of risk attitudes and labor market choices:

- Small literature that looks at question whether risk attitudes can be influenced by life events, changes in labor market state or macroeconomic shocks (Malmendier and Nagel (2011), Sahm 2012, Guiso et al. 2014, Cohn et al. 2015, Dohmen et al. 2016).
- Large literature that discusses how risk attitudes impact on the labor market, e.g., geographical mobility (Jaeger et al. 2010, Akguc et al. 2015, Butikofer and Peri 2015), self-employment (Caliendo et al. 2013), occupational sorting (Bonin et al. 2007, Skriabikova et al. 2014), informal employment (Dohmen, Khamis and Lehmann 2016).

## Research questions

- How do personality traits (the "Big Five") affect the migration behavior of individuals within a country?
- To what extent do risk and social preferences play a role in this migration decision?
- Is the impact of personality traits and preferences on labor market outcomes different for movers vs. stayers?
- We answer these questions using the Ukrainian Longitudinal Monitoring Survey (ULMS)

# Data

- ULMS - 4 year panel: 2003, 2004, 2007 and 2012
- the most comprehensive labor market survey in the transition region with information on:
  - Individual characteristics of respondents
  - Education, cognitive and noncognitive skills (noncognitive skills only in 2012)
  - Risk, social and time preferences (only in 2007 and 2012)
  - Main job characteristics (if employed) and non-employment between survey periods
  - Main and secondary job characteristics in the reference week
  - Unemployment and job seeking in the reference week
  - Information on changes of residence

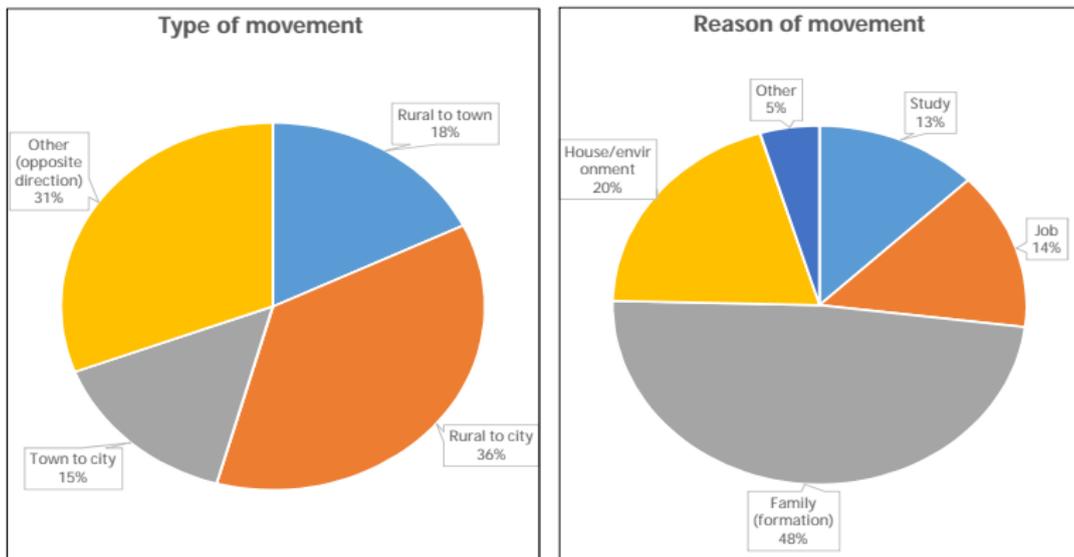
## Variables of interest

**First outcome variable:** A binary indicator for change of settlement (village/town/city) is generated exploiting the questions:

- Section A. *Type of present settlement:*
  1. Village (classified as “rural”)
  2. Town type rural settlement (classified as “rural”)
  3. Small town (up to 20 thds.) (classified as “town”)
  4. Medium town (20 – 99 thds.) (classified as “town”)
  5. City (100 – 499 thds.) (classified as “city”)
  6. Large city (more than 500 thds.) (classified as “city”)
- Subsection H.2. *Previous place of residence:* Type of of last settlement before moving to the current town/village/settlement (same classification: 1 “rural” 2 “town” 3 “city”) (This subsection is only in 2007 & 2012 surveys!)

## Movement characteristics

Out of 3.021 movers (16.5% of the sample population):



