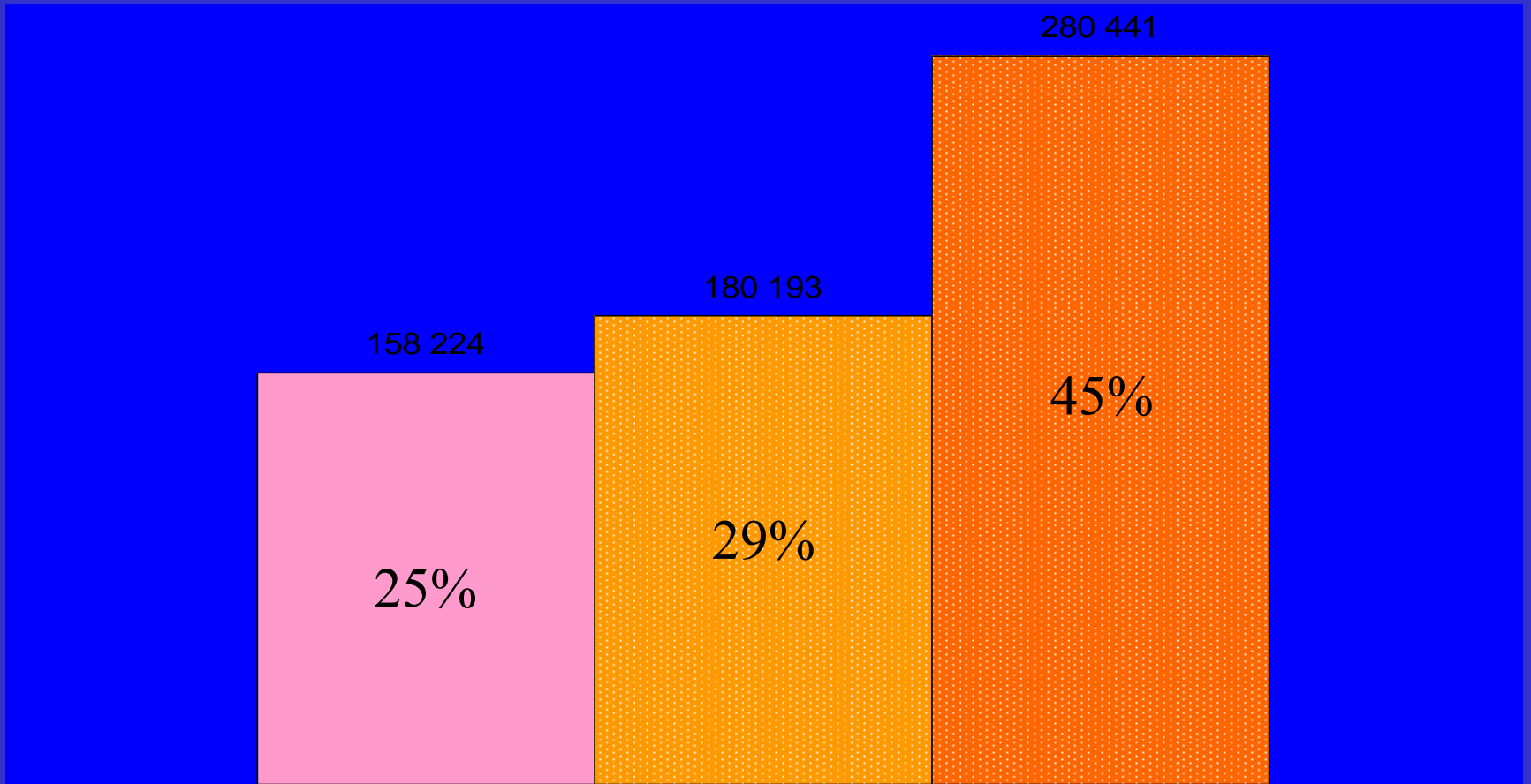


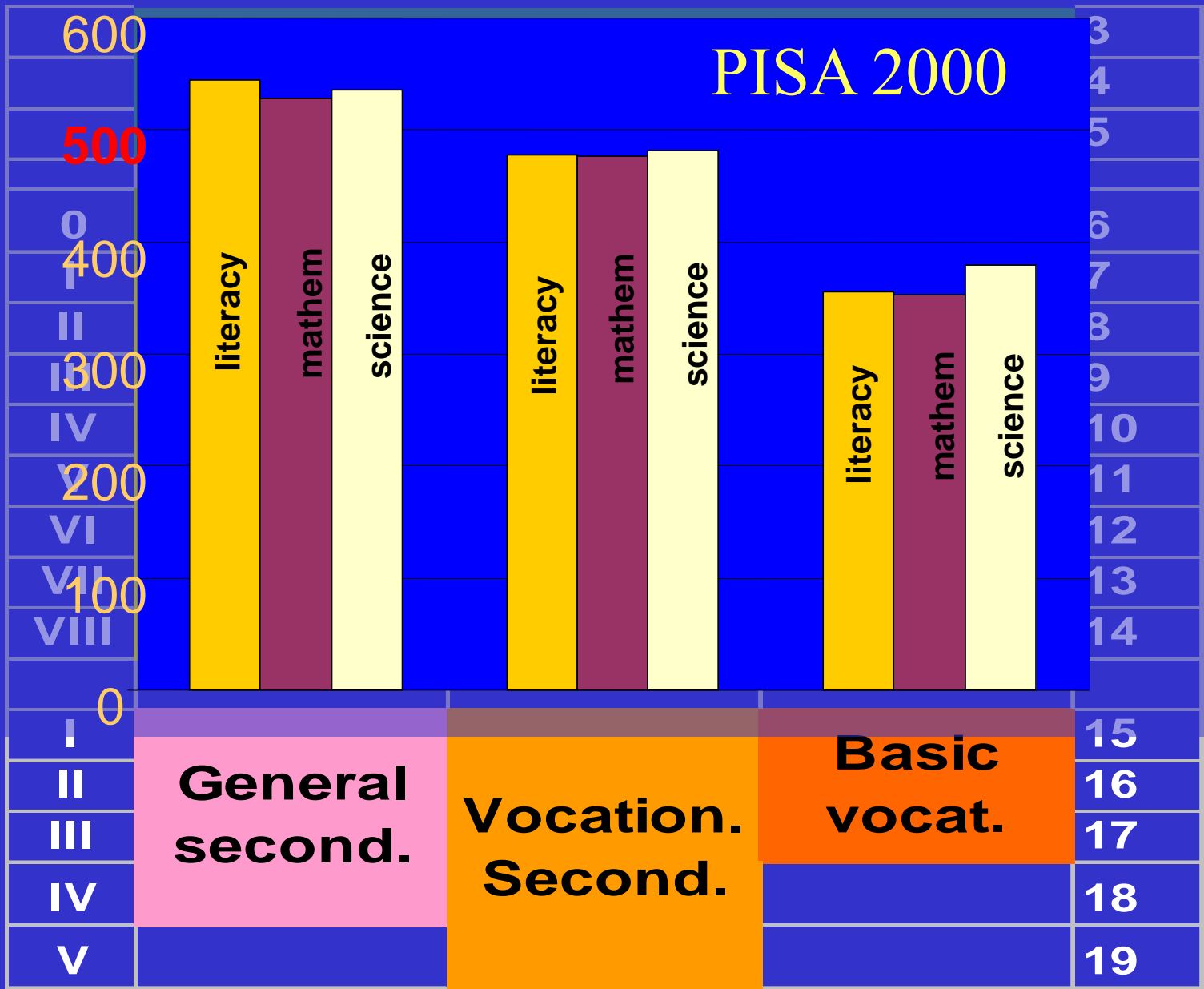
# The role of choice and accountability for the efficiency and equity of schooling in countries in transition

## **Second European Symposium on Economics of Education**

Jerzy Wiśniewski, Ministry of Education  
and Science



I		PISA 2000	Basic	15
II	General second.	Vocation. Second.	vocat.	16
III				17
IV			18	
V				19



