



Workshop on

Changing life opportunities under illiberal rule: drivers of  
social structural change in Hungary

6-7 July 2023

# Mobility regimes in Hungary

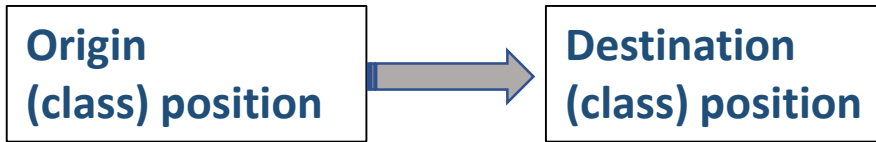
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# Two paradigms

## Social mobility as transitions between statuses

Erikson, Andorka, Golthorpe, Breen et al etc

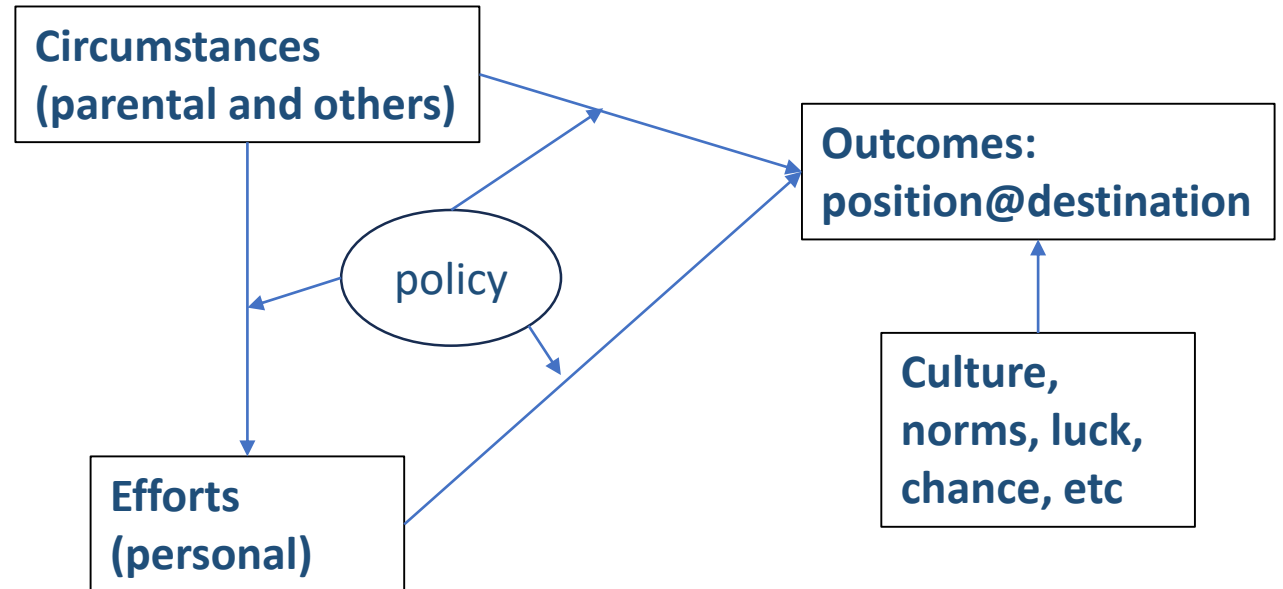


Theories:

- Social classes and their relations
  - by property relationship – a’ la Marx
  - by market positions – a’ la Weber
  - By different forms of capital - a’ la Bourdieu
- Status groups
  - by consumption, lifestyle, etc - a’ la Weber (at extreme: caste)
- Income classes (deciles or median% groups)
- Other kinds of social groups

## Social mobility as chances of attainment (equality of opportunity)

Dworkin, 1981, Roemer, 1998



Theories:

Outcome = f (circumstances; efforts, policies, chance)

Normative message: policies need to clear away obstacles of merit to prevail

Criteria to measure EOP:

- compensation for differences in chances (retrospect)
- ensure equal returns to equal efforts (prospective)

# Adding up to social regimes: meritocracy as equality of opportunity

$$(1) \quad \ln Y = \beta_1 C_{obs} + \beta_2 C_{unobs} + \beta_3 P_{obs} + \beta_4 P_{unobs} + \beta_5 E + \beta_6 S + \varepsilon$$

$$(2) \quad E = \gamma_1 C_{obs} + \gamma_2 C_{unobs} + \gamma_3 P_{obs} + \gamma_4 P_{unobs} + \gamma_5 S + \vartheta$$

The three criteria of **full meritocracy** (Esping-Andersen and Wagner, 2012)

1. social origins do not directly influence the life chances of children, i.e. :  $\beta^2 = 0$  in (1)
2. social origins have no effects on educational outcomes, i.e.  $\gamma^2 = 0$  in (2)
3. educational attainment plays an increasingly strong role in dictating final outcomes, i.e.  $\beta_5$  is strong positive

Where

$Y$ : income of offspring

$C_{obs}$ ,  $C_{unobs}$ ,  $P_{obs}$ ,  $P_{unobs}$  :

observable and unobservable characteristics of the child (C) and parent, respectively,