## Variables of interest: Personality traits

How do you see yourself?		<i>Almost always</i>	<i>Most of the time</i>	<i>Some of the time</i>	<i>Almost never</i>	
1	Are you talkative?	1	2	3	4	<input type="checkbox"/>
2	When doing a task, are you very careful?	1	2	3	4	<input type="checkbox"/>
3	Do you come up with ideas other people haven't thought of before?	1	2	3	4	<input type="checkbox"/>
4	Do you like to keep your opinions to yourself? Do you prefer to keep quiet when you have an opinion?	1	2	3	4	<input type="checkbox"/>
5	Are you relaxed during stressful situations?	1	2	3	4	<input type="checkbox"/>
6	Do you finish whatever you begin?	1	2	3	4	<input type="checkbox"/>
7	Do people take advantage of you?	1	2	3	4	<input type="checkbox"/>
8	Do you work very hard? For example, do you keep working when others stop to take a break?	1	2	3	4	<input type="checkbox"/>
9	Do you forgive other people easily?	1	2	3	4	<input type="checkbox"/>
10	Do you tend to worry?	1	2	3	4	<input type="checkbox"/>
11	Are you very interested in learning new things?	1	2	3	4	<input type="checkbox"/>
12	Do you prefer relaxation more than hard work?	1	2	3	4	<input type="checkbox"/>
13	Do you enjoy working on things that take a very long time (at least several months) to complete?	1	2	3	4	<input type="checkbox"/>
14	Do you enjoy beautiful things, like nature, art and music?	1	2	3	4	<input type="checkbox"/>
15	Do you think about how the things you do will affect you in the future?	1	2	3	4	<input type="checkbox"/>
16	Are you very polite to other people?	1	2	3	4	<input type="checkbox"/>
17	Do you work very well and quickly?	1	2	3	4	<input type="checkbox"/>
18	Do you get nervous easily?	1	2	3	4	<input type="checkbox"/>
19	Are you generous to other people with your time or money?	1	2	3	4	<input type="checkbox"/>
20	Are you outgoing and sociable, for example, do you make friends very easily?	1	2	3	4	<input type="checkbox"/>
21	Do you think carefully before you make an important decision?	1	2	3	4	<input type="checkbox"/>
22	Are people mean/not nice to you?	1	2	3	4	<input type="checkbox"/>
23	Do you ask for help when you don't understand something?	1	2	3	4	<input type="checkbox"/>
24	Do you think about how the things you do will affect others?	1	2	3	4	<input type="checkbox"/>

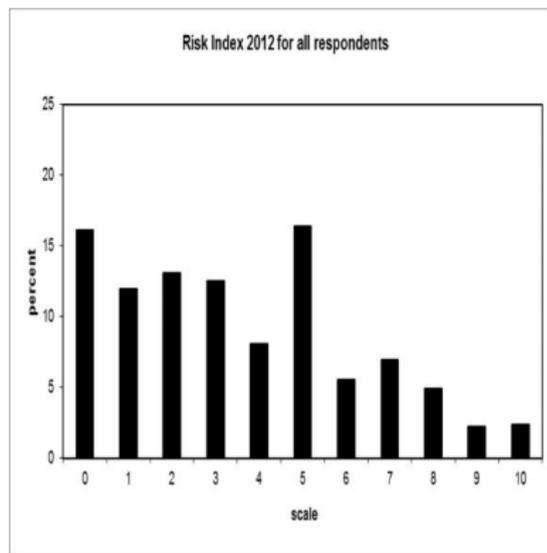
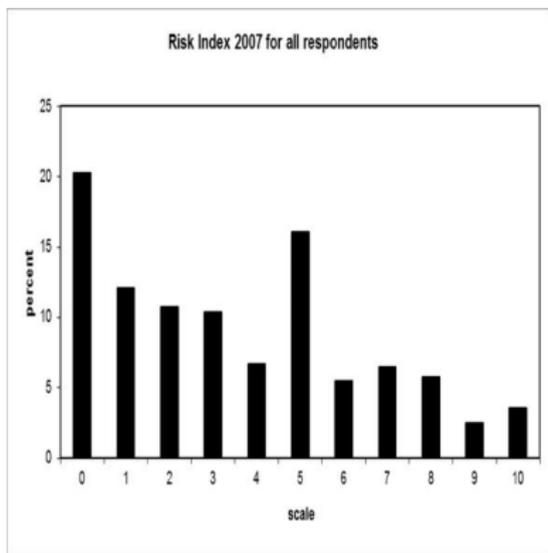
## Variables of interest: Personality traits

- Big 5 - OCEAN: **O**penness to experience, **C**onscientiousness, **E**xtroversion, **A**greeableness, **N**eurotism
- Following Heckman et al. (2014), we group the 24 items of the previous slide into these 5 categories:
  - O**: creative (3), open to new (11), nature/art/music (14)
  - C**: careful (2,21), result-oriented (6), hard-working (8,12,17), patient(13)
  - E**: talkative (1), introvert (4), sociable (20)
  - A**: exploited by others (7), forgiver (9), polite (16), generous (19), asking help (23)
  - N**: relaxed (5), worried (10), nervous (18), locus of control (15,24), rudeness (22)

