International vs. national classifications of education: Advantages and limitations in explaining values and attitudes

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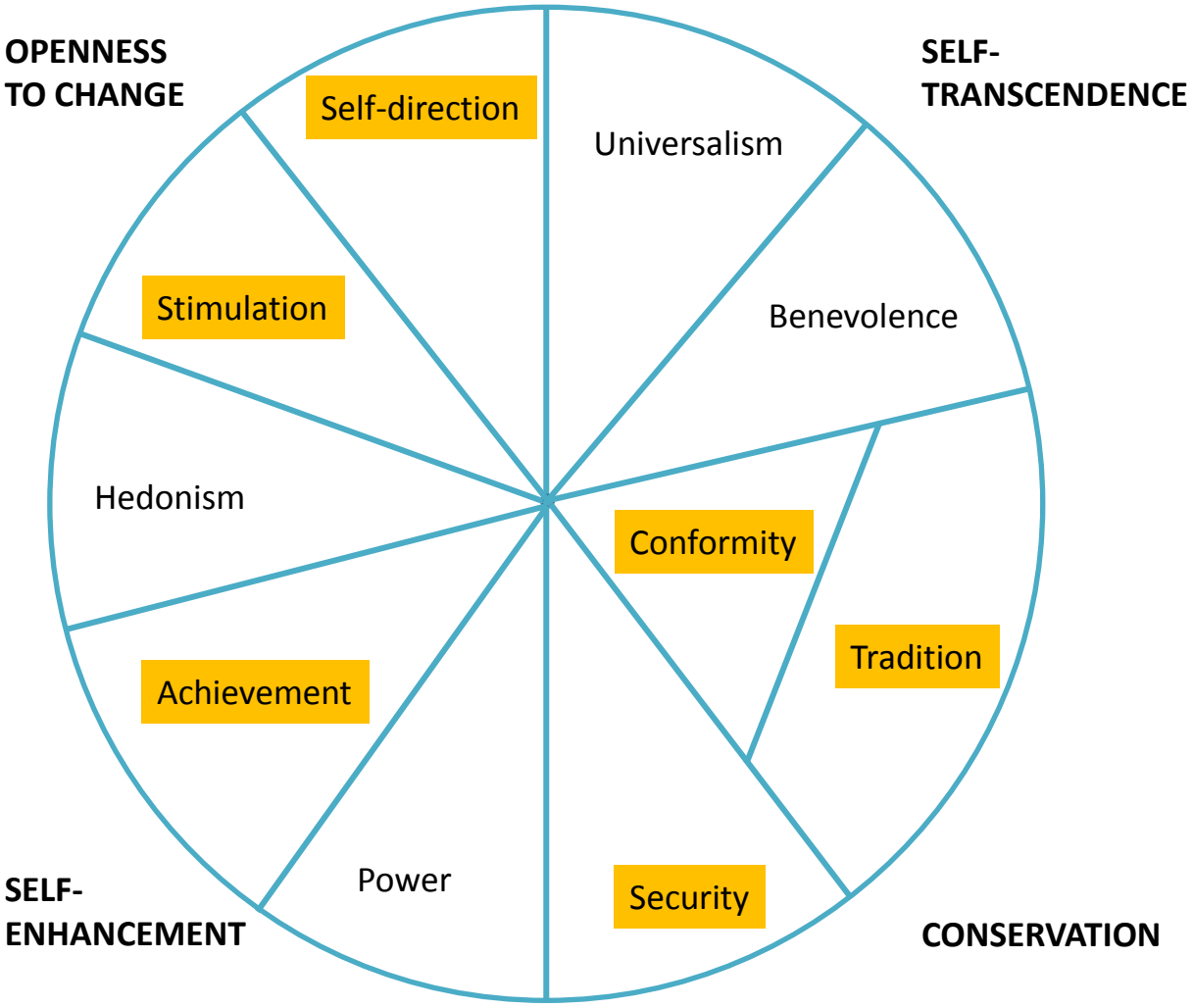
Problem

- The cross-country differences in survey results have two sources:
  - the actual differences between countries;
  - the differences in quality of measurement.
- The measurement instruments which are not properly designed cannot identify important details of what is being measured.
  - As Willem Saris demonstrated in his Keynote Speech, it decreases the correlations between variables.
- When you find no effect of education on values and attitudes in your country, please check whether the measurement of education has been made properly.
  - My presentation is about how to overcome some limitations connected with measuring education in surveys.

ESS 2010: Ten selected questions on attitudes

variable	question wording / answers
ppltrst	A8. Would you say that most people can be trusted, or that you can't be too careful in dealing with people? Scale: 00=You can't be too careful . . . . . 10= Most people can be trusted
sclact	C4. Compared to other people of your age, how often would you say you take part in social activities? Scale: 1=Much less than most, 2=Less than most, 3=About the same, 4=More than most, 5=Much more than most.
gincdif	B30. The government should take measures to reduce differences in income levels. Scale: 1=Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Agree strongly.
imdfetn	B36. How about people of a different race or ethnic group from most [country] people? Scale: 1=Allow none, 2=Allow a few, 3=Allow some, 4=Allow many to come and live here.
freehms	B31. Gay men and lesbians should be free to live their own life as they wish. Scale: 1=Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Agree strongly.
mnrgtjb	G5. When jobs are scarce, men should have more right to a job than women. Scale: 1=Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Agree strongly.
wmcpwrk	G4. A woman should be prepared to cut down on her paid work for the sake of her family. Scale: 1=Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Agree strongly.
rlgdgr	C21. Regardless of whether you belong to a particular religion, how religious would you say you are? Scale: 00=Not at all religious . . . . . 10=Very religious
stflife	B24. All things considered, how satisfied are you with your life as a whole nowadays? Scale: 00=Extremely dissatisfied . . . . . 10=Extremely satisfied
happy	C1. Taking all things together, how happy would you say you are? Scale: 00=Extremely unhappy . . . . . 10=Extremely happy

ESS 2010: Six values from Schwartz Human Values Scale



From: Shalom H. Schwartz. 2007. Value orientations: measurement, antecedents and consequences across nations. Pp. 169-203 [in:] Roger Jowell, Caroline Roberts, Rory Fitzgerald and Gillian Eva, *Measuring Attitudes Cross-Nationally. Lessons from the European Social Survey*. Sage Publications.

Three measures of education in the ESS 2010

The EISCED classification common for all countries

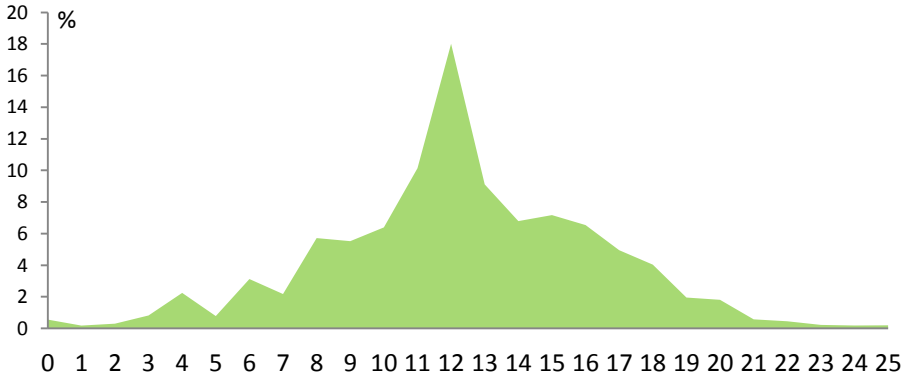
I	Less than lower secondary	12
II	Lower secondary	18
IIIb	Lower tier upper secondary	15
IIIa	Upper tier upper secondary	23
IV	Advanced vocational, sub-degree	12
V1	Lower tertiary education, BA level	9
V2	Higher tertiary education, MA+ level	11