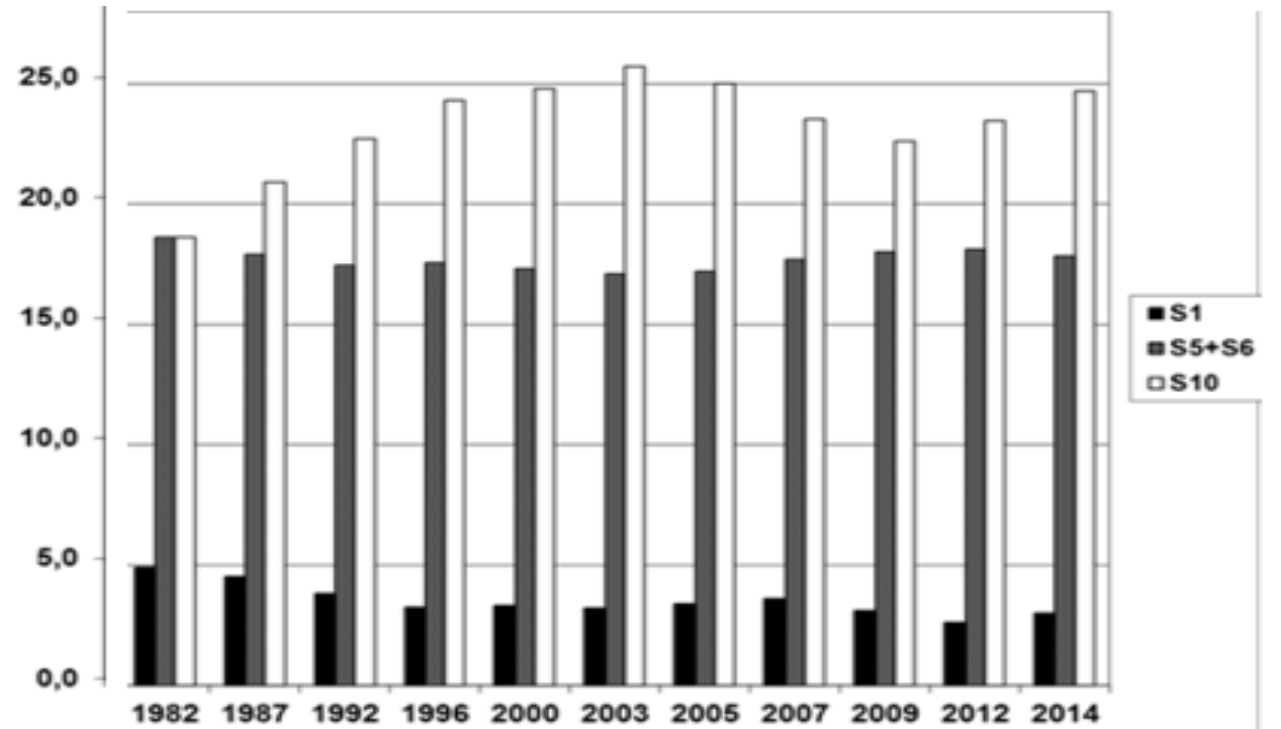
$E$ : education

$S$ : other societal factors (WS, child programmes, etc)

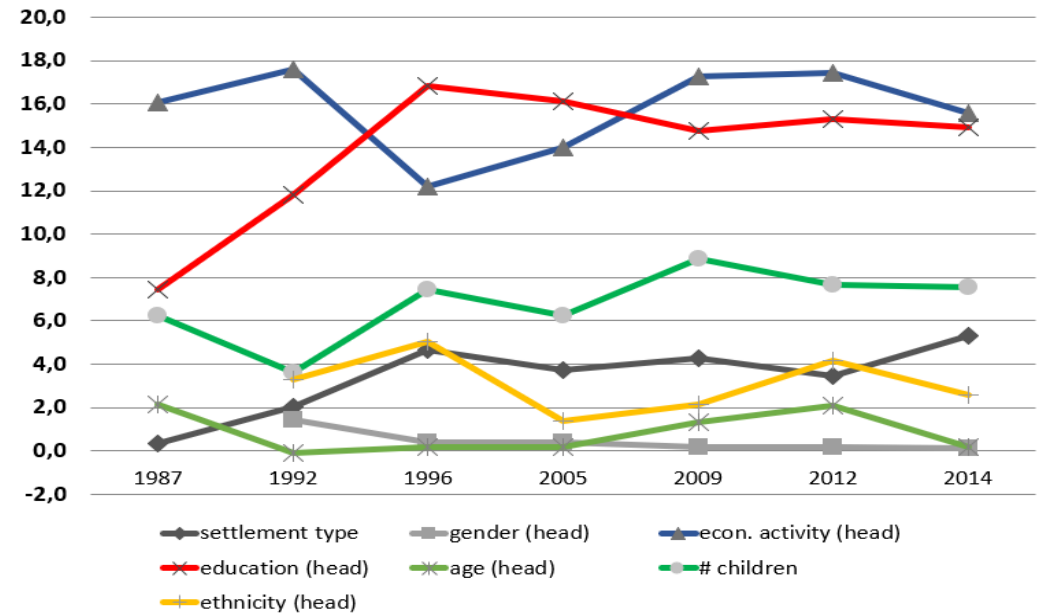
$\varepsilon$ : education of the offspring and  $\theta$  is the error term