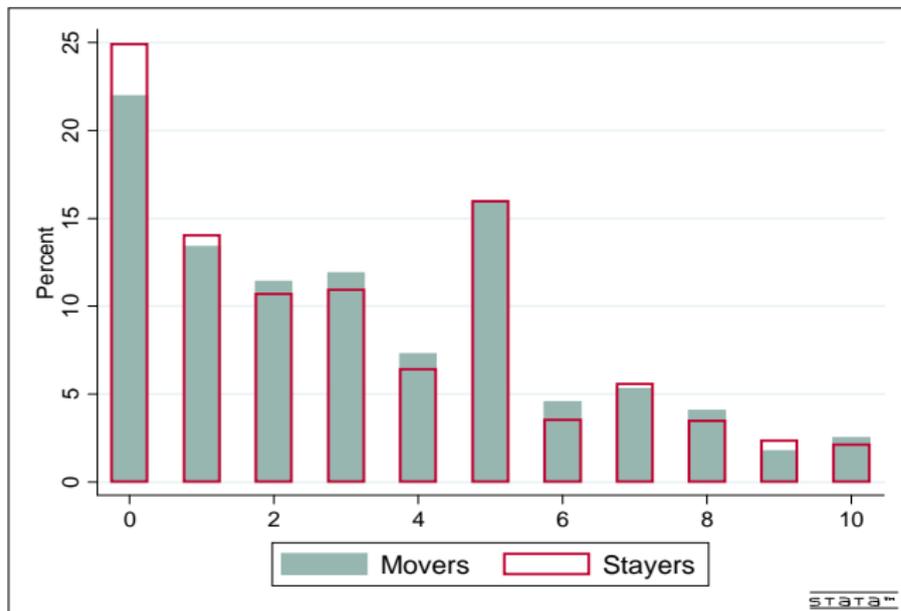
## Variables of interest: Preferences

- **Risk preference:** “Are you generally a person who is fully willing to take risks or do you try to avoid taking risks?”  
Scale is from 0 “Completely unwilling to take risks” to 10 “Completely willing to take risks”
- **Social preference:** “Are you a person who in general trusts other persons, or are you a person who rather does not trust other persons?”  
Scale is from 0 “I do not trust other persons at all” to 10 “I trust other persons completely” .
- Binary indicators are used in our analysis: a dummy variable indicating 1 if the scale is 6-10, and 0 otherwise.

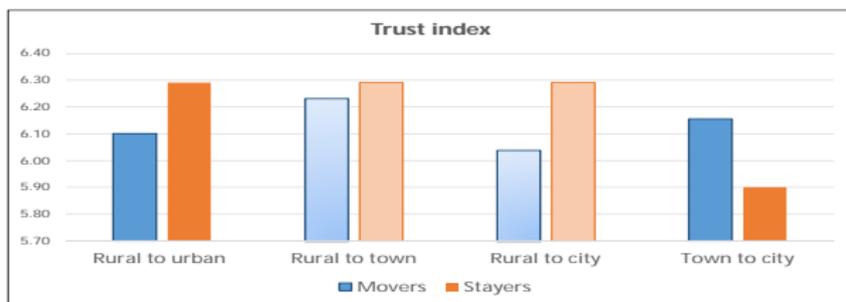
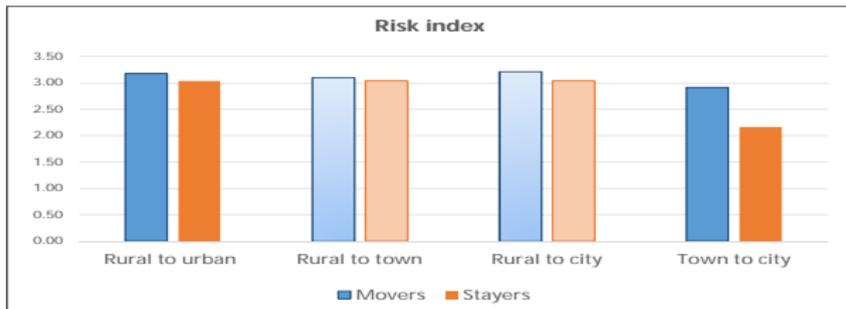
## Risk index in 2007 and 2012



## Risk index of rural-to-urban movers vs rural stayers



## Risk index by type of movement



## Other variables of interest

Demographic and personal characteristics as control variables:

- Exogenous variables (i.e. age, sex, ethnicity (Ukrainian/Russian), preferred language for communication)
- Additional variables that may be jointly determined with migration decisions (i.e. education, marital status, number of kids, health problem, employment status, total household income)

## Summary statistics

	Overall sample	Rural-to-Urban Movers	Rural Stayers
Age	43.48	51.93	50.18
Female	0.57	0.61	0.63
Education(scale 1-4)	2.66	2.86	2.65
Basic secondary (%)	17.68	8.02	13.49
General secondary (%)	18.49	16.34	21.20
Vocational (%)	44.02	57.04	51.89
Higher (%)	19.82	18.60	13.43
Married	0.64	0.73	0.73
No kids	1.58	1.80	2.06
Ethnicity: Ukraine	0.81	0.80	0.85
Preferred language: Ukrainian	0.49	0.46	0.68
Having a health problem	0.42	0.48	0.42
Employed	0.46	0.48	0.38
Household income	1,456.32	2,462.42	1,874.21

## Empirical specification

$$Y_{it} = \alpha + \beta_1 \textit{Trait}_{it} + \beta_2 \textit{Risk}_{it} + \beta_3 \textit{Trust}_{it} + X'_{it}\Omega + \epsilon_{it} \quad (1)$$

where:  $Y_{it}$  is a binary variable, equal to 1 if s/he moves from rural-to-urban, and 0 if s/he stays in the rural area.  $\textit{Trait}_{it}$  is a vector of personality trait variables (in 2012).  $\textit{Risk}_{it}$  and  $\textit{Trust}_{it}$  indicate the risk and social preference variables.  $X_{it}$  is a vector of control variables including demographic and labor market characteristics (described before).