The national classifications specific for countries

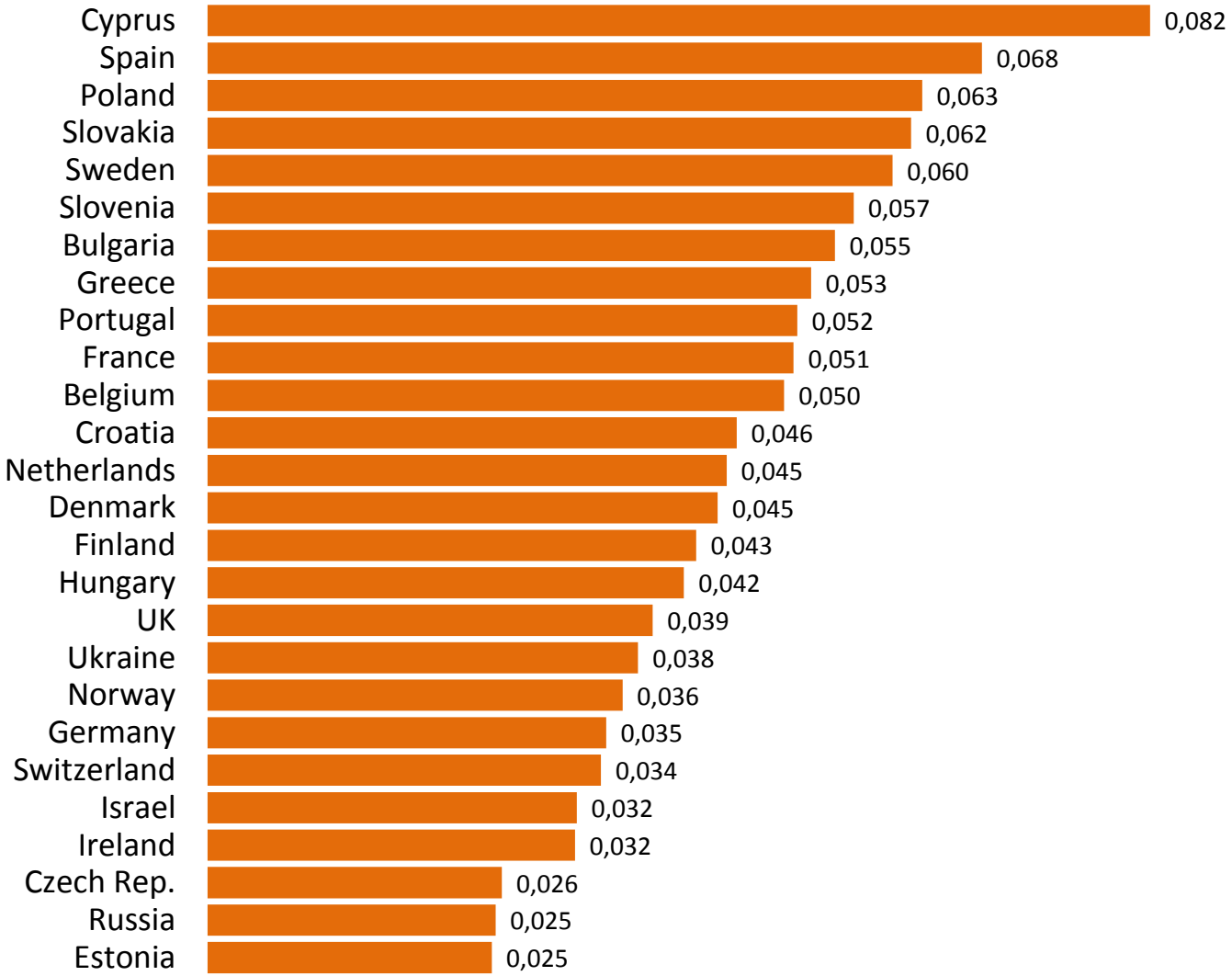
United Kingdom 3 variables
Ukraine 14
Switzerland 23
Sweden 20
Spain 25
Slovenia 12
Slovakia 19
Russia 11
Portugal 17
Poland 14
Norway 14
Netherlands 17
Israel 18
Ireland 18
Hungary 14
Greece 15
Germany 3 variables
France 26
Finland 14
Estonia 15
Denmark 12
Czech Republic 12
Cyprus 12
Croatia 14
Bulgaria 12
Belgium 18

The number of years of education

F16. About how many years of education have you completed, whether full-time or part-time? Please report these in full-time equivalents and include compulsory years of schooling.



Differences in explaining attitudes and values by EISCED (average Eta^2 for 16 attitudes and values)



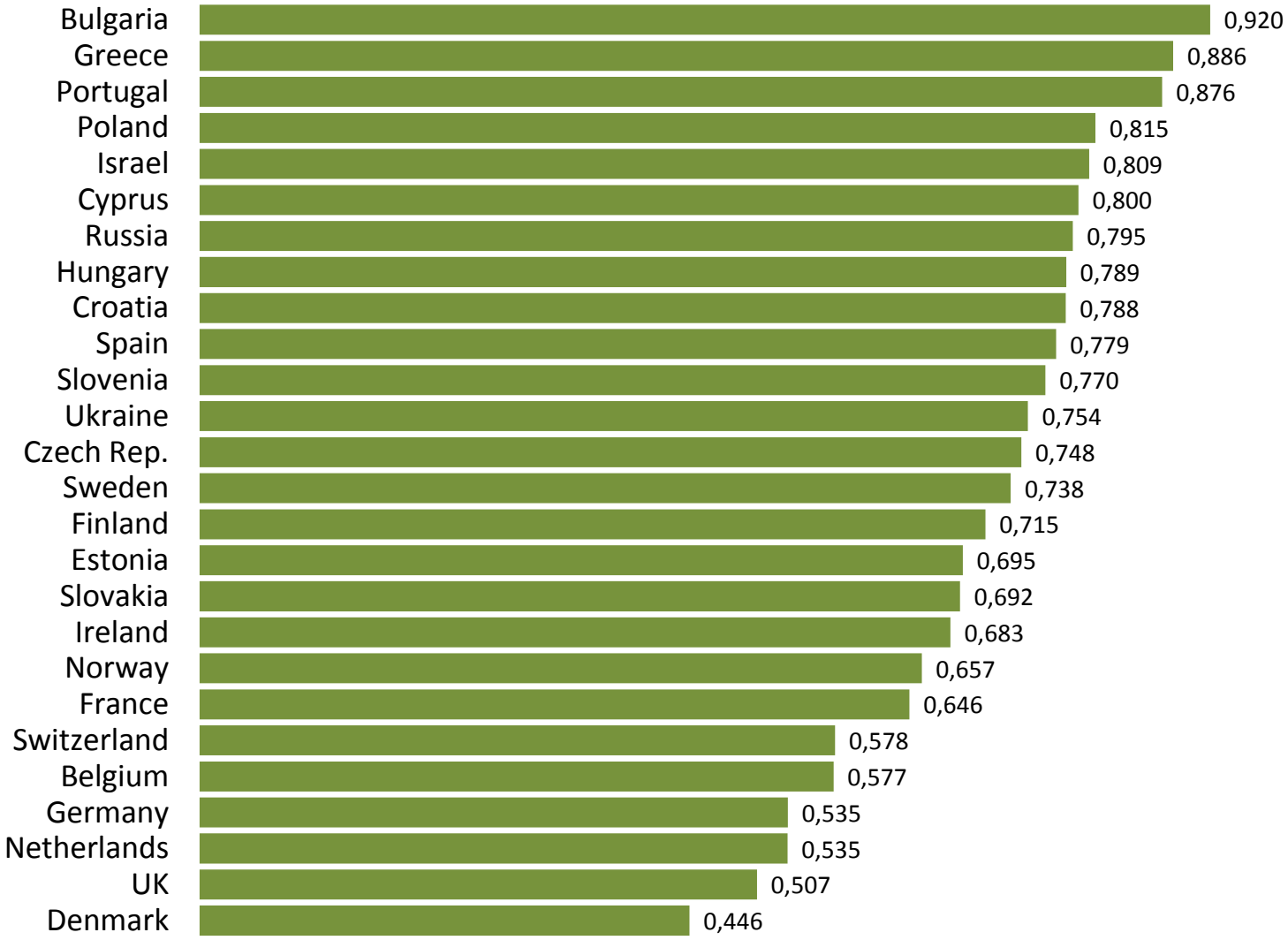
Three methodological pitfalls when measuring education

1. Categories of classification are too internally diverse;
2. Distinct types of education are classified to the same category;
3. Too narrow levels of education are defined, which are not represented in a sample.