# Level and components of income inequality in retrospect

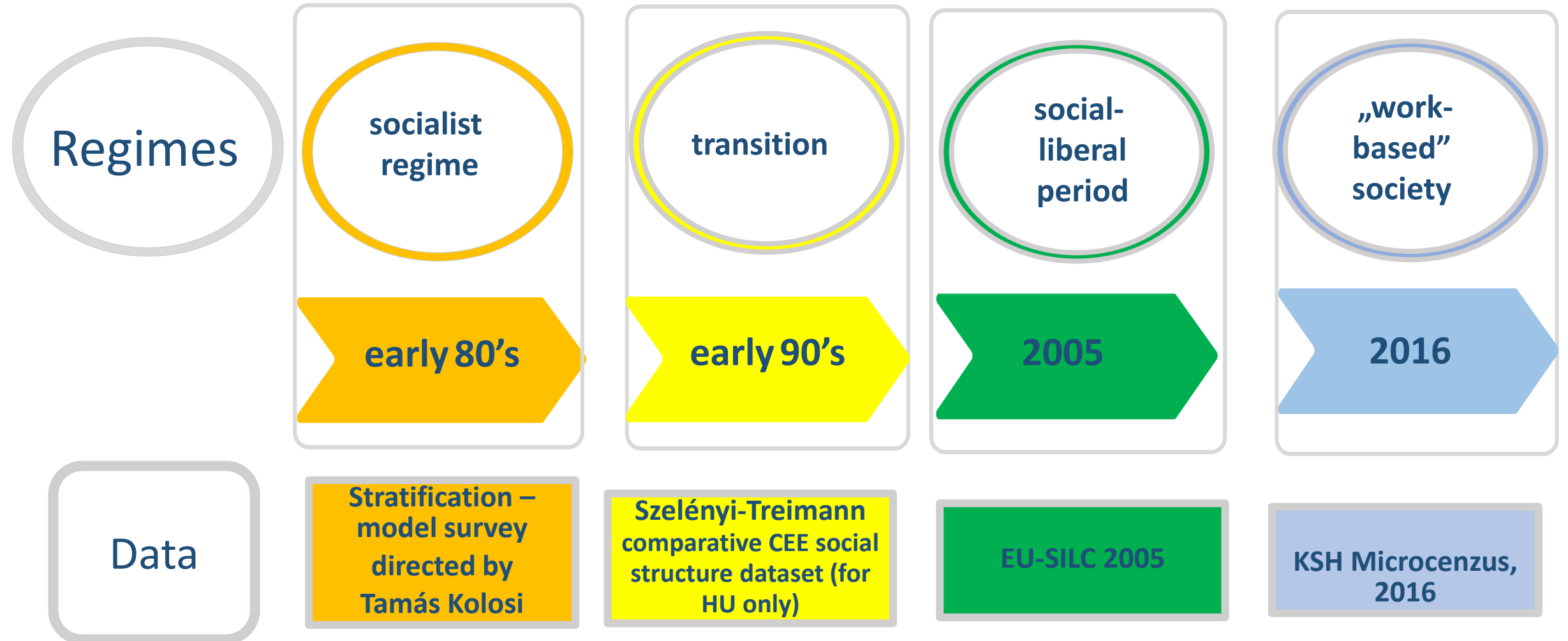
Share of various per capita deciles out of total incomes



Relative contribution of various background dimensions to total Inequality (regression based decompositions % contributions)



# The four periods investigated: mobility regimes and data sources



## The construction of the variable to be explained (material position)

1982	1993	2005	2016
Mat index	Mat index	Income	Mat index
Income hh per cap + wealth index	Income hh per cap + wealth value + savings dummy	HH per cap	Income hh per cap, item missing corrected w hot deck imp. + housing value
Composit: summed up Z scores	Composit: summed up Z scores	Levels	Composit: summed up Z scores

### Units analysed

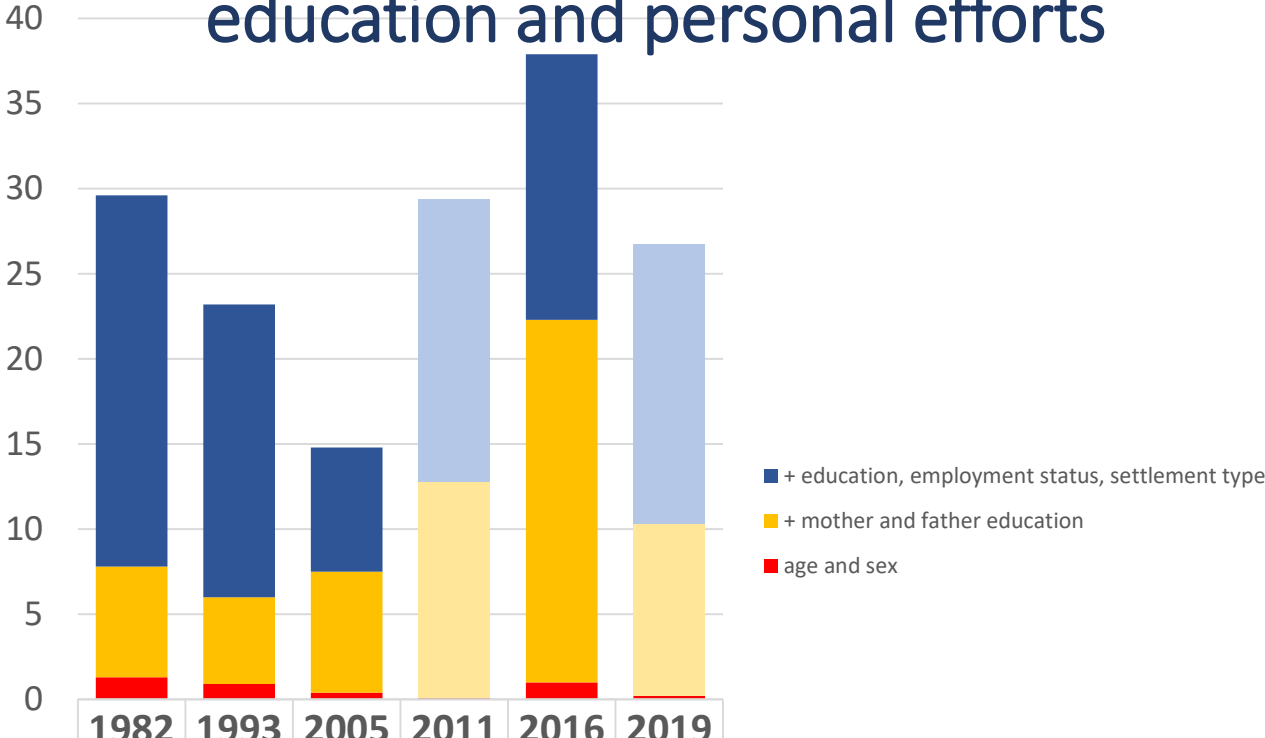
1982	1993	2005	2016
All Individuals from sampled hholds	Individuals, representing hholds	All Individuals from sampled hholds	All Individuals from sampled hholds