Additional analyses are conducted by:

- disaggregating the outcome variable into “rural-to-town” and “rural-to-city” movements.
- using “town-to-city” movement as an additional outcome variable. In this case, the comparison group consists of stayers in the town.

# Estimation Results: Personality traits

More

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	rural-to-urban	rural-to-urban	rural-to-urban	town-to-city	town-to-city	town-to-city
talkative	0.00845 (0.0212)	0.0270 (0.0211)	0.0180 (0.0228)	-0.0611 (0.0487)	-0.0225 (0.0526)	-0.0202 (0.0562)
careful1	0.00678 (0.0185)	0.0180 (0.0349)	0.0607 (0.0482)	0.0312 (0.0715)	0.0245 (0.0716)	0.152* (0.0801)
creative	0.0411** (0.0216)	0.0492** (0.0215)	0.0721*** (0.0221)	-0.0124 (0.0384)	-0.0124 (0.0481)	0.0141 (0.0544)
reserved	0.0249 (0.0207)	0.0259 (0.0204)	0.0259 (0.0219)	-0.0319 (0.0471)	-0.0249 (0.0468)	-0.0602 (0.0516)
relaxed1	0.0148 (0.0208)	0.0248 (0.0203)	0.0348 (0.0218)	0.0608 (0.0455)	0.0621 (0.0455)	0.0958* (0.0513)
ending tasks	0.145*** (0.0170)	0.120*** (0.0168)	0.0990** (0.0181)	0.0201 (0.0163)	0.0204 (0.0182)	-0.0380 (0.0176)
exploited	-0.0674*** (0.0249)	-0.0469* (0.0245)	-0.0582** (0.0246)	-0.0775 (0.0513)	-0.0617 (0.0527)	-0.147** (0.0589)
hard working	0.00193 (0.0218)	0.0025 (0.0214)	0.00112 (0.0211)	-0.0146 (0.0467)	-0.00300 (0.0467)	-0.00352 (0.0512)
forgiver	0.0238*** (0.0235)	0.0841*** (0.0232)	0.0383*** (0.0236)	0.0226 (0.0504)	0.00798 (0.0504)	-0.0405 (0.0584)
worried	0.0136 (0.0228)	0.00467 (0.0226)	0.0113 (0.0242)	-0.0316 (0.0524)	-0.0316 (0.0527)	0.1288** (0.0607)
interested in new	-0.0866** (0.0263)	-0.0841** (0.0260)	-0.0385* (0.0279)	-0.0677 (0.0668)	-0.0698 (0.0668)	0.0469 (0.0724)
relaxed2	-0.0899*** (0.0260)	-0.0851*** (0.0257)	-0.0711*** (0.0262)	-0.0908** (0.0462)	-0.0908** (0.0462)	-0.143*** (0.0522)
patient	0.0446** (0.0240)	0.0368* (0.0237)	0.0515** (0.0242)	-0.00608 (0.0462)	-0.0245 (0.0462)	-0.0119 (0.0584)
enjoy art/music	-0.0546 (0.0317)	-0.0625* (0.0311)	-0.0525* (0.0313)	0.223** (0.0863)	0.209*** (0.0863)	0.209*** (0.0989)
locus of control	0.00216 (0.0292)	0.00905 (0.0286)	0.00076 (0.0315)	-0.130** (0.0652)	-0.127** (0.0652)	-0.133 (0.0731)
polite	0.0211 (0.0377)	0.0211 (0.0371)	0.0211 (0.0408)	0.0628 (0.0952)	0.0628 (0.0952)	0.158 (0.111)
efficient	-0.00935 (0.0279)	-0.0199 (0.0279)	-0.0138 (0.0295)	-0.136** (0.0566)	-0.136** (0.0566)	-0.152** (0.0641)
nervous	0.0188 (0.0232)	0.0304 (0.0230)	0.0396 (0.0236)	-0.0399 (0.0529)	-0.0346 (0.0529)	-0.0501 (0.0602)
generous	0.0155 (0.0219)	0.0228 (0.0215)	0.0111 (0.0218)	0.00965 (0.0492)	0.0186 (0.0488)	0.0775 (0.0661)
sociable	0.0278 (0.0237)	0.0343 (0.0238)	0.0360 (0.0252)	0.0720 (0.0529)	0.0720 (0.0529)	0.0485 (0.0599)
careful2	0.0305 (0.0305)	0.0300 (0.0300)	0.0323 (0.0323)	0.0674 (0.0674)	0.0672 (0.0672)	0.0793 (0.0793)
rudely treated	0.0721*** (0.0298)	0.0393 (0.0293)	0.0318 (0.0318)	0.0887** (0.0703)	0.0887** (0.0703)	0.0385 (0.0946)
asking help	-0.00790 (0.0222)	-0.0256 (0.0222)	-0.0222 (0.0222)	-0.0919 (0.0481)	-0.0561 (0.0481)	-0.0266 (0.0584)
caring	-0.0105 (0.0306)	-0.0112 (0.0303)	0.00698 (0.0303)	0.0183 (0.0663)	0.0182 (0.0663)	-0.00688 (0.0663)
age	0.00442 (0.00442)	0.00442 (0.00442)	0.00613 (0.00613)	0.0102 (0.00913)	0.0102 (0.00913)	0.0176 (0.0136)
age square	-0.00094 (0.00094)	-0.00154 (0.00094)	-0.00154 (0.00615)	-0.0139 (0.0100)	-0.0139 (0.0100)	-0.0139 (0.0124)
female	-0.0106 (0.0213)	-0.0106 (0.0213)	-0.0106 (0.0240)	-0.0828** (0.0468)	-0.0828** (0.0468)	-0.188*** (0.0548)
language: ukrainian	-0.0591** (0.0279)	-0.0591** (0.0279)	-0.0591** (0.0294)	-0.0591** (0.0461)	-0.0591** (0.0461)	-0.0591** (0.0524)
ethnicity: ukrainian	0.0591** (0.0279)	0.0591** (0.0279)	0.0591** (0.0294)	0.0591** (0.0461)	0.0591** (0.0461)	0.0591** (0.0524)
education	0.0610*** (0.0136)	0.0610*** (0.0136)	0.0610*** (0.0136)	0.0610*** (0.0136)	0.0610*** (0.0136)	0.0610*** (0.0136)
married	0.00604 (0.0227)	0.00604 (0.0227)	0.00604 (0.0227)	0.00604 (0.0227)	0.00604 (0.0227)	0.00604 (0.0227)
no. kids	-0.00819** (0.0137)	-0.00819** (0.0137)	-0.00819** (0.0137)	-0.00819** (0.0137)	-0.00819** (0.0137)	-0.00819** (0.0137)
healthprob	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)
employed	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)	0.00615 (0.0227)
HH income	1.898e-05*** (3.48e-06)	1.898e-05*** (3.48e-06)	1.898e-05*** (3.48e-06)	1.898e-05*** (3.48e-06)	1.898e-05*** (3.48e-06)	1.898e-05*** (3.48e-06)
Constant	0.869*** (0.0366)	0.190* (0.110)	-0.0756 (0.154)	0.784*** (0.0829)	0.526** (0.212)	0.201 (0.330)
Observations	2,599	2,591	2,122	486	486	369
R-squared	0.049	0.093	0.130	0.079	0.110	0.205