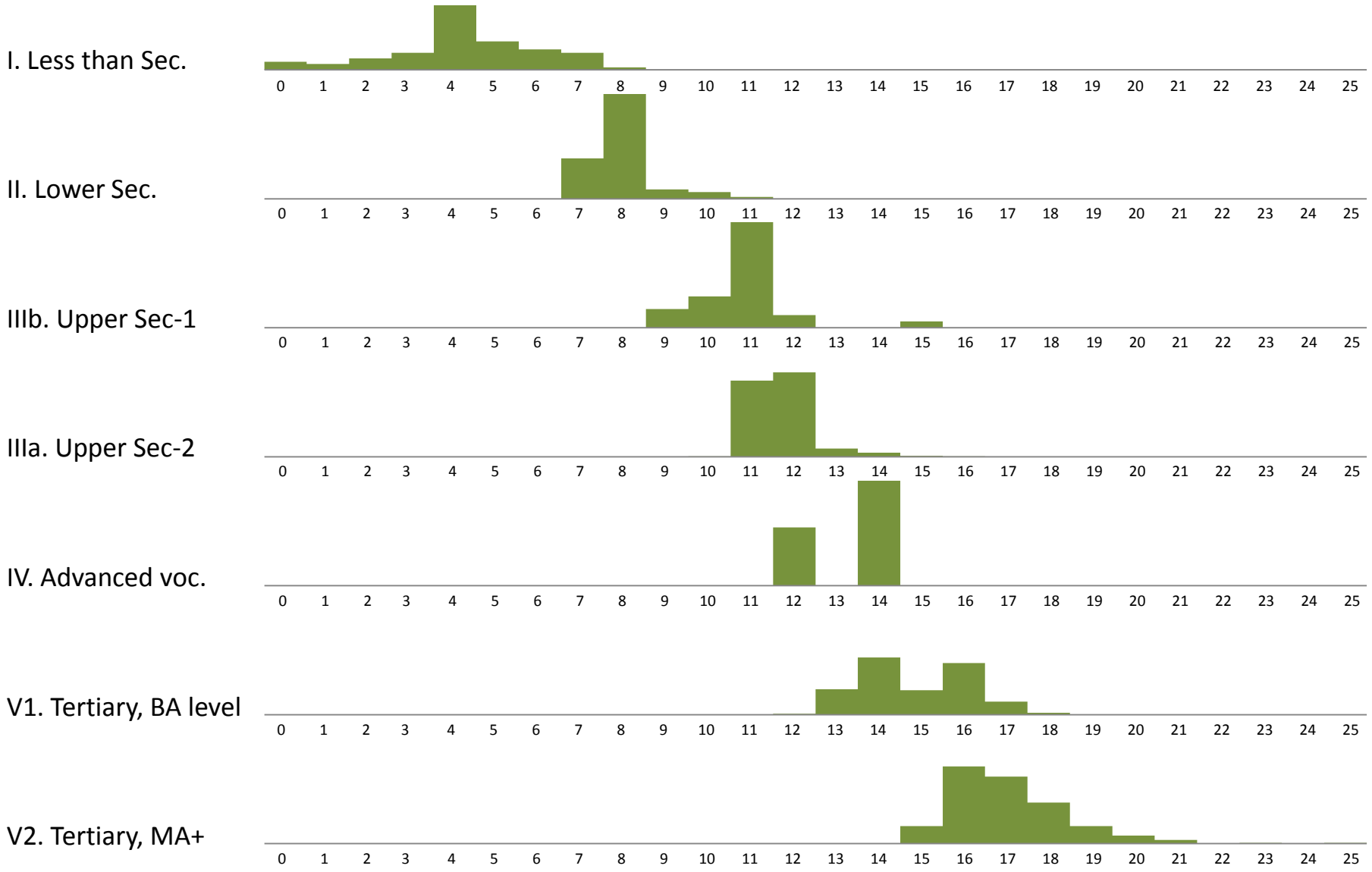
1

INTERNAL HOMOGENEITY OF EISCED CATEGORIES

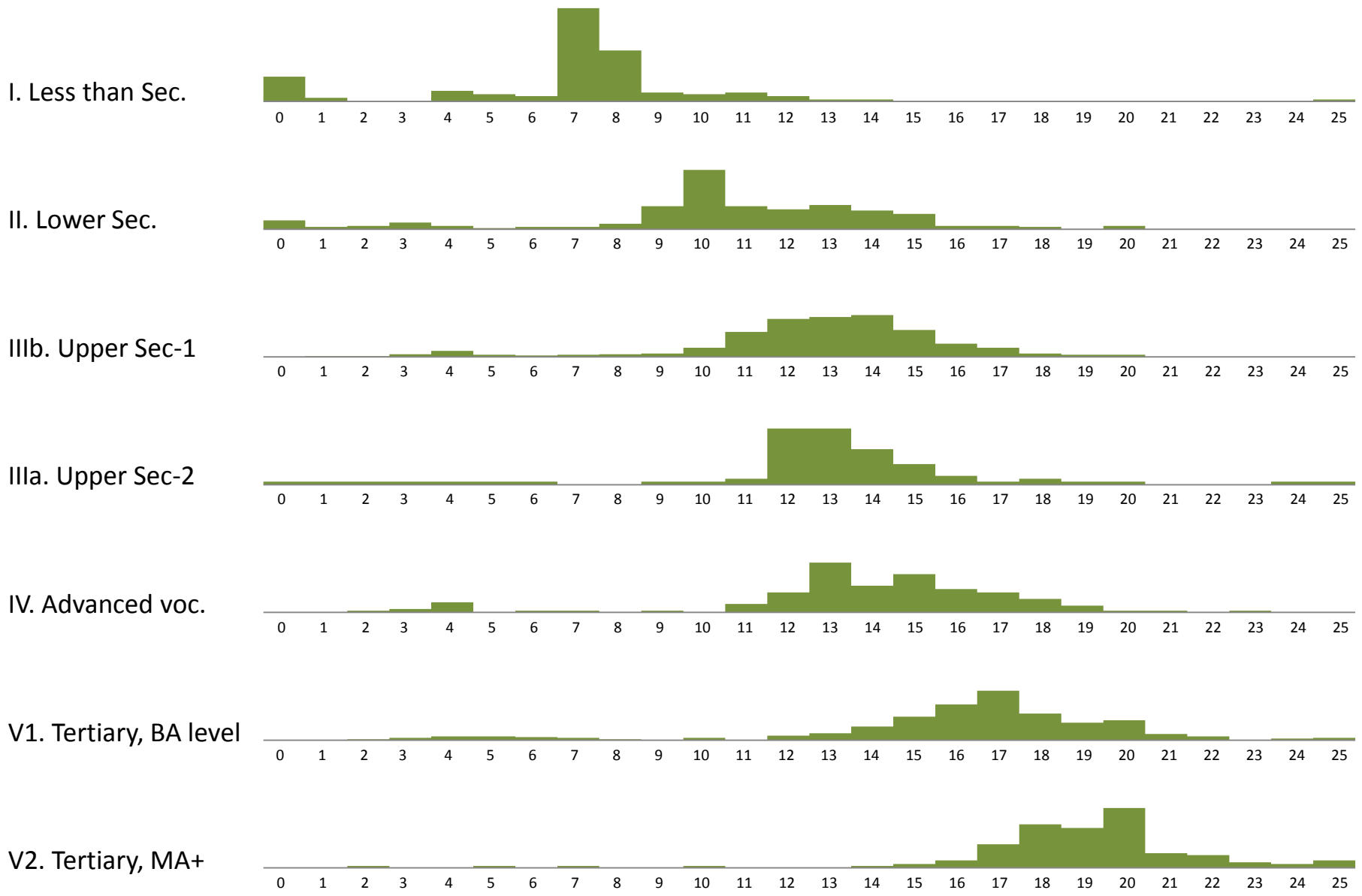
Internal homogeneity of EISCED categories (Eta^2 for a number of years of schooling)