600

500

400

300

200

100

0

## PISA 2000

literacy

mathem

science

literacy

mathem

science

literacy

mathem

science

**General  
second.**

**Vocation.  
Second.**

**Basic  
vocat.**

I

II

III

IV

V

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

# Variation in student performance in reading



Between

Within

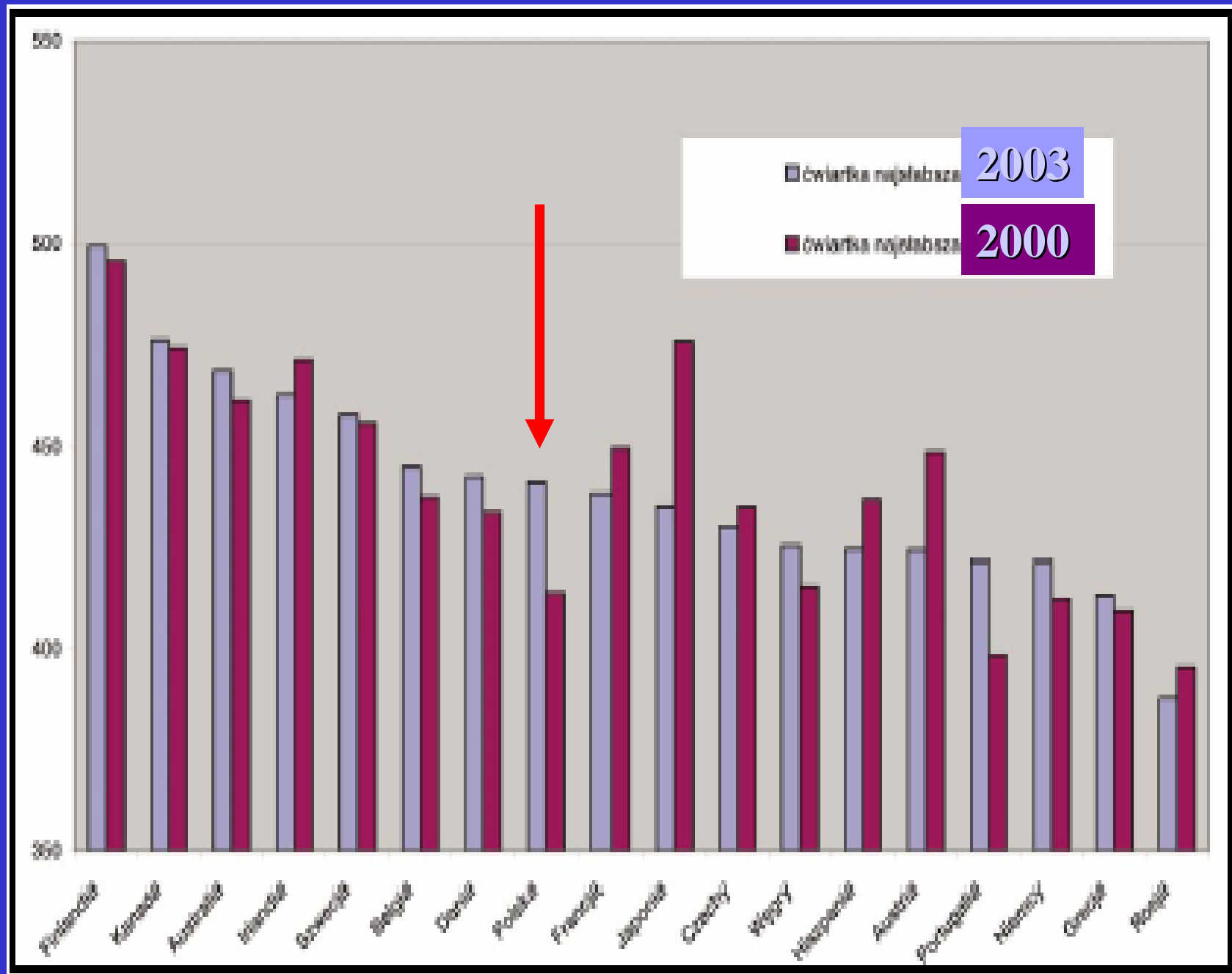
Index of variation (average total variation in OECD countries = 100)

	pre-school education			3
				4
				5
0	"zero" class			6
I	primary school			7
II				8
III				9
IV				10
V				11
VI				12
VII				13
VIII				14
I	General second.	Vocation. Second.	Basic vocat.	15
II				16
III				17
IV				18
V				19

	pre-school education	3
		4
		5
0	"zero" class	6
I	primary school	7
II		8
III		9
IV		10
V		11
VI		12

	pre-school education	3
		4
		5
0	"zero" class	6
I	primary school	7
II		8
III		9
IV		10
V		11
VI		12
	lower secondary school - gymnasium	13
I		14
II		15

	pre-school education				3
					4
					5
0	"zero" class				6
I	primary school				7
II					8
III					9
IV					10
V					11
VI					12
I					lower secondary school -
II	14				
III	PISA 2003 gymnasium				15
I	General second.	Profiled second.	technica vocat. second.	basic	16
II				vocat.	17
III					18
IV					19