# The methodological status and definitions of explanatory variables in models

Variable	Status of variable	Coding
Sex	Origin: circumstances	M/F dummy
Resp. Age		Age in years + 10 yrs age cohorts (1: 18-29, 2: 30-39, 3: 40-49, ..., 5: 60-69, 6: 70+)
Parental education (main observed var)	Origin: parental background	Mother and father education (four categories: max primary, lower sec, upper sec, tertiary) + Combined educ attainment of parents: max primary, mixed, minimum secondary
Own education attainment	Efforts	Max attained education level (max primary, vocational, (higher) secondary, tertiary) + Years of schooling (based on detailed educational level data)
Own labour market position		Inactive, employed, self employed
Type of settlement	Controls	Village, town, city, Budapest (or: 3 cat by density as defined in EU-SILC)
# children below 18 yrs of age		0,1,2, 3, 4+
Potential labour market experience		Age-years of schooling-6

# Findings (1) Explained variance (adjusted R<sup>2</sup>) by personal circumstances, parental education and personal efforts

Method: stepwise analysis of OLS R<sup>2</sup>-s, by block of vars of interest) and change in parameter estimates in consequent steps



Origin explains larger share of the variance in 2005 and 2016 than before

Perhaps: the socio economic transition may have brought meritocratization, followed by a reversal recently?

Notes: models run for 25-59yr individuals

2011: bad parental education coding

2019: bad income variable

R<sup>2</sup> increments by blocks

	1982	1993	2005	2011	2016	2019
+ education, employment status, settlement type	21,8	17,2	7,3	16,6	15,6	16,4
+ mother and father education	6,5	5,1	7,1	12,7	21,3	10,1
age and sex	1,3	0,9	0,4	0,1	1	0,2

% of circumstances	1982	1993	2005	2011	2016	2019
+parental bacground						
In total expl. variance	26	26	51	44	59	39



# Findings (2) Effect of own education and parental education on material position

OLS regressions, standardized beta, sign@p<0,01, except the bracketed values)

	1982	1993	2005	2016
education (completed school years)	,41	,41	,25	,38
father education (4 category)	(,02)	(,03)	,07	,12
mother education (4 category)	,04	(,01)	,05	,11
R <sup>2</sup> (adj, %)	30	23	15	38
N (weighted)	7602	2929	8572	4155078

Parameter estimates

B estimates:  
For parental educ.  
get higher and  
significant over time

For own educ. are  
always high, though  
getting weaker  
over time

Notes:

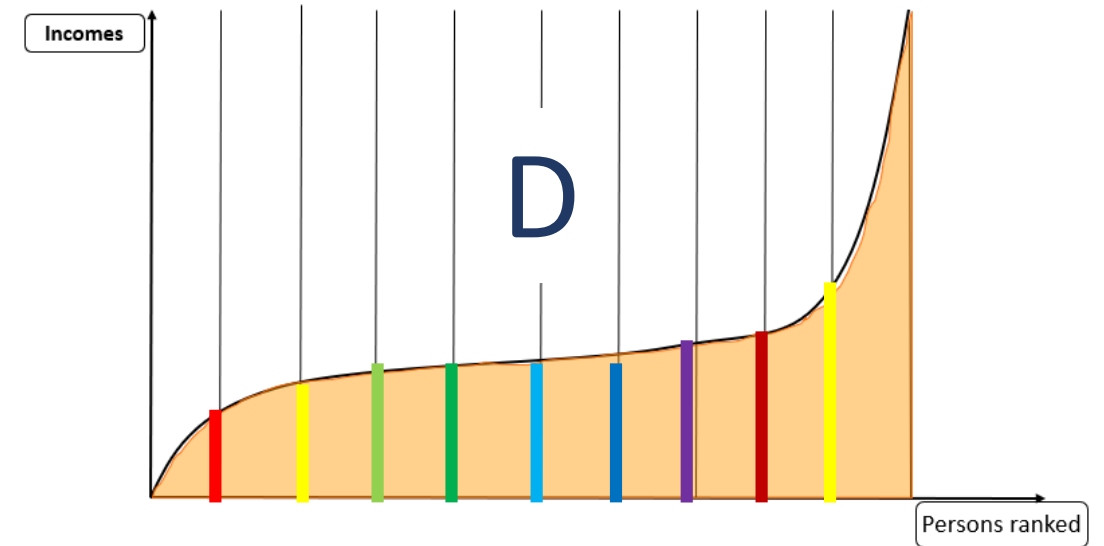
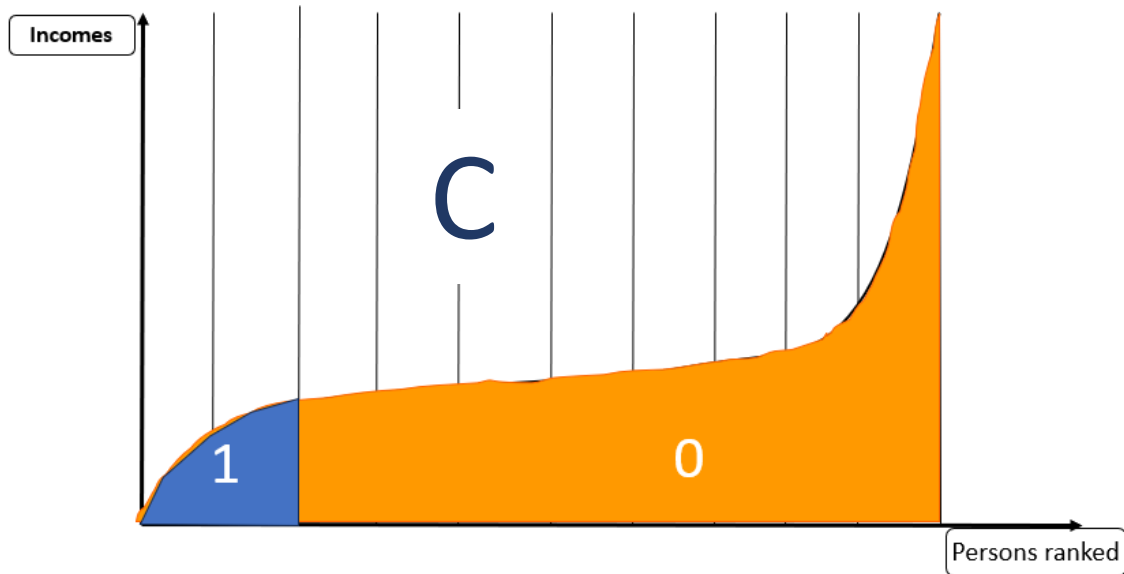
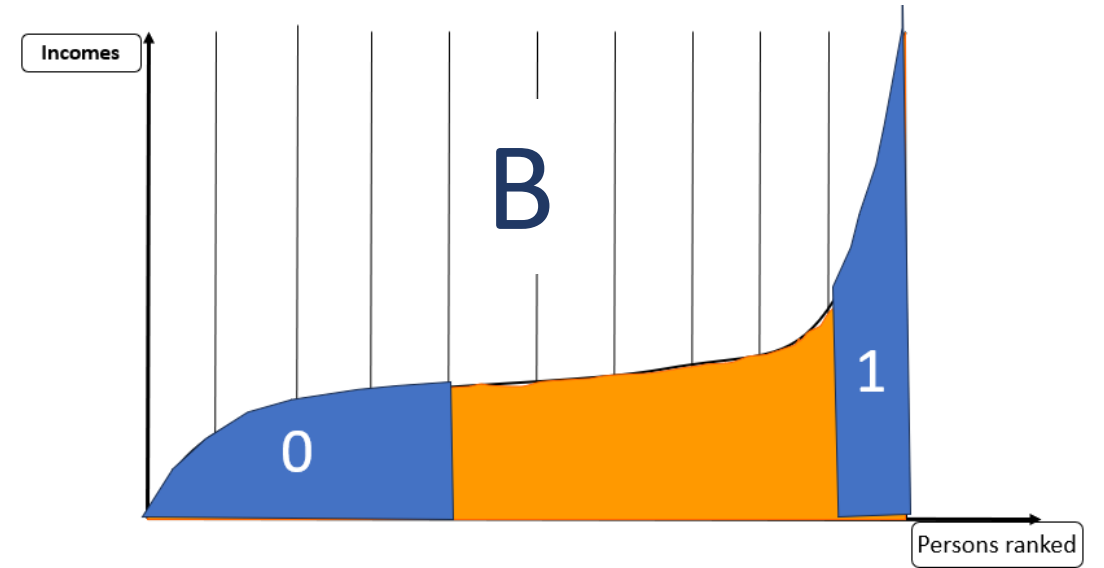
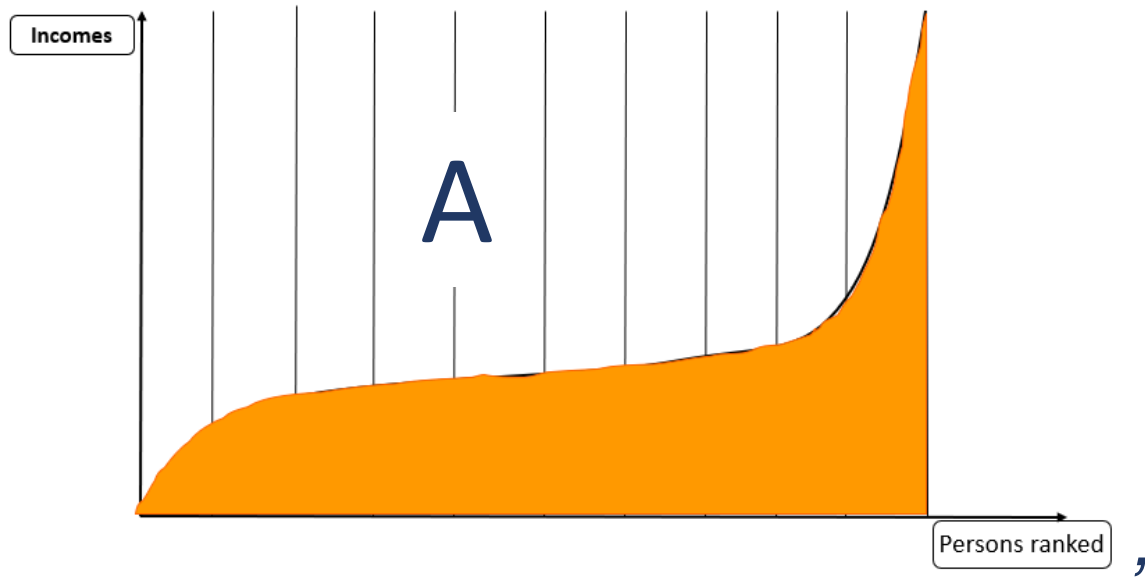
Cases: 25-59 yr individuals

predicted: material index 1982, 1993 and 2016, income in 2005

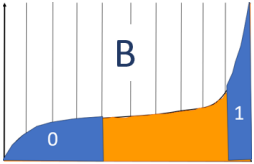
controls: sex, age (10 yr cohorts), employment status (employed, self employed, inactive), settlement type

# The three (B, C and D) specifications for logistics regressions

$$\text{Prob}(\text{event}) = 1/(1 + e^{-Z}),$$
$$Z = B_0 + B_1X_1 + B_2X_2 + \dots + B_kX_k$$