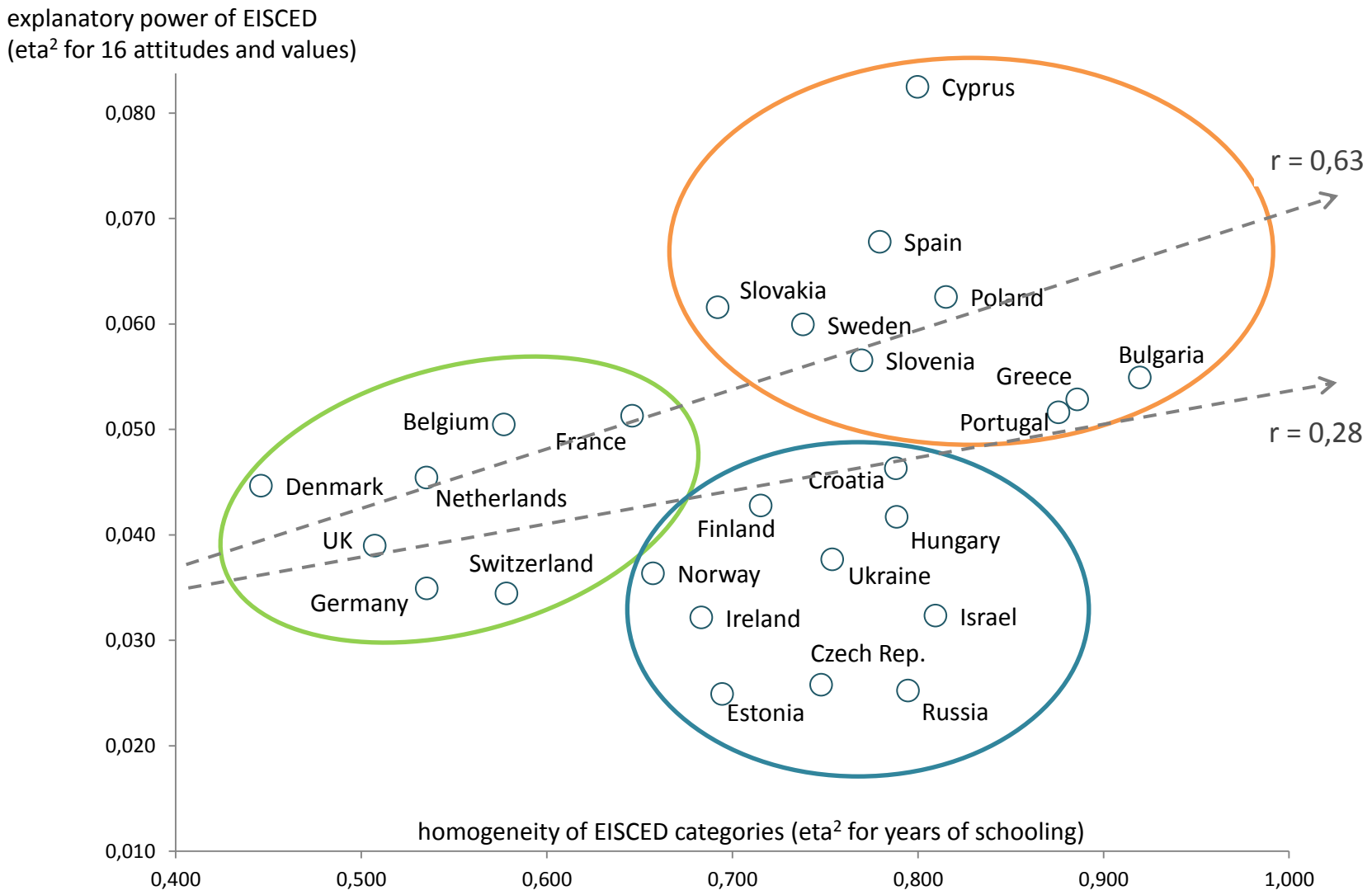
BULGARIA: Number of years of education in EISCED categories



DENMARK: Number of years of education in EISCED categories



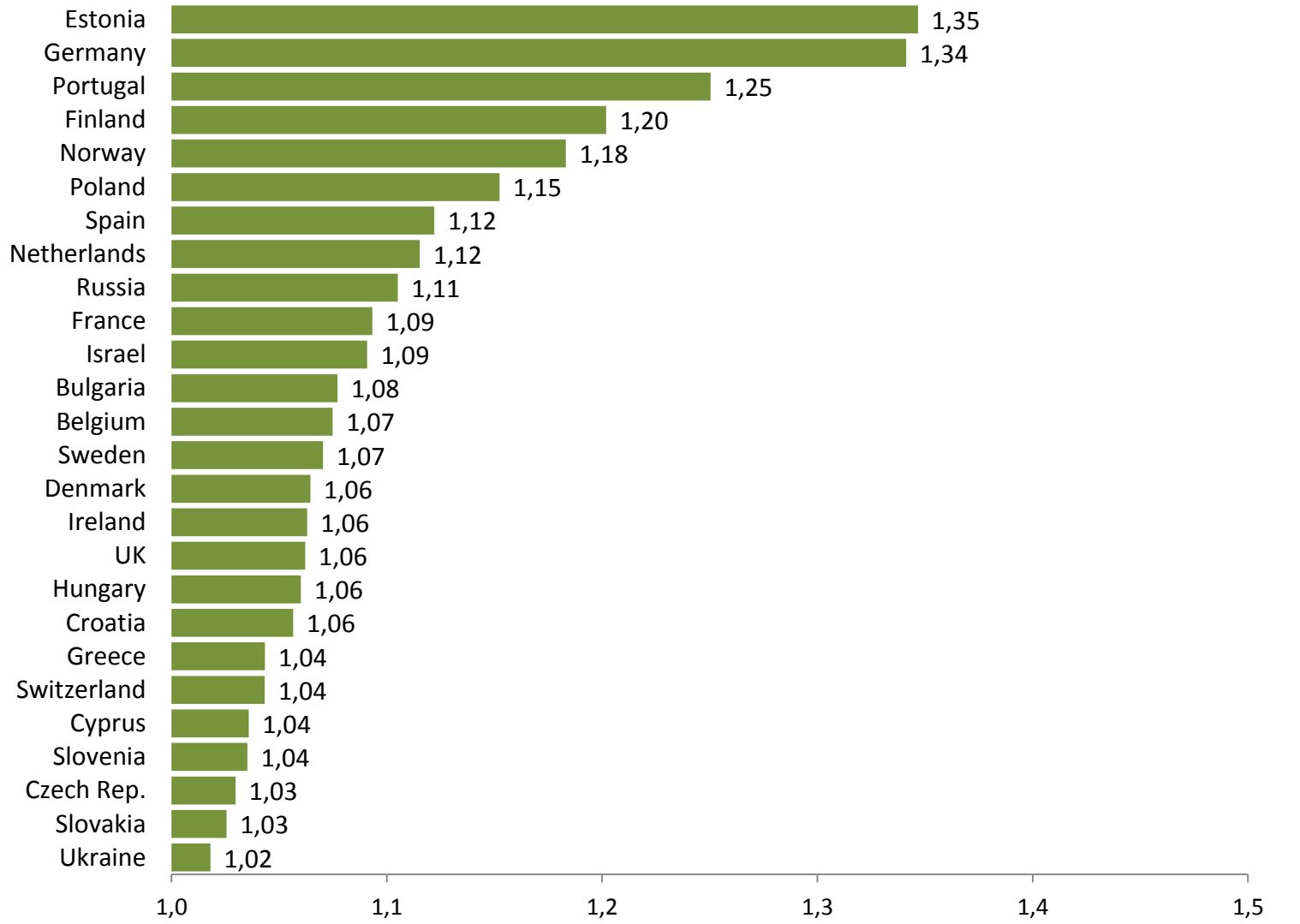
Homogeneity of categories and explanatory power of EISCED



Do the school years matter? GERMANY

	R^2 (eisced only)	R^2 (eisced + years of education)	Index
ATTITUDES			
B30. Gov't should reduce inequalities	0.031	0.035	1.12
B36. Allow immigrants of a different race	0.093	0.106	1.13
B31. Tolerance for homosexuals	0.030	0.047	1.56
G5. Men more right to jobs than women	0.073	0.099	1.36
G4. Women ready to cut down on paid work	0.013	0.021	1.67
C21. How religious you are?	0.003	0.006	2.13
VALUES			
self-direction	0.061	0.072	1.19
achievement	0.010	0.018	1.82
stimulation	0.010	0.029	2.82
tradition	0.012	0.031	2.59
conformity	0.036	0.058	1.61
security	0.059	0.085	1.44