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

# Estimation Results: Big 5 [More](#)

VARIABLES	(1) rural-to-urban	(2) rural-to-urban	(3) rural-to-urban	(4) town-to-city	(5) town-to-city	(6) town-to-city
openness to experience	0.0410* (0.0211)	0.0449** (0.0208)	0.0699*** (0.0222)	0.00555 (0.0440)	-0.00401 (0.0435)	0.0693 (0.0502)
conscientiousness	0.0975*** (0.0198)	0.0853*** (0.0195)	0.0872*** (0.0206)	-0.0356 (0.0427)	-0.0280 (0.0425)	-0.0574 (0.0496)
extraversion	0.0398** (0.0198)	0.0421** (0.0196)	0.0434** (0.0209)	-0.0631 (0.0420)	-0.0464 (0.0419)	-0.0870* (0.0478)
agreeableness	0.0216 (0.0201)	0.0318 (0.0197)	0.0195 (0.0209)	-0.0757* (0.0445)	-0.0701 (0.0439)	-0.0363 (0.0506)
neurotism	0.00217 (0.0195)	0.00269 (0.0193)	0.0113 (0.0206)	-0.0477 (0.0411)	-0.0308 (0.0410)	-0.0307 (0.0477)
age		0.00655 (0.00426)	0.00674 (0.00592)		0.00308 (0.00844)	0.00816 (0.0133)
age square		-0.00501 (0.00457)	-0.00169 (0.00616)		-0.00640 (0.00925)	-0.00799 (0.0139)
female		-0.0152 (0.0198)	0.00619 (0.0224)		0.0843** (0.0416)	0.0722 (0.0510)
language: ukrainian		-0.230*** (0.0199)	-0.183*** (0.0215)		-0.133*** (0.0443)	-0.140*** (0.0512)
ethnicity: ukrainian		0.0495* (0.0266)	0.0244 (0.0283)		0.0858* (0.0441)	0.116** (0.0521)
education			0.0593*** (0.0131)		0.0437 (0.0328)	0.0437 (0.0328)
married			-0.00252 (0.0258)		-0.0431 (0.0626)	-0.0431 (0.0626)
no. kids			-0.0989*** (0.0131)		-0.0588 (0.0366)	-0.0588 (0.0366)
health problem			0.0465** (0.0220)		0.0184 (0.0501)	0.0184 (0.0501)
employed			0.0929*** (0.0231)		0.117** (0.0551)	0.117** (0.0551)
HH income			1.92e-05*** (3.34e-06)		-3.74e-06 (6.74e-06)	-3.74e-06 (6.74e-06)
Constant	0.351*** (0.0226)	0.257** (0.102)	0.0251 (0.144)	0.807*** (0.0487)	0.747*** (0.188)	0.432 (0.331)
Observations	2,759	2,750	2,263	518	517	391
R-squared	0.017	0.067	0.132	0.019	0.058	0.101