# Differences in performance in mathematics (space and shape) – 2000 to 2003

Countries	Differences observed						
	5th	10th	25th	Mean	75th	90th	95th
Belgium	+		++	+++	+++	+++	+++
Czech Republic	++	++	++	++	+		
Denmark	---	---	---	-			
Finland	++	+					
France						++	
Germany				+	+		
Greece					--	--	--
Hungary						+	++
Iceland	---	---	---	--			
Italy			+	++	++	++	+
Korea				+			
Mexico	-	--	--	--	--	-	-
Poland	+++	+++	+++	++			
Portugal	+++	+++	++				
Sweden					--	--	--
United States						+	+
<i>OECD average</i>							
Brazil	+++	+++	+++	+++	+		
Hong Kong - China				+	+++	+	
Indonesia	+++	+++	+++	+++			
Latvia	+++	+++	+++	+++	++	+	
Thailand	+++	+++	++	++			

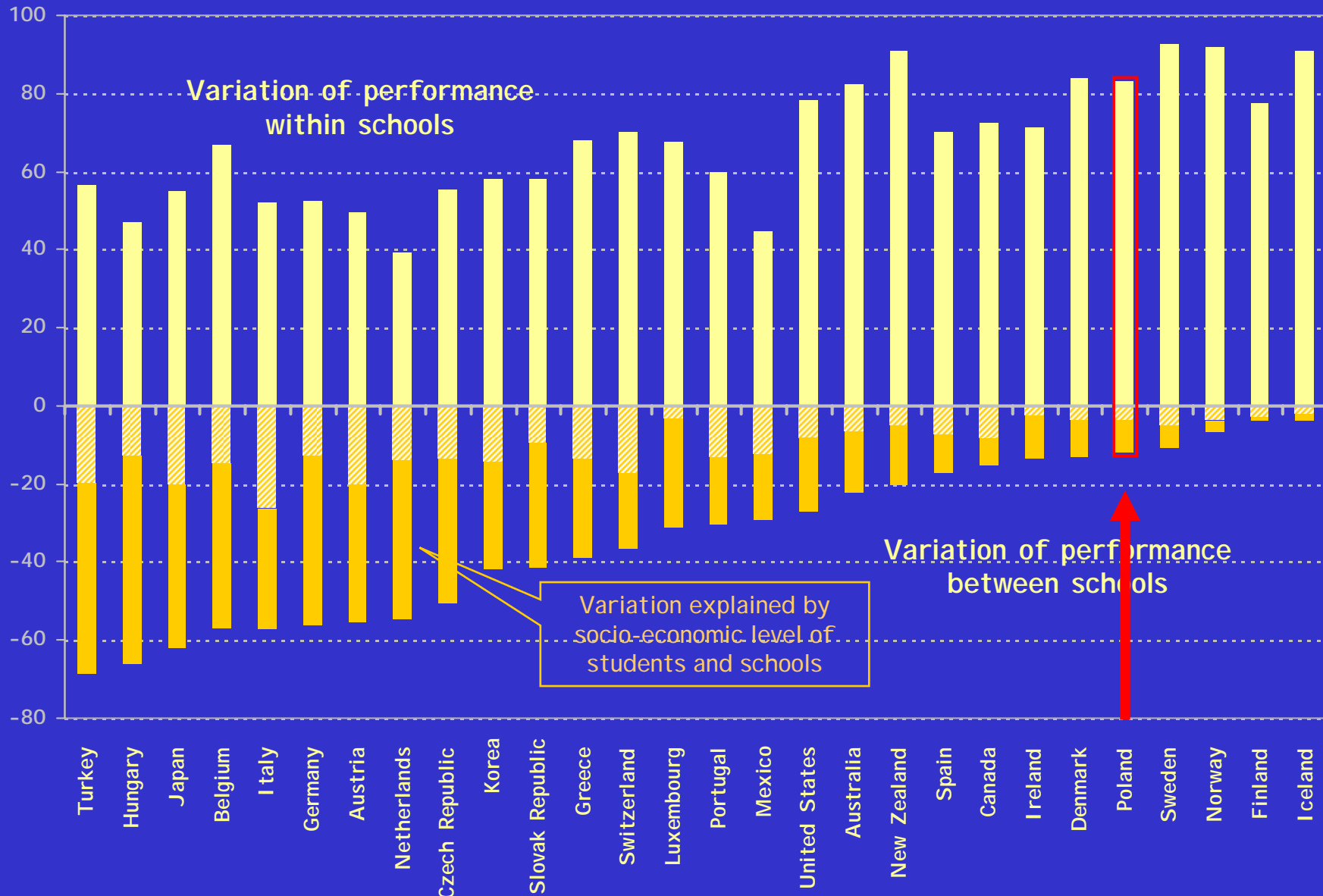
\*Only countries with significant changes are listed