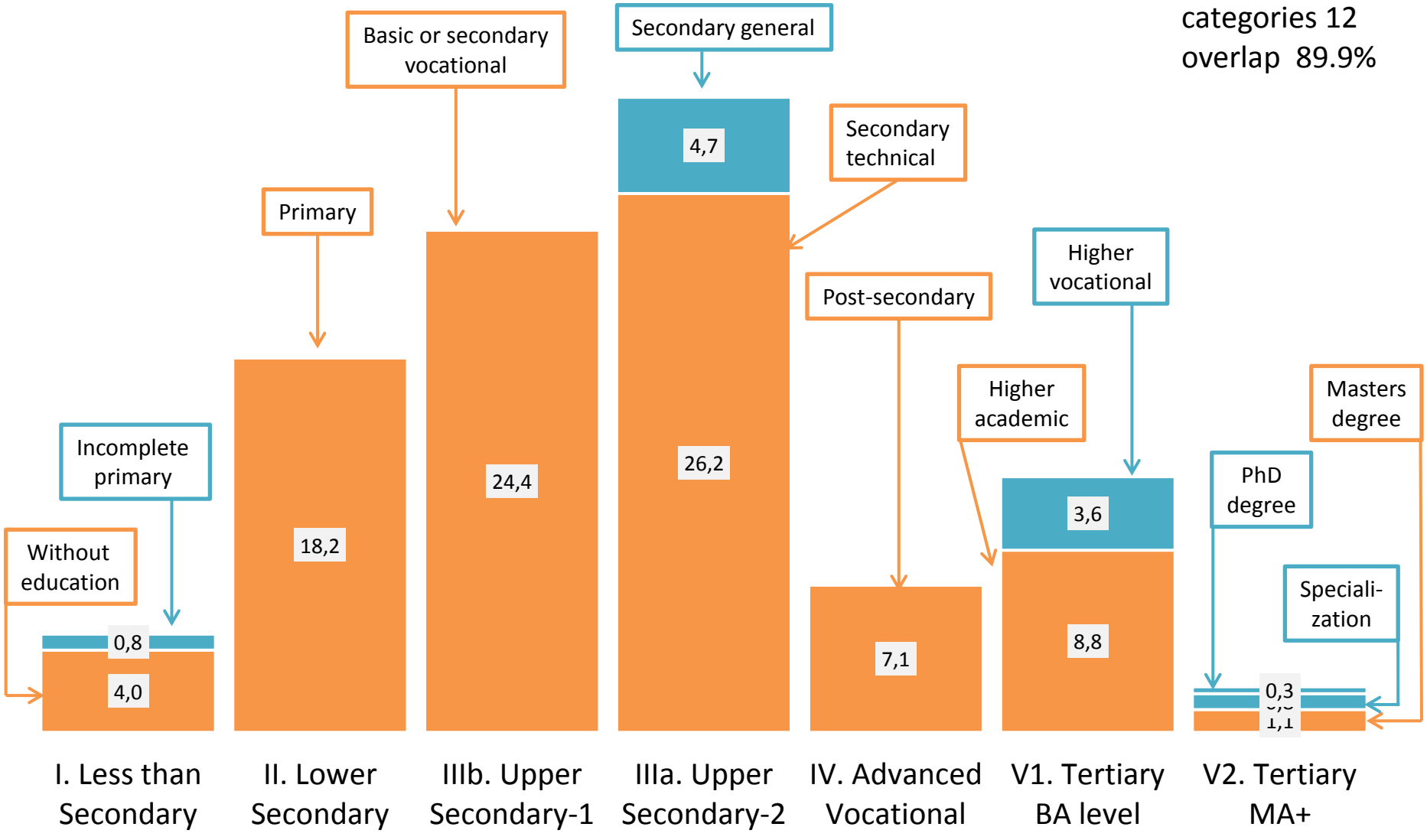
The R^2 increment when the EISCED is supplemented by years of schooling



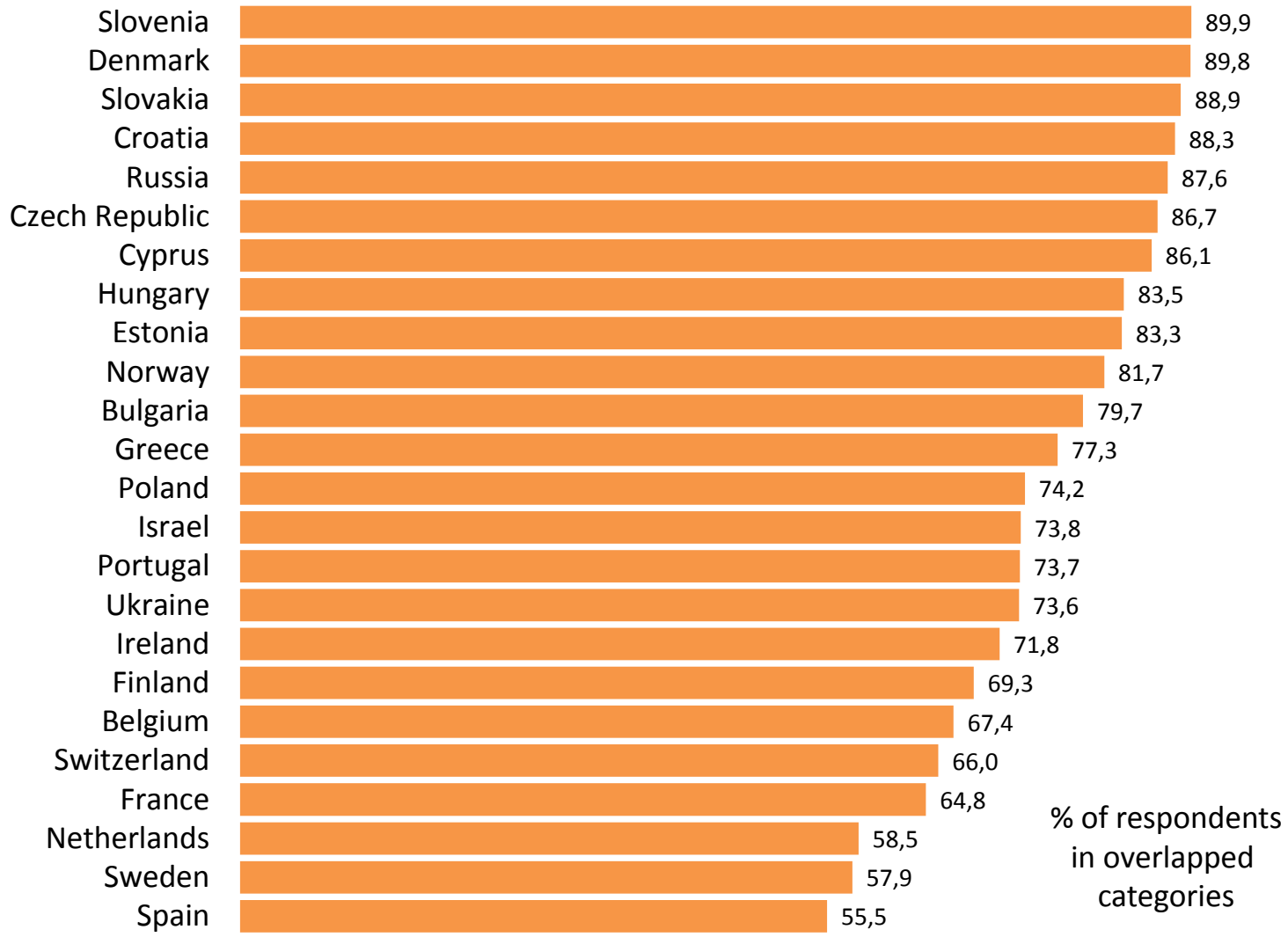
2

CAN WE BENEFIT FROM NATIONAL CLASSIFICATIONS?

