

Social mobility in China

Rising opportunity, falling equality

– a case study of quantitative sociological approach to social mobility research for the Global South
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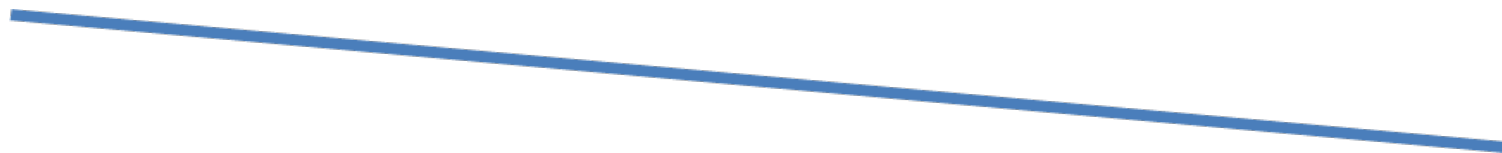
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Quantitative sociological approach to social mobility research in the Global South: what, why and how?

- Are we to address a different kind of research question?
- Does it imply that there are greater differences among developing countries than between them and developed countries, or that there are both differences and similarities?
- If it is a matter of degree, are theories, analytical frameworks and methods designed for mobility research in developed countries still useful for developing countries?
- Should we pay more attention to absolute or relative mobility when conducting research on the Global South?
- Should we study class, education or earnings mobility in poor countries as we do in developed countries?
- If we do use, say, a class approach, do we have a schema befitting both developed and developing countries? Should we design a new schema or adopt/adapt existing schemas according to socio-political-cultural specificities of the specific societies?
- In this talk, I will use China as a case study to show the generality and the specificity of mobility research
- Why China? Because it is unique: most populous, fastest developing, and markedly unequal; and because there might be some fit with UK

Key findings on social mobility in developed countries (Britain)

- **Pessimist: declining mobility** by economists (Blanden et al., 2004, 2005, 2007, 2013) on parental income and R's education and income – rates or elasticities



- **Sceptic: constant/common flux** (or trendless fluctuation) by sociologists (Goldthorpe, 1980, 1987; Erikson and Goldthorpe 1992; Breen and Goldthorpe 1999, 2001; Goldthorpe and Mills 2004, 2008; Goldthorpe and Jackson 2007; Bukodi and Goldthorpe, 2009, 2013, 2016, 2019) on absolute and relative rates



- **Guarded optimist: signs of hope amidst vast inequalities** by sociologists (Heath and Payne 2000; Lambert, Prandy and Bottero, 2007; Breen et al 2009, 2010; Li and Devine, 2011, 2014; Devine and Li, 2013; Li, 2010, 2013, 2018; Li and Heath 2014, 2016, 2018; Heath and Li, 2018) on class, income and educational mobility showing a small but significant increase in fluidity

Map of the People's Republic of China (PRC)



China is a big country with a long history



Between 'heaven and earth'?



A great chasm even in the rural areas



To understand social mobility in China today, we need to understand the country's socio-economic-political policies and cultural heritages yesterday, especially the major policies in the last few decades **PRC 1949**



1949年，开国大典，城楼上的毛泽东。

An overview of major policies/events

Early 1950s: Public ownership of the means of production

- All land, factories, capital etc belong to the state/government
- Socialist reconstruction: collectivisation/nationalisation
- State and collective owned enterprises (SOEs & COEs, *danwei* 单位) in the urban sector, with different hierarchies
- People's commune in the rural sector

Late 1950s: Household registration system (*hukou*) 户口

- Urbanites have non-agricultural (urban) *hukou*;
- Rural dwellers have agricultural *hukou*;
- New-born children to register with mother's *hukou*,
- Rural to urban *hukou* conversion rare: 1-2‰ per annum
- Urban *hukou* holders (on state farms) may do farm work
- Rural *hukou*-holders may do non-farm work: some are cadres, teachers or doctors but their children remain peasants

1966-1976: The Great Cultural Revolution

***hukou* (household registration system) as passport**

- initialised in 1955; fully implemented and enforced in 1958
- As over 80% of the people lived in rural China at that time, more so for women, they and their children were bound to the land.
- People of rural hukou status has no access to state benefits such as food rations (1958-1992), jobs, housing, medical care, pensions etc. which were only given to urbanites during the era of the planned economy
- Rural children could not attend schools in cities and even those who followed their parents to cities had to go back to their original provinces for national examinations for university admission, which requires much higher entry marks for them than for urbanites



Implication of *hukou*

- Social mobility via *hukou* change was generally a Mission Impossible, except for the 'best and brightest', and luckiest. The main routes were via (1) higher education, (2) joining the army and becoming an officer, or (3) joining the CCP and becoming a leading cadre.
- But this group of *hukou* converters, while small in proportion, was big in absolute numbers, given China's vast rural base, and they tend to occupy 'elite' positions in cities, making the mobility of the currently urban population surreally open and fluid, masking the real extent of social inequality in China.
- Thus, research on social mobility among the current urban *hukou* holders overstate China's social fluidity. We have to look at the mobility of the whole population taking people's social (class and *hukou*) origin, rather than the current *hukou* status, as the starting point.