# Findings (3) Odds ratios (exp(B) values), top10% vs bottom 40% (B)

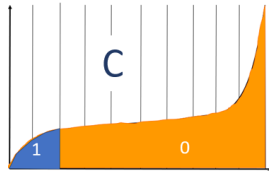


	1982	1993	2005	2016
women	,8	1,5 <sup>b</sup>	,8	,8
combined parent educ: mixed	1,4 <sup>a</sup>	(0,8)	(1,1)	<b>1,7</b>
combined parent educ: at least tertiary	1,5 <sup>b</sup>	(1,1)	<b>2,0</b>	<b>3,8</b>
education: vocational	4,3	3,4	(2,1)	3,3
education: secondary	14,9	11,3	7,1	12,7
education: tertiary	<b>75,9</b>	<b>115,7</b>	<b>64,3</b>	<b>85,4</b>
employed	3,3	3,2	2,9	1,7
self employed	3,0	13,2	2,0	5,9
N (unwght)	3421	1393	4213	55602
corr pred (%)	86,2	84,5	86,9	87,8

- Notes: significance ()=n.s. a: 0,01<p<0,05 , b: 0,05<p<0,1; Controls for age cat (10yrs), settlement type, # of children,

## Findings (4): Odds ratios (exp(B) values), bottom20% vs upper 80% (C)

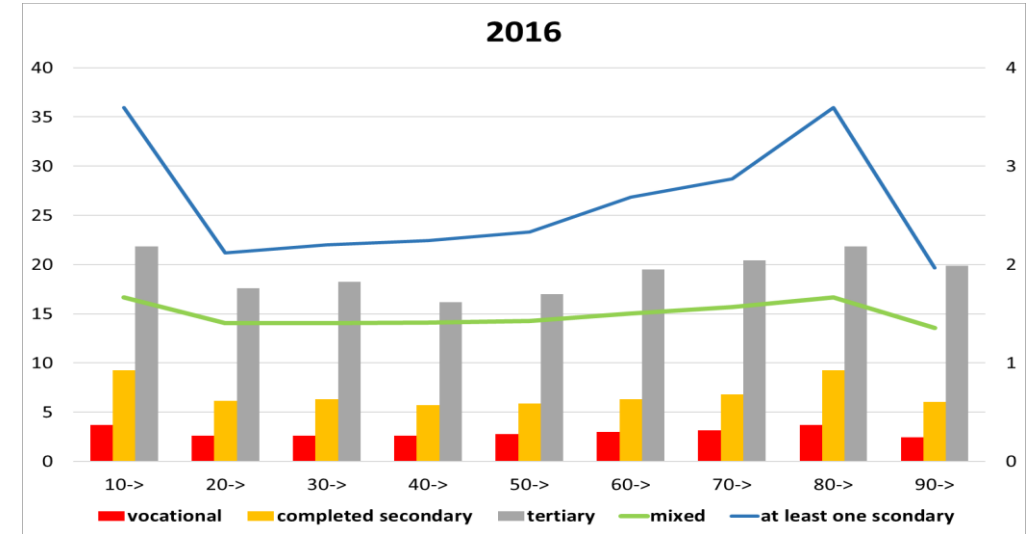
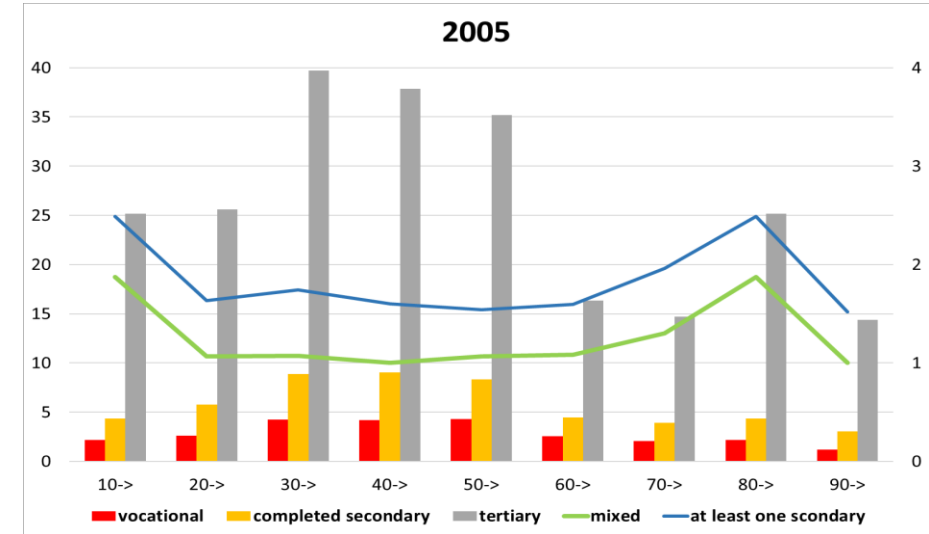
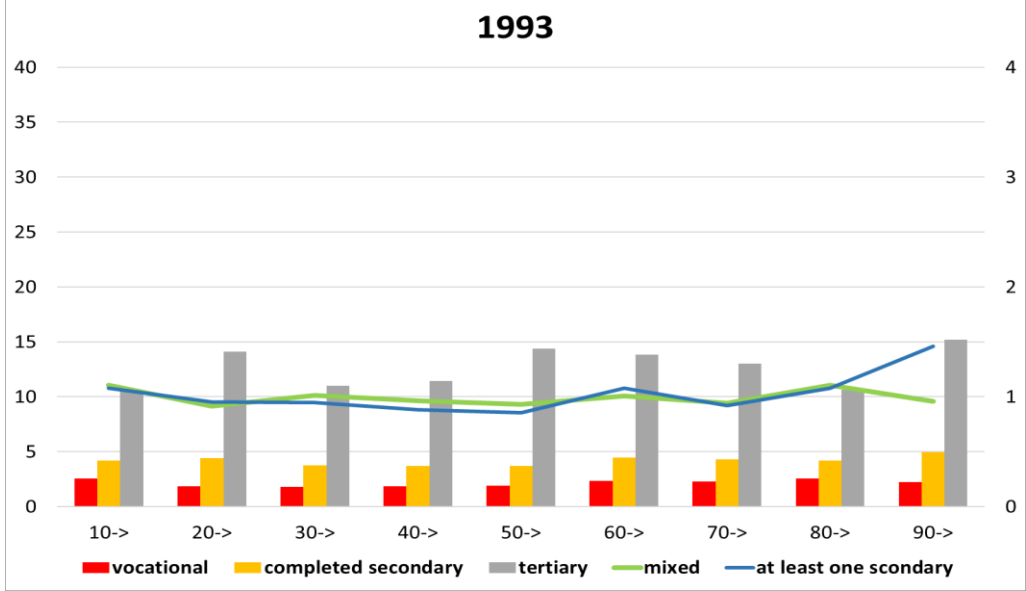
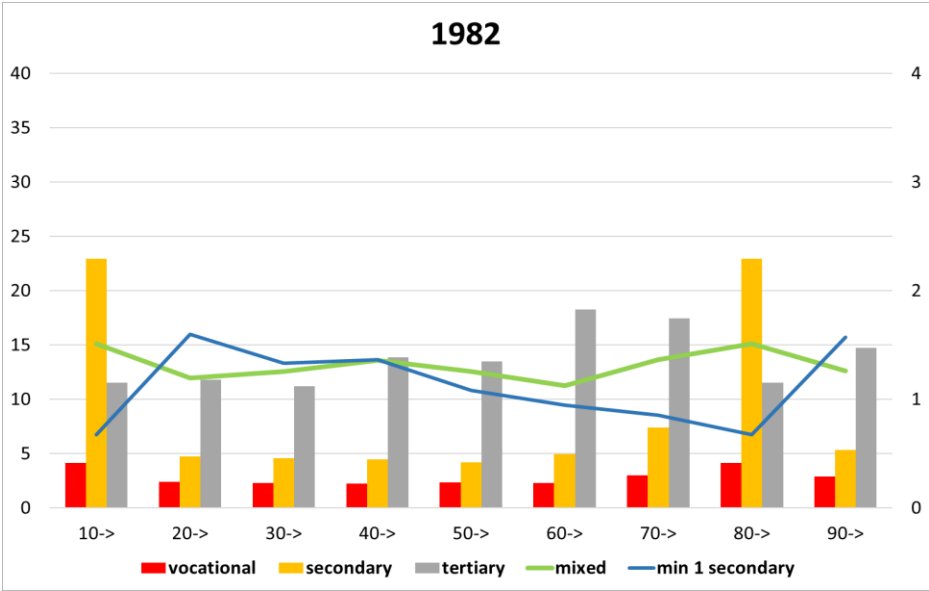
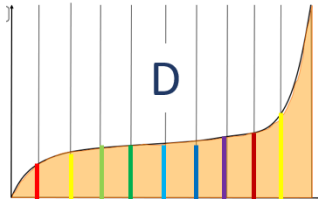
	1982	1993	2005	2016
women	1,32	(0,95)	1,16 <sup>a</sup>	0,98
combined parent educ: mixed	0,73	(1,06)	<b>0,77</b>	<b>0,64</b>
combined parent educ: at least tertiary	(1,17)	(1,09)	<b>0,51</b>	<b>0,35</b>
education: vocational	0,33	0,44	0,48	0,32
education: secondary	0,14	0,23	0,26	0,15
education: tertiary	<b>0,06</b>	<b>0,08</b>	<b>0,07</b>	<b>0,05</b>
employed	0,32	0,45	0,58	0,61
self employed	0,63	0,17	1,08	0,24
N (unwght)	7602	2958	8227	55602
corr pred (%)	87,7	83,7	83,4	85,10