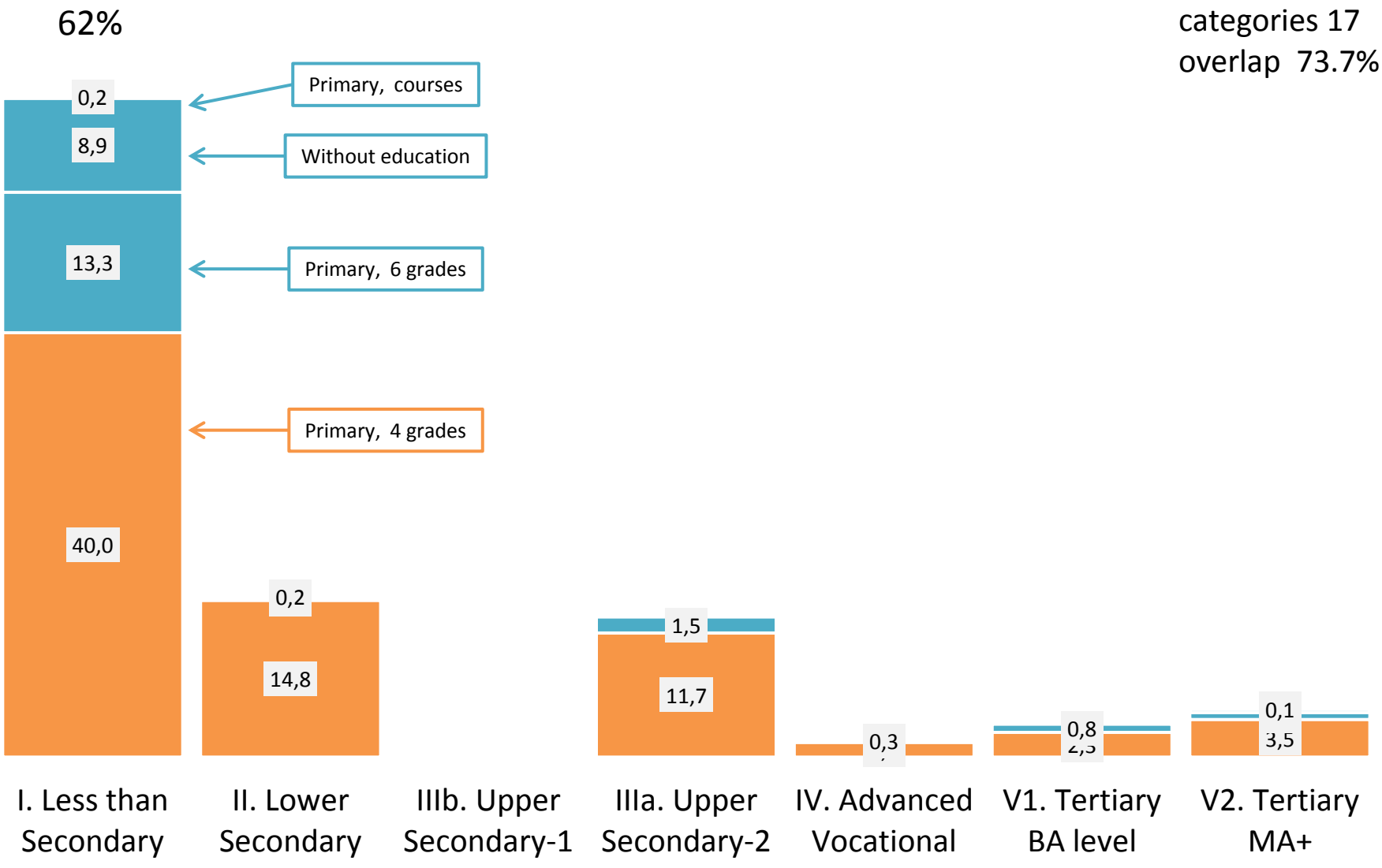
SLOVENIA: The overlap between EISCED and the national classification



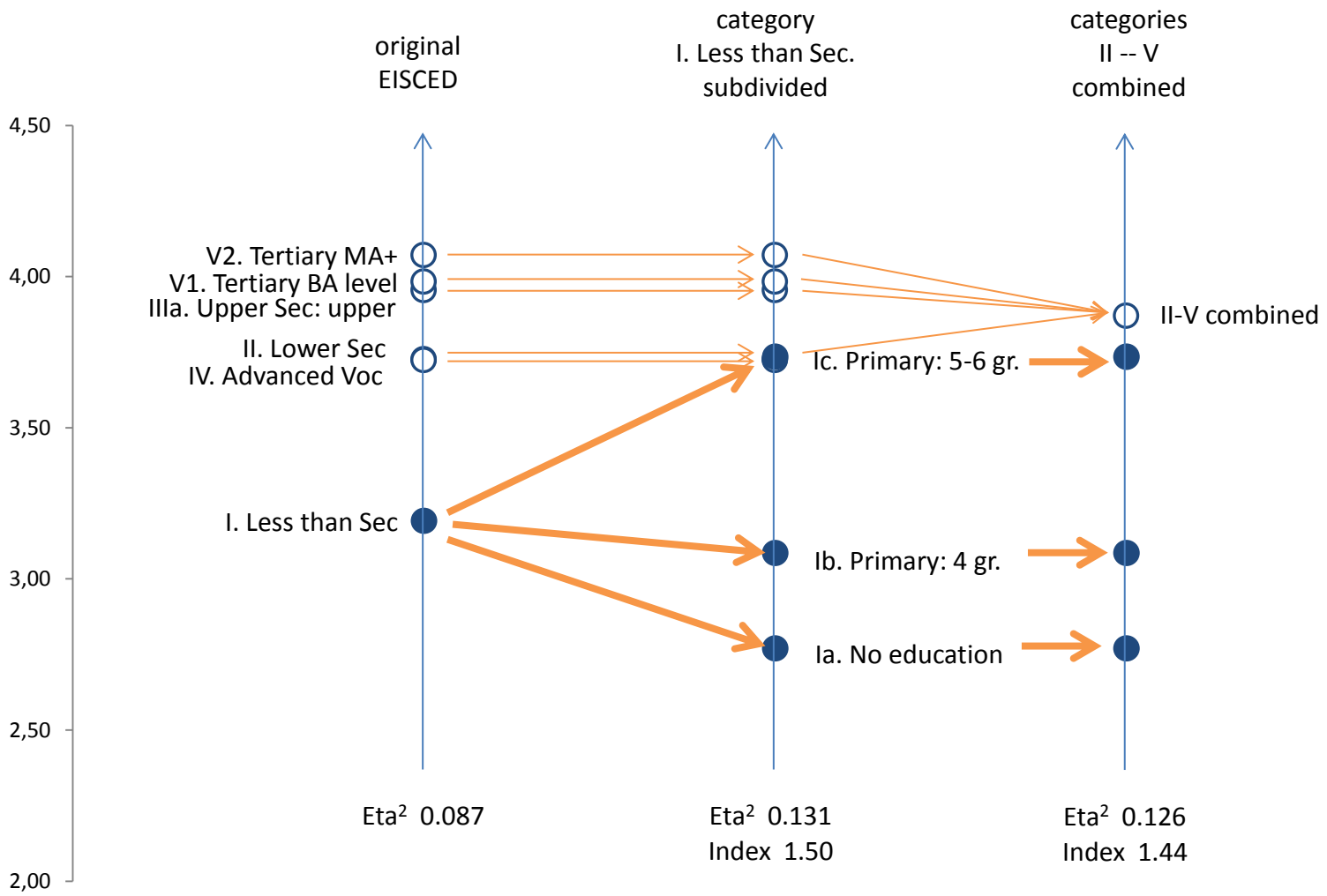
The overlap between EISCED and national classifications in ESS 2010