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

# Estimation Results: Preferences & Big 5 [More](#)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	rural-to-urban				town-to-city			
risk taking	0.00809** (0.00325)	0.00793** (0.00330)	0.0109*** (0.00370)	0.00642 (0.00394)	0.0236*** (0.00673)	0.0213*** (0.00682)	0.0147* (0.00789)	0.0175* (0.00934)
trust		-0.00786** (0.00390)	-0.00467 (0.00445)	-0.00260 (0.00478)		0.00670 (0.00800)	0.00515 (0.00899)	0.0120 (0.0107)
open. to exper.			0.0517** (0.0213)	0.0746*** (0.0226)			0.00146 (0.0442)	0.0663 (0.0512)
conscientious.			0.0857*** (0.0199)	0.0885*** (0.0210)			-0.0172 (0.0425)	-0.0474 (0.0495)
extraversion			0.0488** (0.0202)	0.0487** (0.0215)			-0.0484 (0.0426)	-0.0829* (0.0480)
agreeableness			0.0334* (0.0201)	0.0185 (0.0213)			-0.0518 (0.0440)	-0.0182 (0.0503)
neurotism			-0.00220 (0.0197)	0.00618 (0.0211)			-0.0109 (0.0414)	-0.00781 (0.0484)
Exogenous controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Endogenous controls	No	No	No	Yes	No	No	No	Yes
Constant	0.402*** (0.0888)	0.417*** (0.0911)	0.175 (0.109)	-0.0265 (0.150)	0.430*** (0.162)	0.426** (0.170)	0.567*** (0.204)	0.273 (0.333)
Observations	3,297	3,246	2,643	2,183	634	626	503	381
R-squared	0.054	0.054	0.070	0.134	0.045	0.043	0.062	0.103

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

## To sum up

- Risk preferences and personality traits are important determinants of internal migration
- Risk preferences play a role for both rural-to-city and town-to-city mobility
- Three of the big five (Openness to experience, Conscientiousness, Extroversion) are correlated with rural-to-urban migration
- Social preferences (like trust) are not predictors of the migration decision

## Next steps

- Link preferences and personality traits to labor market outcomes for rural movers and stayers
- Additional controls for regional macroeconomic performance (unemployment & GDP growth rate)
- More analysis on complementarity/substitutability of traits and preferences
- Factor Analysis for personality traits
- Reverse causality - having only a cross section on personality traits we will perform a validity test using an external data set (GSOEP)
- Reverse causality - having a panel on risk attitudes we can perform a validity test using the 2007 and 2012 waves of the ULMS
- Nonlinearity - we will also use nonlinear specifications of the migration and labor market outcome regressions