# Differences in performance in mathematics (change and relationships) - 2000 to 2003

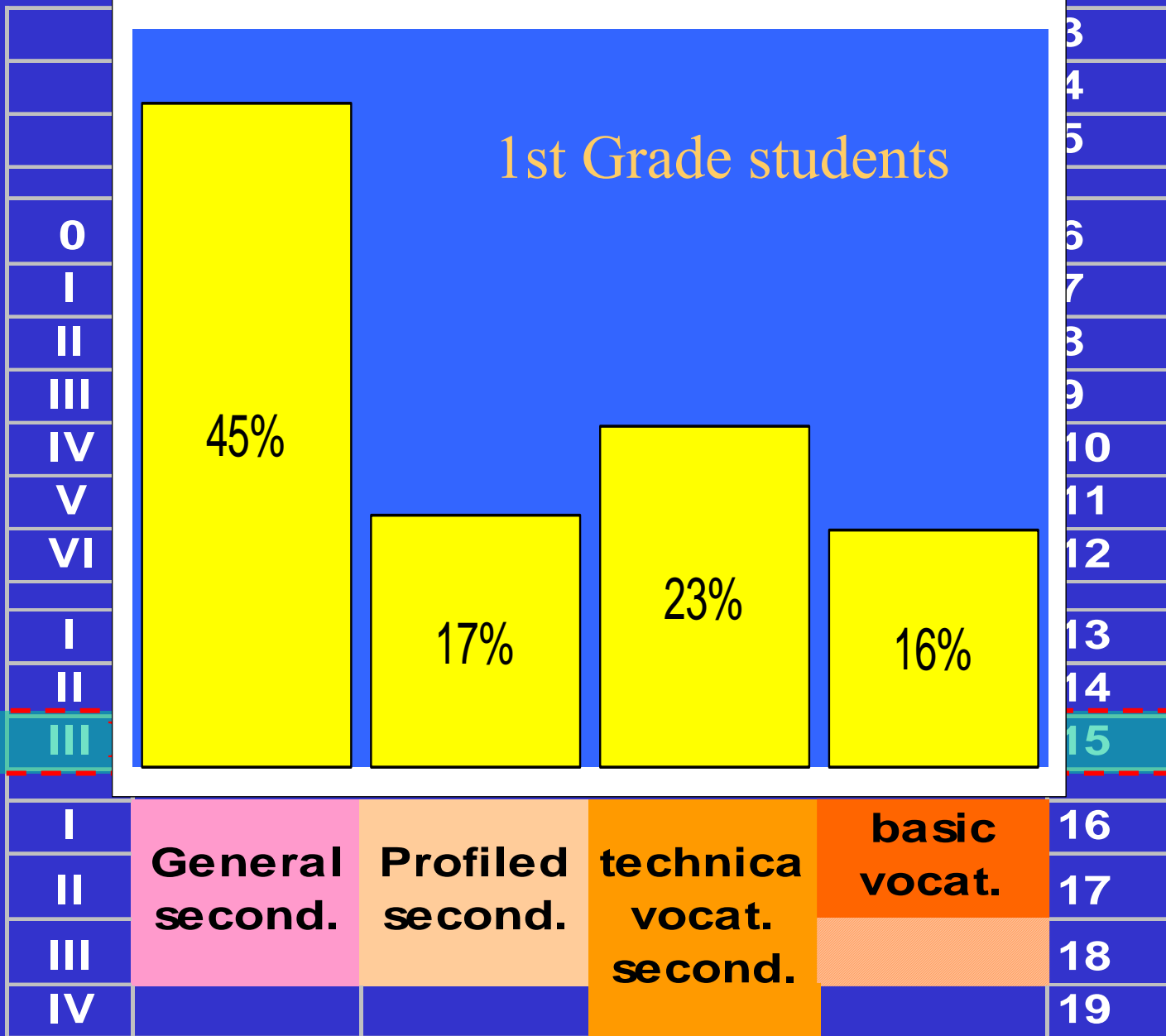
Countries	Differences observed in the mean and percentiles						
	5th	10th	25th	Mean	75th	90th	95th
Belgium	+++	+	+	+++	+++	+++	+
Canada	++	++	++	+++	+++	+++	+++
Czech Republic	+++	+++	+++	+++	+++	++	+
Denmark	++	+					
Finland		+		++	+++	+++	+++
Germany	++	+	++	+++	+++	+++	+++
Greece	+++	++				-	--
Hungary	+++	+++	+++	++			
Ireland						+	
Italy						++	+++
Korea				+++	+++	+++	+++
Poland	+++	+++	+++	+++			
Portugal	+	+	+	+++	+++	++	+++
Spain	+	+	++	++	+		
Sweden						++	++
Switzerland	+++	+++	++	+			
<i>OECD average</i>	+++	+++	+	++	++	++	++
Brazil	+++	+++	+++	+++	+++	+++	+++
Hong Kong-China		-					
Indonesia	---	---	---			+++	+++
Latvia	+++	+++	+++	+++	+		
Liechtenstein	++	++	+++	+++			
Russian Federation	+++	+++	++			-	-
Thailand	---	---	---	--		+++	+++