PORTUGAL: The overlap between EISCED and the national classification



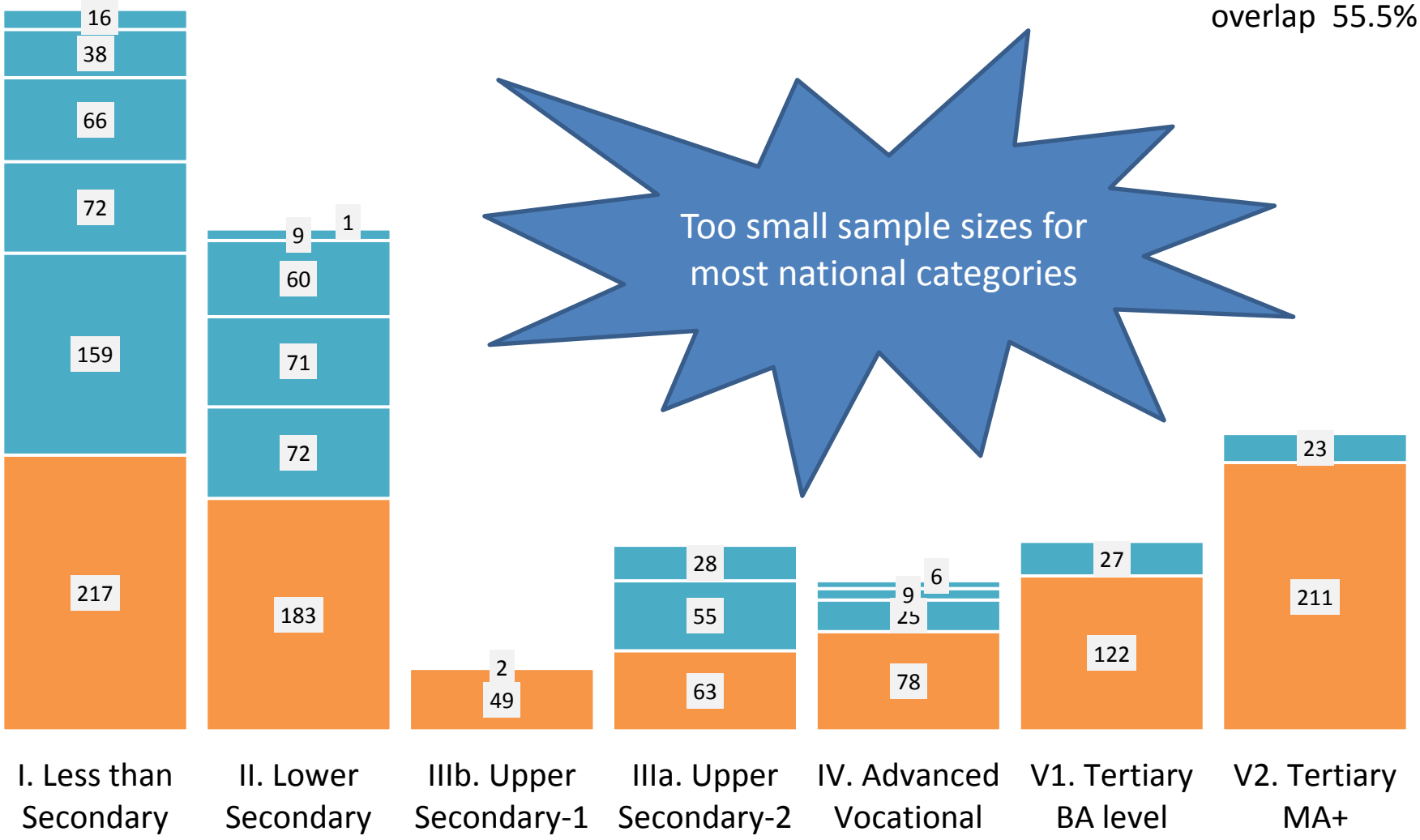
PORTUGAL: tolerance for homosexuals



B31. Gay men and lesbians should be free to live their own life as they wish (variable *freehms*).
Scale: 1=Disagree strongly, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Agree strongly.

SPAIN: The overlap between EISCED and the national classification

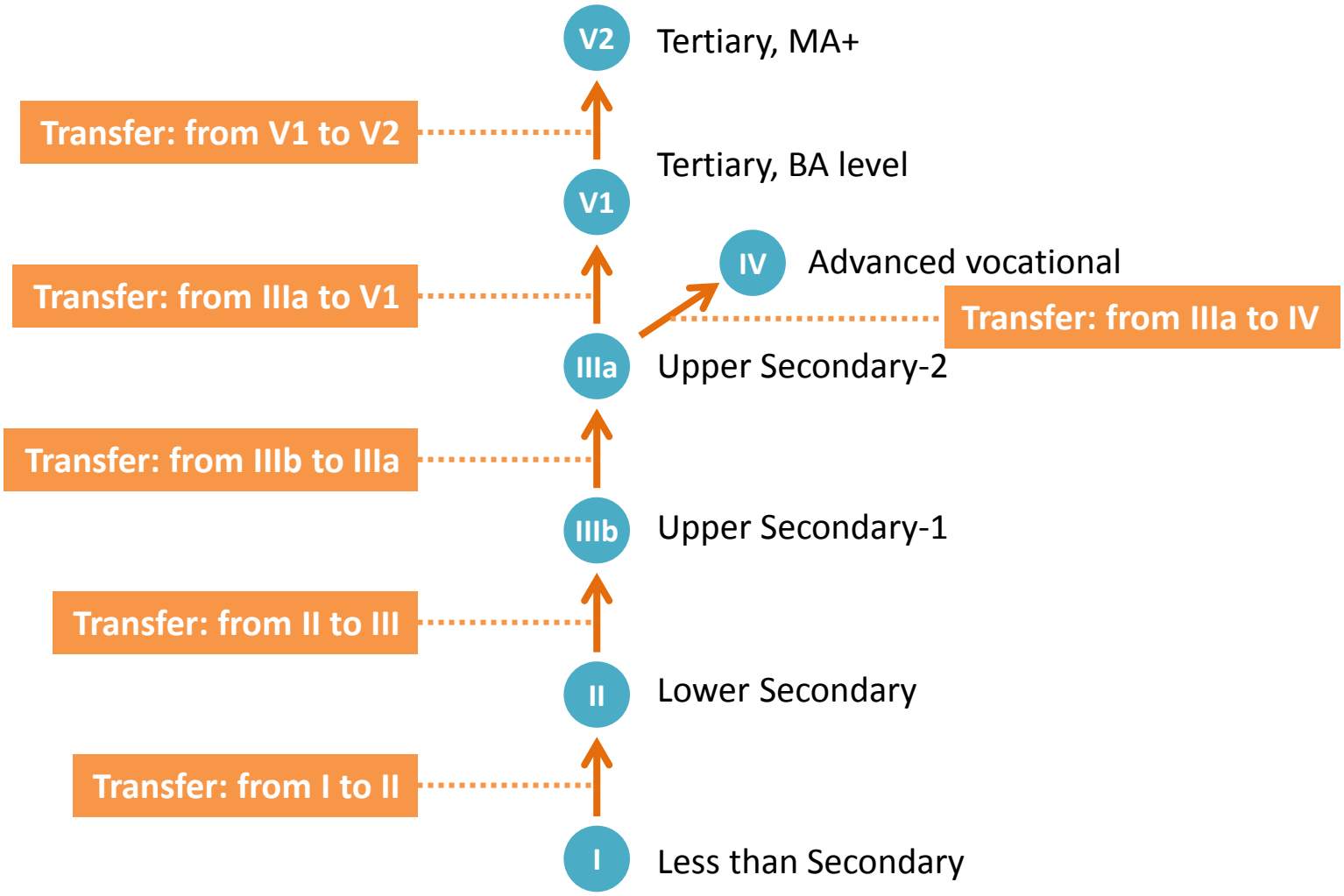
categories 26
overlap 55.5%



3

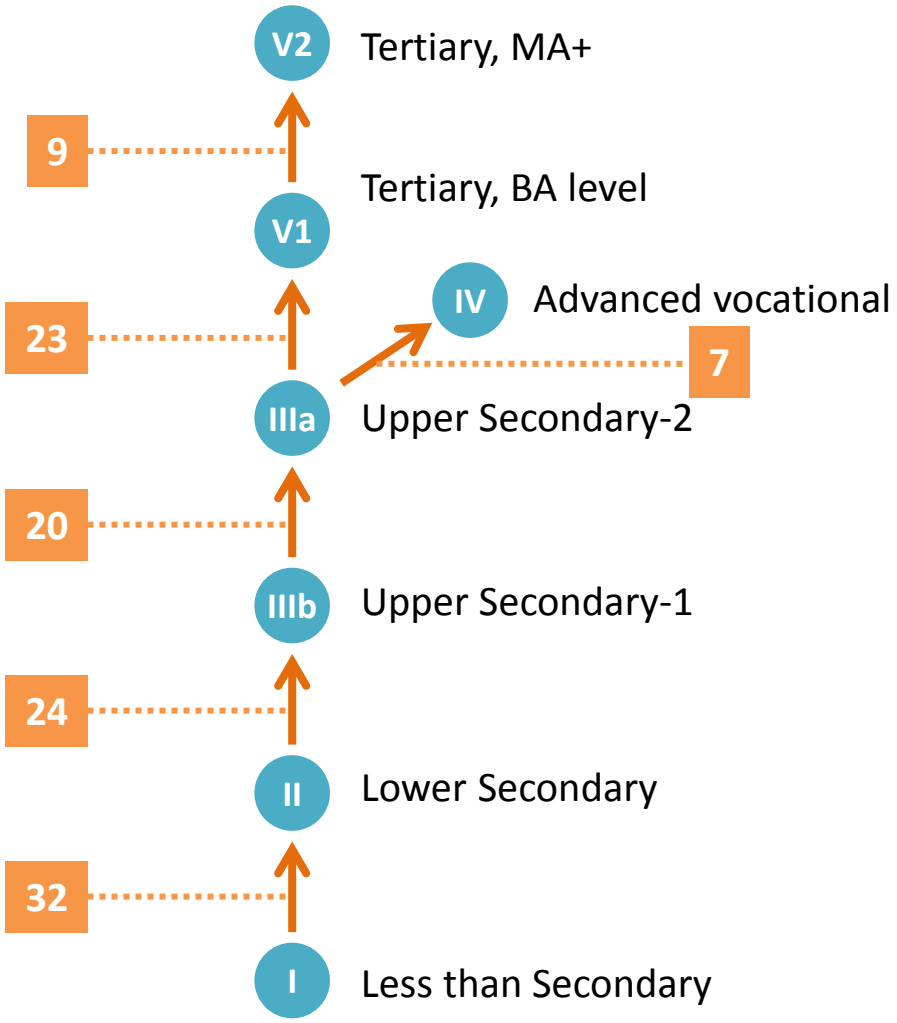
WHETHER THE EISCED CATEGORIES REFLECT THE MAJOR DIFFERENCES BETWEEN LEVELS OF EDUCATION?