**Thanks for your attention!**

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## Appendix Tables

## Estimation Results: Personality traits

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VARIABLES	(1) rural-to-city	(2) rural-to-city	(3) rural-to-city	(4) rural-to-town	(5) rural-to-town	(6) rural-to-town
talkative	-0.0121 (0.0223)	0.00948 (0.0223)	0.000224 (0.0237)	0.0342 (0.0214)	0.0424* (0.0217)	0.0310 (0.0237)
careful1	0.0135 (0.0376)	0.0211 (0.0368)	0.00121 (0.0394)	-0.00121 (0.0364)	0.00172 (0.0363)	0.0156 (0.0396)
creative	0.0275 (0.0233)	0.0267 (0.0235)	0.0570** (0.0253)	0.0511** (0.0215)	0.0541** (0.0216)	0.0719*** (0.0216)
reserved	0.0275 (0.0217)	0.0329 (0.0212)	0.0253 (0.0243)	0.0120 (0.0209)	0.0201 (0.0208)	0.0166 (0.0226)
relaxed1	0.00979 (0.0214)	0.0144 (0.0210)	0.0311 (0.0222)	0.0208 (0.0208)	0.0198 (0.0208)	0.0268 (0.0227)
ending tasks	0.157*** (0.0396)	0.120*** (0.0389)	0.0810** (0.0427)	0.110*** (0.0397)	0.108*** (0.0396)	0.118*** (0.0442)
exploited	-0.0981*** (0.0259)	-0.0765*** (0.0254)	-0.0879*** (0.0270)	0.0118 (0.0262)	0.0198 (0.0260)	0.00738 (0.0284)
hard working	0.0114 (0.0231)	0.0179 (0.0226)	0.00442 (0.0240)	-0.00895 (0.0217)	-0.00894 (0.0216)	-0.00460 (0.0237)
forgiver	0.0654*** (0.0251)	0.0776*** (0.0246)	0.0406 (0.0268)	0.0664*** (0.0239)	0.0719*** (0.0238)	0.0636** (0.0266)
worried	0.0355 (0.0248)	0.0222 (0.0236)	0.0341 (0.0248)	-0.0242 (0.0234)	-0.0251 (0.0235)	-0.0158 (0.0234)
interested in new	-0.0694** (0.0277)	-0.0642** (0.0271)	-0.0290 (0.0288)	-0.0770*** (0.0263)	-0.0810*** (0.0264)	-0.0802*** (0.0286)
relaxed2	-0.0898*** (0.0231)	-0.0765*** (0.0227)	-0.0677*** (0.0240)	-0.0500*** (0.0227)	-0.0579*** (0.0227)	-0.0561*** (0.0245)
patient	0.0101 (0.0233)	-0.00783 (0.0218)	0.0112 (0.0232)	0.0785*** (0.0215)	0.0783*** (0.0214)	0.0833*** (0.0233)
enjoy art/music	-0.0568 (0.0358)	-0.0605* (0.0349)	-0.0535 (0.0368)	-0.0384 (0.0384)	-0.0497 (0.0334)	-0.0420 (0.0358)
locus of control	0.0119 (0.0303)	0.0231 (0.0313)	0.0112 (0.0325)	-0.0246 (0.0303)	-0.0234 (0.0298)	-0.0357 (0.0333)
polite	0.0466 (0.0394)	0.0332 (0.0386)	0.0244 (0.0418)	-0.0260 (0.0400)	-0.0171 (0.0398)	-0.0222 (0.0438)
efficient	-0.0724 (0.0292)	0.0008 (0.0289)	0.000268 (0.0308)	0.000268 (0.0279)	0.0177 (0.0281)	0.0121 (0.0306)
nervous	-0.00932 (0.0242)	-0.00932 (0.0238)	0.0212 (0.0252)	0.0189** (0.0240)	0.0189** (0.0240)	0.0121 (0.0260)
generous	0.0111 (0.0208)	0.0187 (0.0225)	0.0220 (0.0241)	0.0224 (0.0219)	0.0283 (0.0219)	0.00798 (0.0233)
social2	0.0883*** (0.0253)	0.0698*** (0.0242)	0.0522** (0.0237)	0.0766*** (0.0313)	0.0692*** (0.0310)	0.0680** (0.0340)
careful2	-0.0046 (0.0325)	-0.0104 (0.0317)	-0.00676 (0.0342)	0.0640** (0.0313)	0.0749** (0.0310)	0.0626* (0.0340)
rudely treated	0.0801*** (0.0308)	0.0814*** (0.0301)	0.0831*** (0.0322)	0.0881*** (0.0301)	0.0881*** (0.0300)	0.0857*** (0.0331)
asking help	-0.0233 (0.0232)	-0.0198 (0.0228)	-0.0198 (0.0242)	-0.0198 (0.0224)	-0.0198 (0.0224)	-0.0198 (0.0234)
caring	0.0195 (0.0320)	0.0165 (0.0300)	0.0407 (0.0312)	-0.0536* (0.0322)	-0.0556* (0.0320)	-0.0472 (0.0357)
age	0.00900** (0.00616)	0.00900** (0.00616)	0.00910 (0.00636)	-0.000874 (0.00636)	-0.000874 (0.00636)	-0.00157 (0.00636)
age square	-0.00767 (0.00496)	-0.00455 (0.00496)	-0.00455 (0.00663)	0.00411 (0.00496)	0.00411 (0.00496)	0.00511 (0.00645)
female	0.00655 (0.0223)	0.00655 (0.0223)	0.00655 (0.0250)	0.00655 (0.0215)	0.00655 (0.0215)	0.00655 (0.0246)
language: ukrainian	-0.231*** (0.0217)	-0.231*** (0.0217)	-0.180*** (0.0231)	-0.09982*** (0.0219)	-0.09982*** (0.0219)	-0.09982*** (0.0238)
ethnicity: ukrainian	0.0629** (0.0288)	0.0629** (0.0288)	0.0378 (0.0403)	0.0278 (0.0288)	0.0278 (0.0288)	0.0346 (0.0316)
education			0.0636*** (0.0139)			0.0299** (0.0137)
married			-0.00776 (0.0276)			0.0261 (0.0280)
no. kids			-0.0793*** (0.0137)			-0.0561*** (0.0136)
health problem			0.0385** (0.0246)			0.0306 (0.0235)
employed			0.109** (0.0444)			0.138** (0.0451)
HH income			2.31e-05*** (3.50e-06)			1.02e-05** (4.18e-06)
Constant	0.325*** (0.0382)	0.128 (0.114)	-0.171 (0.158)	0.0831** (0.0366)	0.0635 (0.110)	-0.0776 (0.152)
Observations	2,384	2,177	1,792	1,825	1,819	1,519
R-squared	0.049	0.049	0.172	0.056	0.077	0.100