\*Only countries with significant changes are listed

# Variation in student performance in mathematics



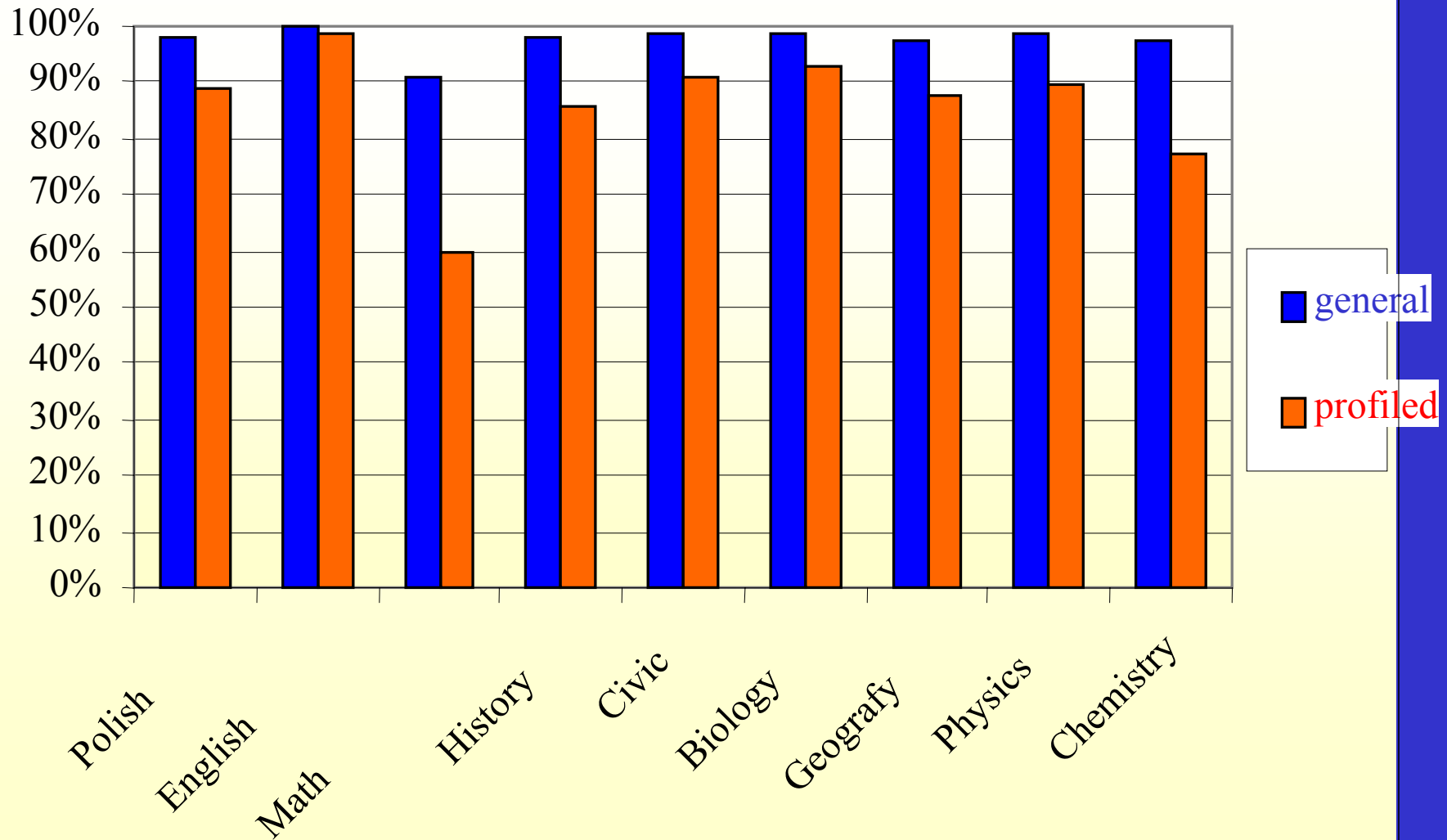
	pre-school education			3
				4
				5
0	"zero" class			6
I	primary school			7
II				8
III				9
IV				10
V				11
VI				12
VII				13
VIII				14
I				
II	General	Vocation.	vocat.	16
III	second.	Second.		17
IV				18
V				19