- Notes: significance ( )=n.s. a:  $0,01 < p < 0,05$  , b:  $0,05 < p < 0,1$ ; Controls for age cat (10yrs), settlement type, # of children,

# Findings (5): The odds of escape: exp(B) values of logistic regressions to predict chances of getting through various decile cutpoints (by own and by parental education)

(D)



controls: sex, age (10 yr cohorts), employment status (employed, self employed, inactive), settlement type

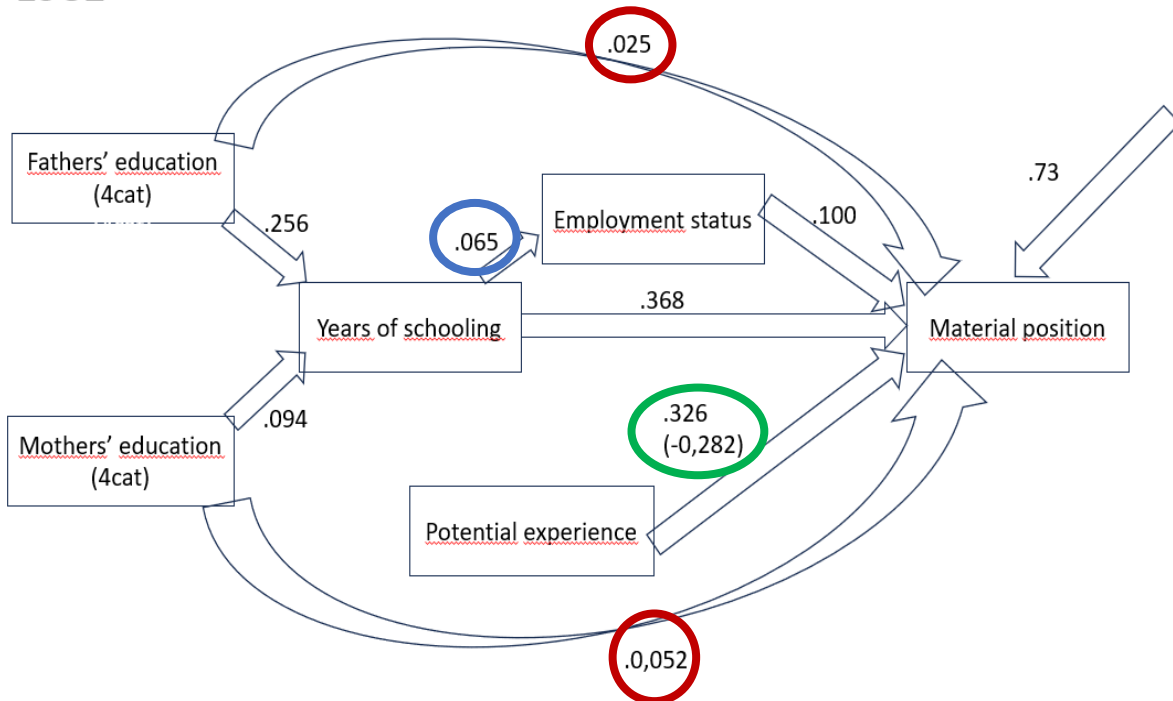
# Finding (5) Path models for 1982 and 2016