Diagram of the education system corresponding to EISCED



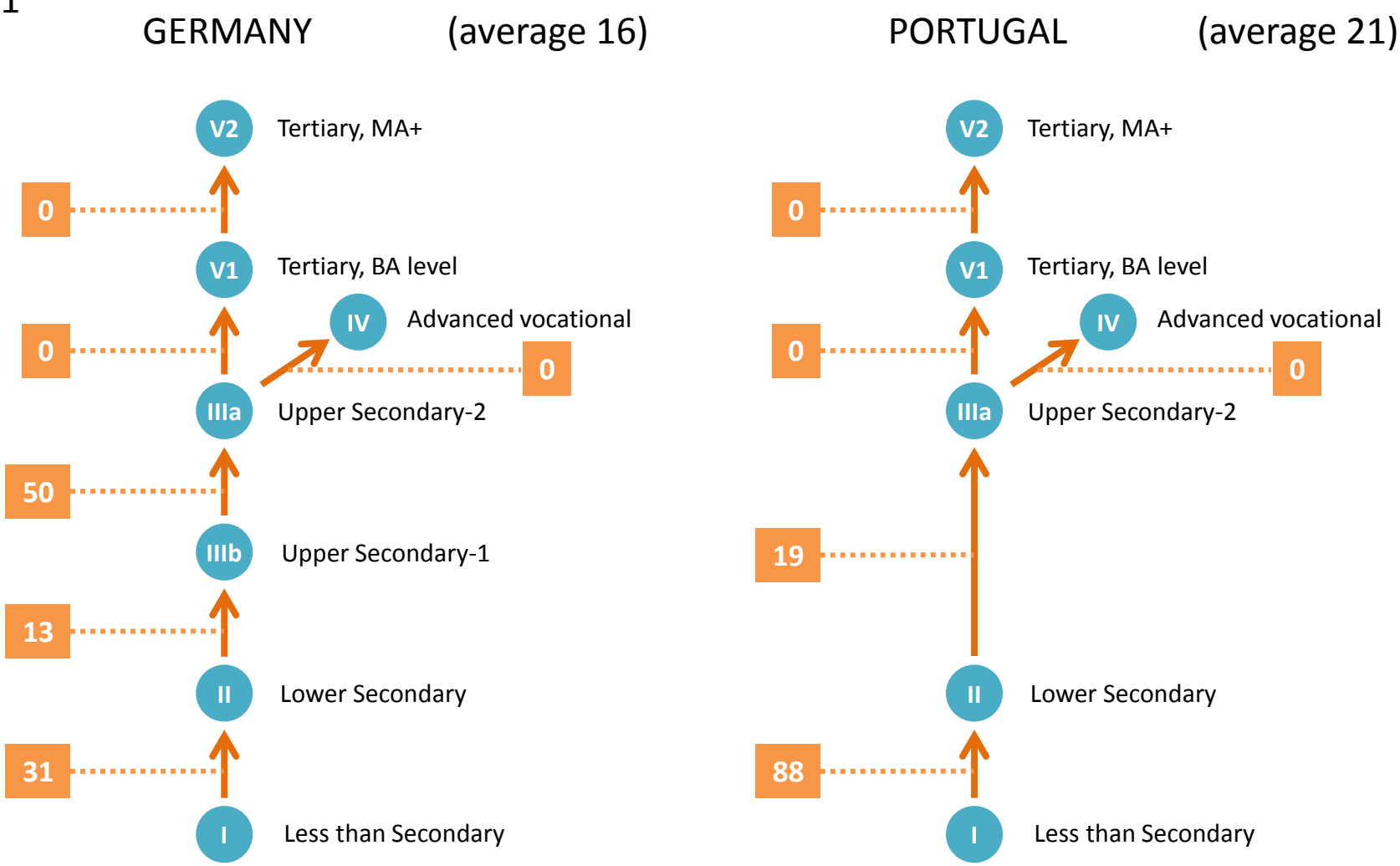
Percent of statistically significant differences between education levels: 16 attitudes and values (all countries)

p=0.01



Percent of statistically significant differences between education levels: 16 attitudes and values (selected countries)

p=0.01



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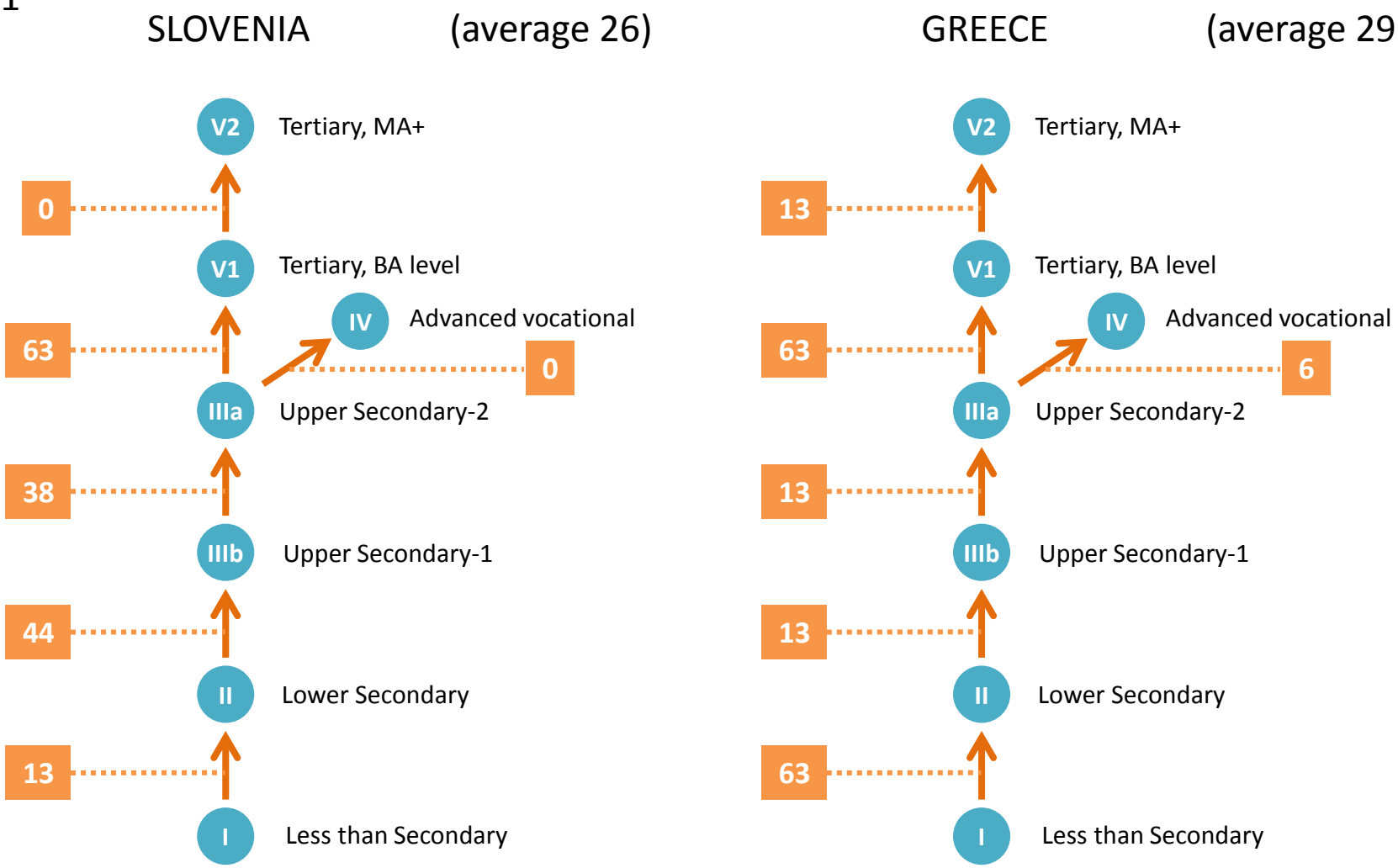

Conclusions

- The EISCED classification provides a limited picture of how education shapes the values and attitudes in the ESS countries. Two main shortcomings of EISCED:
  - combining distinct levels of education within the same category (too internally diverse categories);
  - maintaining the same set of categories in all countries, even if some categories are not well matched to the actual education system.
- National classifications can help to reach a better insight into the bottom categories of education, but not in all countries.
- Combining ISCED categories may be a solution when you can not identify the differences between the education levels due to the small sample size.

Thank you for your attention.

Comments are welcome!

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Zbigniew Sawiński. The International Standard Classification of Education ISCED: The Standard from Sevrès or Satan's trick? *Edukacja*, no 3/2013 [will be published in September 2013 and available online]. www.edukacja.ibe.edu.pl