Standard errors in parentheses: \*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

# Estimation Results: Big 5 [back](#)

VARIABLES	(1)	(2)	(3)	(1)	(2)	(3)
	rural-to-city	rural-to-city	rural-to-city	rural-to-town	rural-to-town	rural-to-town
openness to experience	0.0263 (0.0219)	0.0293 (0.0215)	0.0561** (0.0225)	0.0457** (0.0209)	0.0514** (0.0211)	0.0610*** (0.0228)
conscientiousness	0.0816*** (0.0208)	0.0706*** (0.0203)	0.0686*** (0.0212)	0.0805*** (0.0197)	0.0742*** (0.0196)	0.0793*** (0.0211)
extraversion	0.0240 (0.0209)	0.0291 (0.0205)	0.0300 (0.0216)	0.0474** (0.0198)	0.0485** (0.0200)	0.0440** (0.0216)
agreeableness	0.00365 (0.0210)	0.0138 (0.0204)	0.00662 (0.0214)	0.0459** (0.0199)	0.0516*** (0.0199)	0.0330 (0.0214)
neurotism	-0.0122 (0.0206)	-0.00849 (0.0202)	0.00355 (0.0213)	0.0220 (0.0194)	0.0215 (0.0196)	0.0216 (0.0213)
age		0.00882** (0.00445)	0.00926 (0.00616)		0.000306 (0.00430)	-0.00206 (0.00601)
age square		-0.00846* (0.00479)	-0.00514 (0.00643)		0.00215 (0.00461)	0.00568 (0.00628)
female		-0.00275 (0.0209)	0.0277 (0.0234)		-0.0314 (0.0201)	-0.0275 (0.0231)
language: ukrainian		-0.259*** (0.0208)	-0.209*** (0.0221)		-0.109*** (0.0213)	-0.0898*** (0.0231)
ethnicity: ukrainian		0.0488* (0.0276)	0.0233 (0.0289)		0.0217 (0.0283)	0.0234 (0.0306)
education			0.0630*** (0.0134)			0.0259* (0.0133)
married			-0.0128 (0.0265)			0.0201 (0.0273)
no. kids			-0.0867*** (0.0131)			-0.0573*** (0.0131)
health problem			0.0420* (0.0228)			0.0416* (0.0229)
employed			0.112*** (0.0236)			0.0243 (0.0246)
HH income			2.13e-05*** (3.40e-06)			1.09e-05*** (4.08e-06)
Constant	0.293*** (0.0234)	0.187* (0.106)	-0.106 (0.150)	0.100*** (0.0229)	0.0963 (0.102)	0.0790 (0.143)
Observations	2,318	2,310	1,901	1,928	1,922	1,603
R-squared	0.010	0.078	0.157	0.024	0.045	0.068

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

# Estimation Results: Preferences & Big 5 [back](#)

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	rural-to-city				rural-to-town			
risk taking	0.00884*** (0.00342)	0.00892** (0.00347)	0.0122*** (0.00385)	0.00769* (0.00404)	0.00386 (0.00339)	0.00334 (0.00343)	0.00478 (0.00375)	0.00220 (0.00402)
trust		-0.0101** (0.00409)	-0.00663 (0.00466)	-0.00489 (0.00492)		-0.00231 (0.00418)	-0.00106 (0.00458)	0.00162 (0.00499)
open. to exper.			0.0369* (0.0219)	0.0616*** (0.0230)			0.0550** (0.0215)	0.0643*** (0.0232)
conscientious.			0.0733*** (0.0208)	0.0710*** (0.0216)			0.0714*** (0.0201)	0.0788*** (0.0215)
extraversion			0.0379* (0.0211)	0.0356 (0.0223)			0.0505** (0.0206)	0.0473** (0.0222)
agreeableness			0.0147 (0.0208)	0.00560 (0.0218)			0.0533*** (0.0203)	0.0330 (0.0219)
neurotism			-0.0142 (0.0208)	-0.00248 (0.0219)			0.0201 (0.0201)	0.0190 (0.0217)
Exogenous controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Endogenous controls	No	No	No	Yes	No	No	No	Yes
Constant	0.315*** (0.0935)	0.343*** (0.0954)	0.115 (0.113)	-0.146 (0.157)	0.222** (0.0921)	0.213** (0.0949)	0.0320 (0.109)	0.0211 (0.150)
Observations	2,781	2,738	2,224	1,838	2,211	2,177	1,836	1,539
R-squared	0.072	0.073	0.083	0.158	0.019	0.019	0.046	0.069

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