$$\text{Schoolyears} = \beta_1 \text{fatheduc} + \beta_2 \text{motheduc} + \varepsilon \quad (1)$$

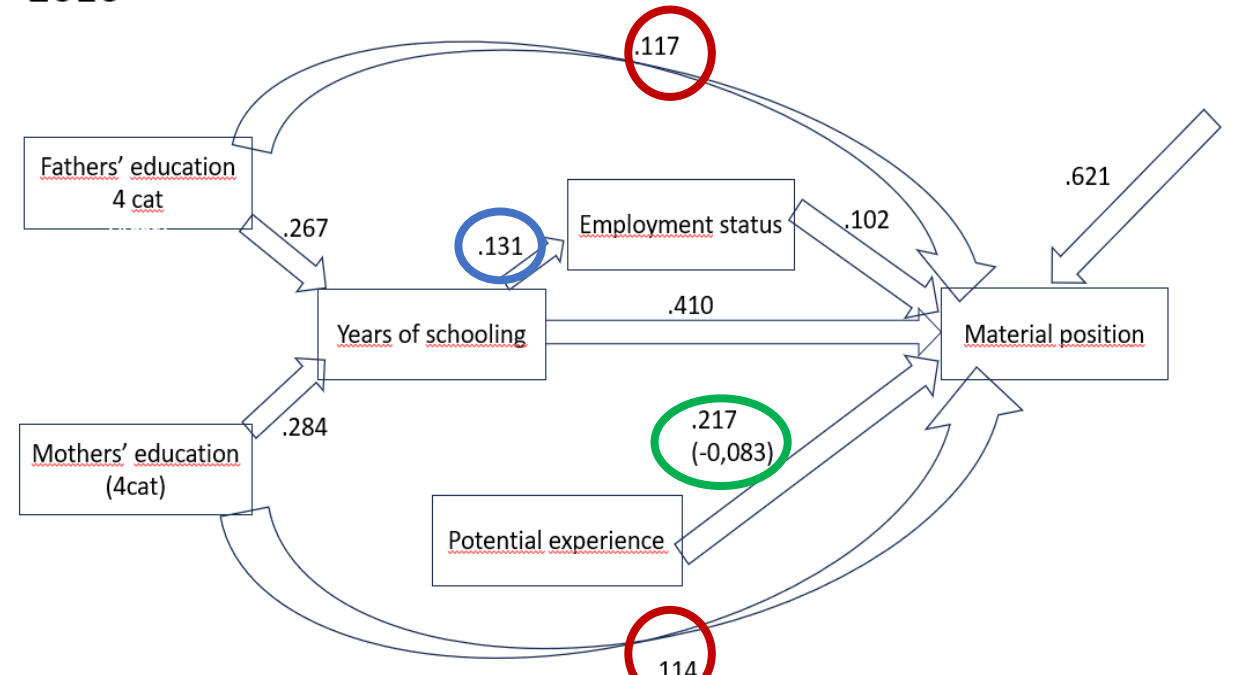
$$\text{Empl stat} = \beta_3 \text{schoolyears} + \varepsilon \quad (2)$$

$$\text{Mat\_pos} = \beta_4 \text{fatheduc} + \beta_5 \text{motheduc} + \beta_6 \text{schoolyears} + \beta_7 \text{empl\_stat} + \beta_8 \text{exp} + \beta_9 \text{exp}^2 + \varepsilon \quad (3)$$

1982



2016



# Summary and takeaway

Social origin explains larger share of the variance in 2005 and 2016 than before

The socio economic transition may have brought meritocratization, followed by a reversal recently

Role of education attainment was always significant and substantial, getting weaker over time since 2005

Parental education mattered in 1982, its role declined in the first period of the transition, then (in 2005 and 2016) it increased again. In 2016, parental education does have a significant secular effect on material position.

Parental education helps raise and prevents falling

This seems to hold at all levels of income (all decile cutpoints)

# Trends that matter (counter meritocracy)

## Education

Fragmented public schooling: early selection, large quality and efficiency differentials, segregation

Tendencies, growing importance of private schools, study abroad (see works of Lannert, Varga, Csapó et al, Kertesi and Kézdi and others, Lőrincz and Antal-Fekete, 2022, Lőrincz 2023? Róbert, 2019)

## Demography (assortative mating)

Decline in hipogamy, increase of homogamy (Esteve et al, 2012, for 1980-2010 and own calculations of KSH censuses for 2011-2016)

Interactions of marital sorting with mobility Erát, Füzér and Huszár, 2022, Erát, 2022

Relative large weight in income inequality (Förster and Vindics, 2020)

## Wealth and inheritance

The increasing role of inheritance (new phase of transition – the passing through of wealth accumulated by the first generation „builders” )

Increase of rents (political redistribution of income generating assets) (Mihályi and Szelényi, 2019, Medgyesi, 2022, 2023)

## Questions:

Closure: towards class or status? (Tóth and Szelényi, 2018)

What role for meritocracy, aristocracy and plutocracy?