40 years of reform but legacies of *Hukou* go on

- Even during the reform period, rural people still hold rural *hukou*
- While rural people have been allowed to work in cities since the 1980s, most of the ‘migrant peasant workers’ do difficult, dirty and dangerous (3-D) jobs shunned by urbanites, with many jobs closed to them in Beijing, Shanghai and other big cities
- Migrant peasant workers still have no access to benefits enjoyed by urbanites such as unemployment and health insurance, schooling
- Migrants live in poor dwelling in the outskirts of cities
- Many leave children to the care of grand-parents and other relatives (three left-behinds: children, wives, parents)
- Around half of the 1.37 billion Chinese people still live in the countryside
- But many of the 280 million migrant peasant workers have become skilled workers, cashiers, receptionists, technicians, businesspersons, entrepreneurs or even professionals and managers. They are *de jure* peasants but *de facto* ‘the mainstay of China’s working class’. For mobility research, we use current or last main job, rather than politically ascribed ‘status’, as indicator of class.¹²

1978ff
1977/8

Reform and Open-up (Deng Xiaoping's era)
restoration of national entrance examinations for college and university admissions

China's GDP since 1978

CHINA'S GDP

China's GDP has risen from less than \$150 billion in 1978 to \$8,227 billion in 2012.

BILLIONS OF U.S. DOLLARS

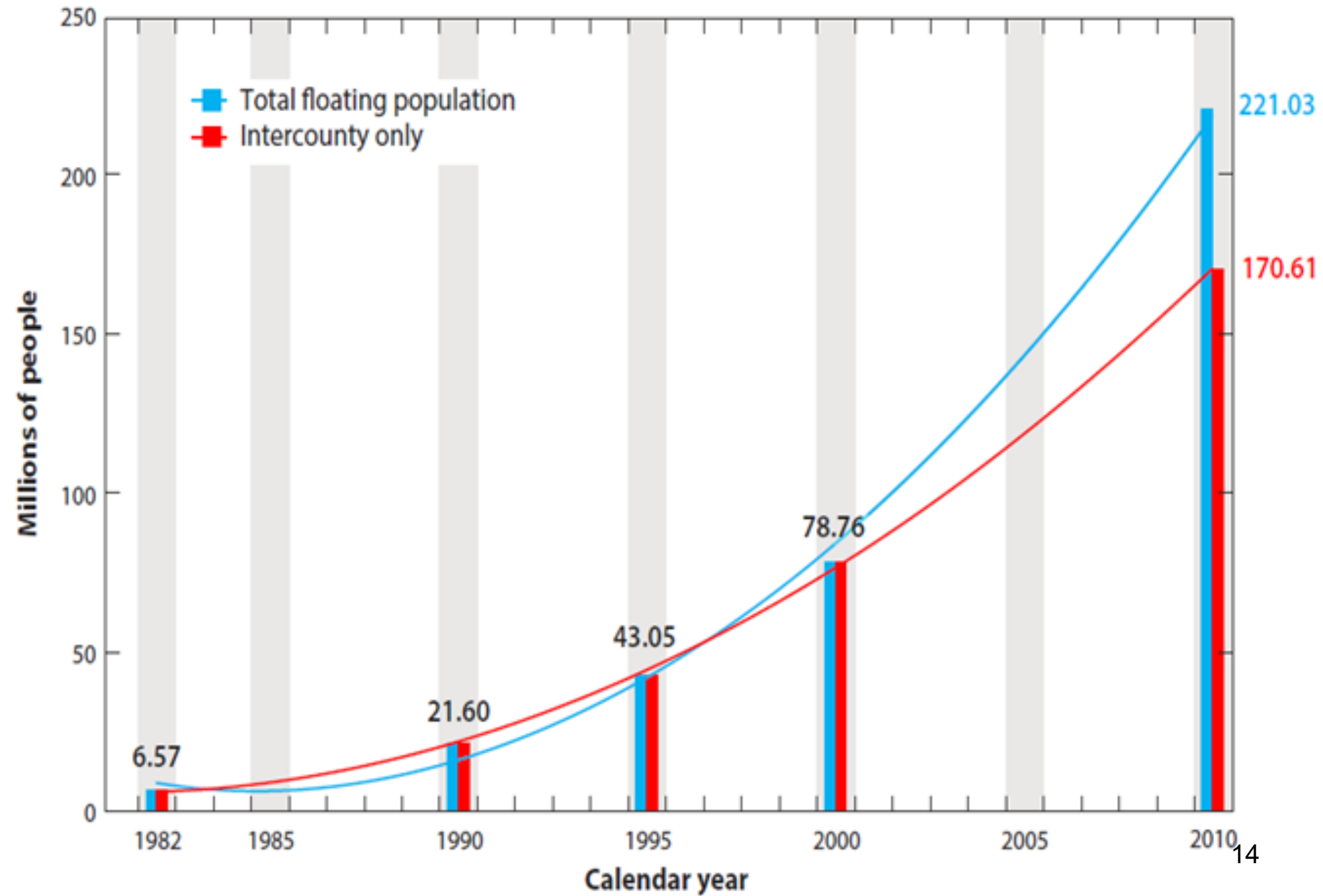


SOURCE: WORLD BANK

HBR.ORG

Migrant peasant workers (floating population)

282m in 2016

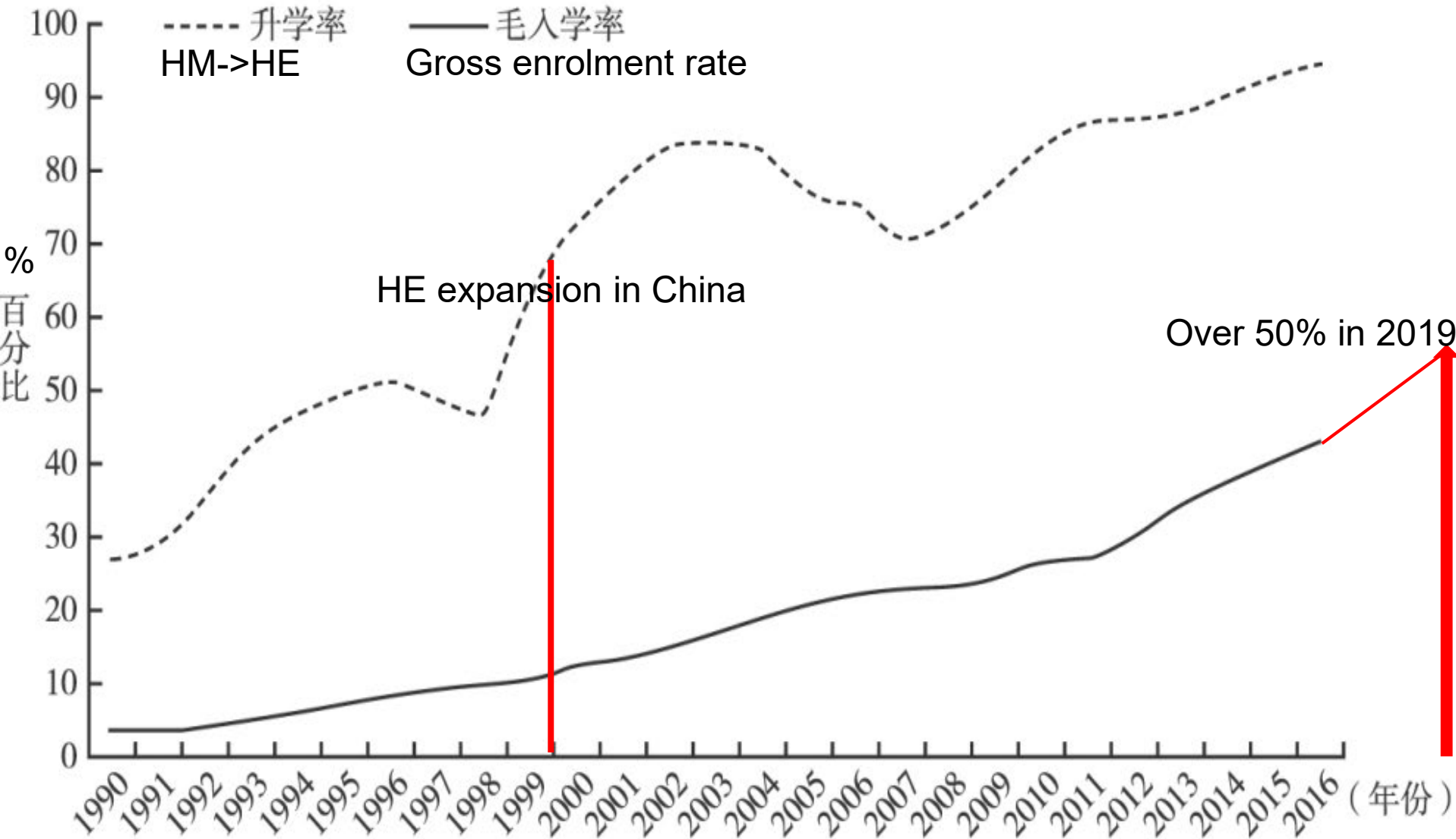


Chinese people get more education

(3000 universities/colleges, 39m university students in 2019;
8.5m under-, post-, and PhD students graduated in 2017 alone)