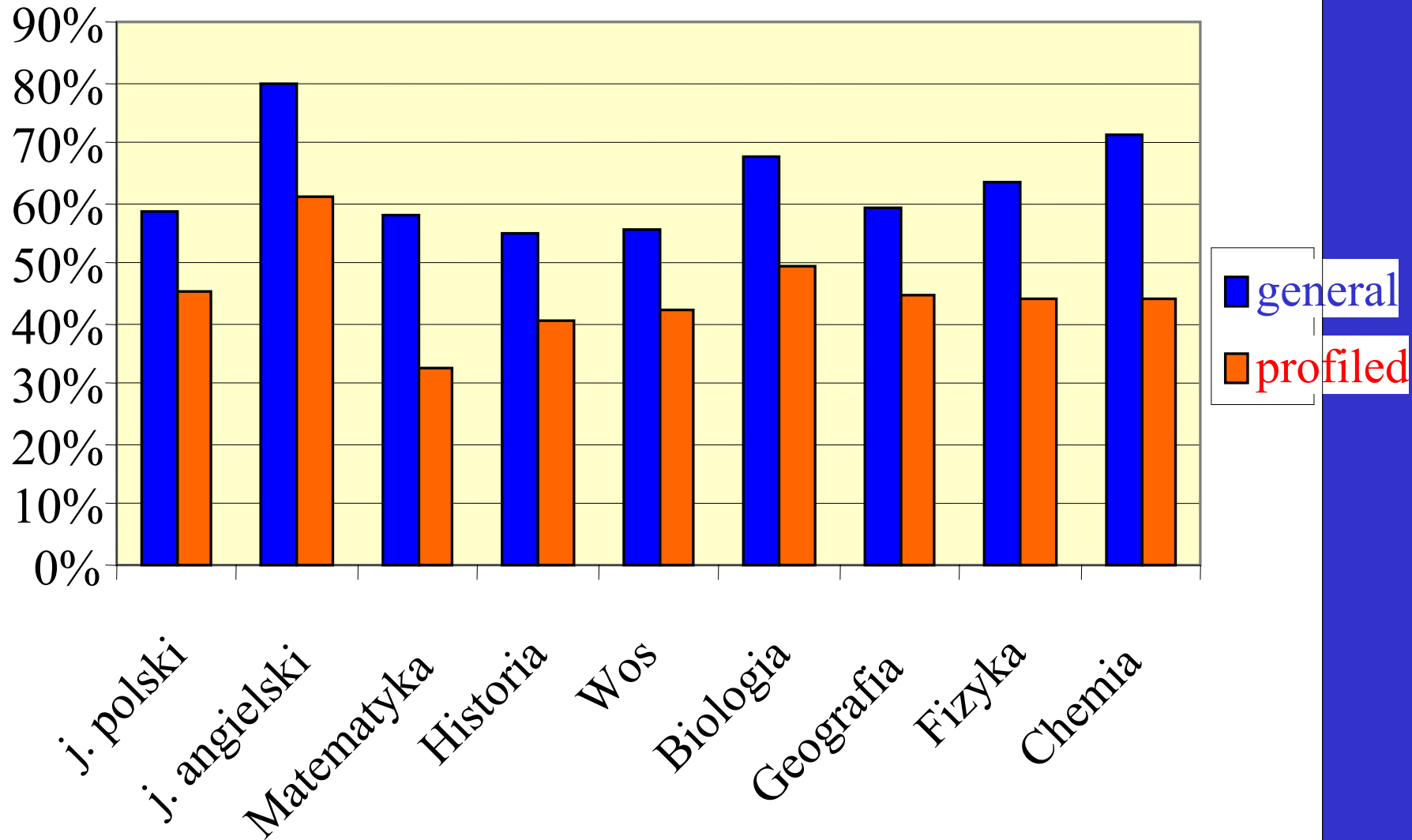
I	General second.	Profiled second.	technicala vocat. second.	basic vocat.	16
II				17	
III					18
IV					19

**Choice, equity...**

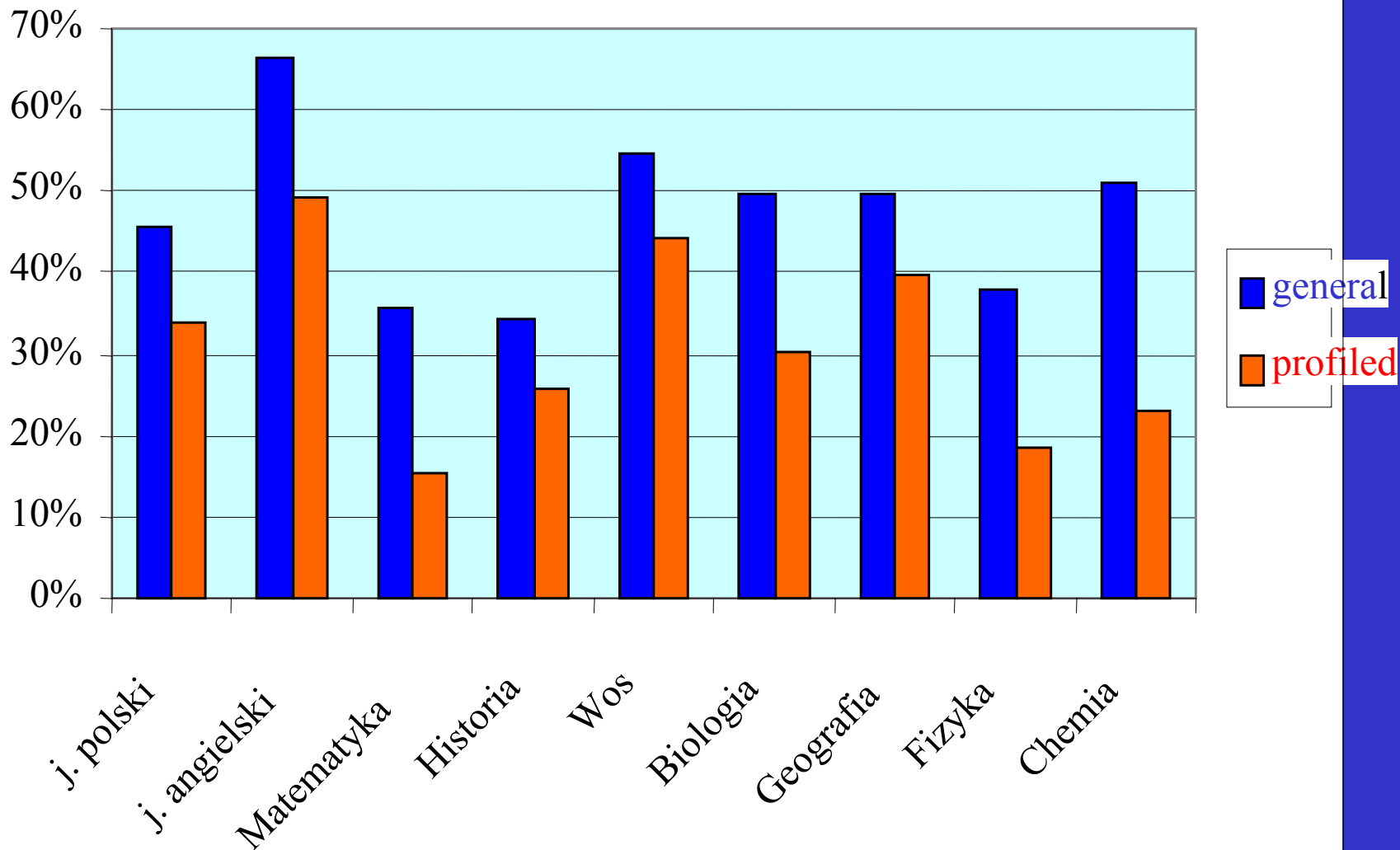
## Matura success-rate



## Average results – basic level



## Average results – advanced level



# Conclusions

- Choice
- Equity
- Accountability
- Quality assurance, quality control