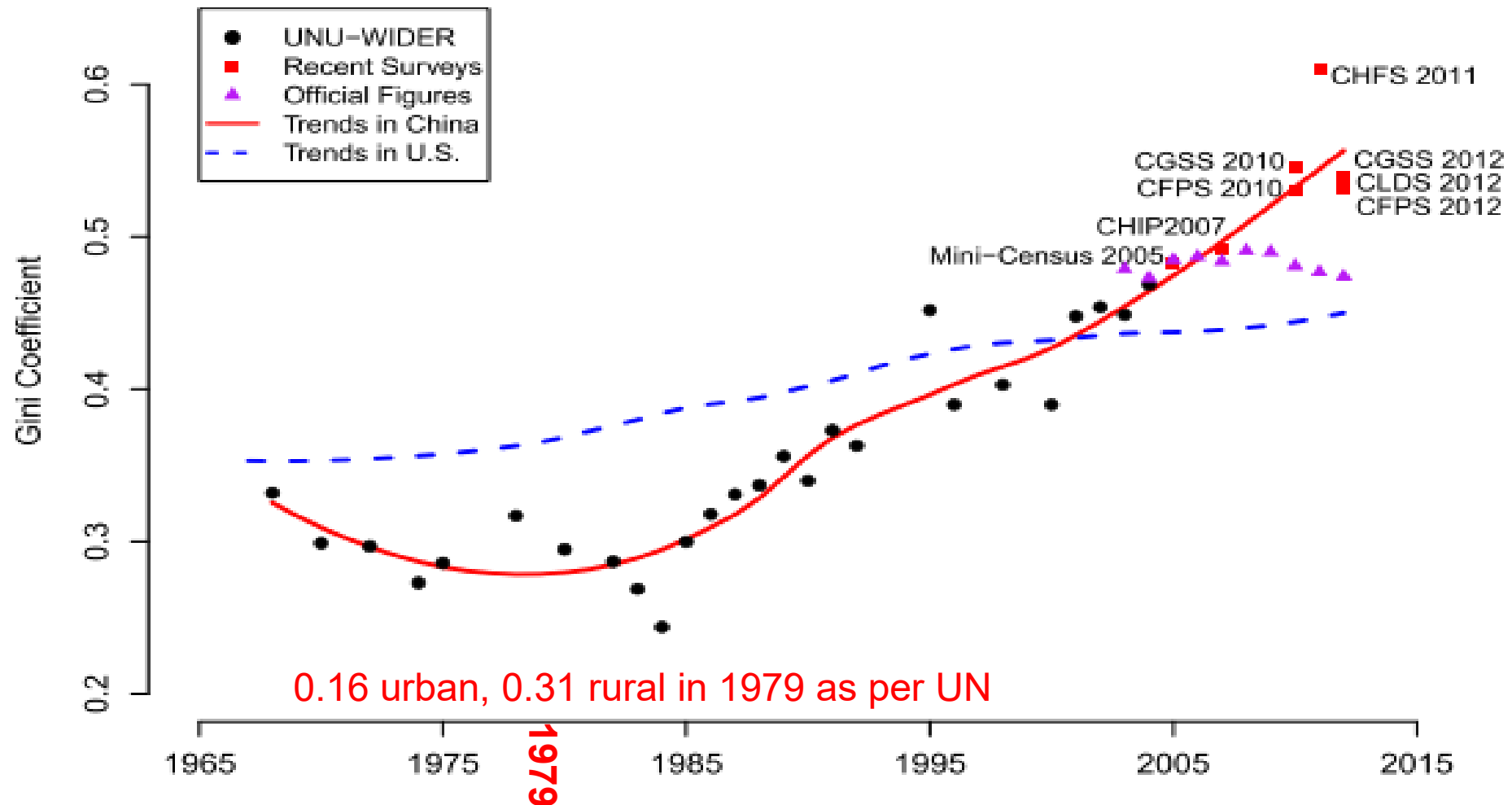


HE expansion



China more unequal than the USA

(UNU-WIDER: World Institute for Development Economics Research of the United Nations University)



Research questions

- What are the patterns and trends of class mobility like in contemporary China?
- Are there more opportunities benefitting parental and respondent's generations, for men and women alike?
- Are mobility rates (including the upward & downward components) in China similar to or smaller than those in developed countries like Britain?
- Are the opportunities unleashed by the reforms equally shared by people irrespective of their family backgrounds and by both sexes alike?
- Is China getting more equal or more unequal?

Existing research

- Cheng, Y. and Dai, J. (1995) 'Intergenerational mobility in modern China', *European Sociological Review*, 11(1):17-35 ['hand-picked' data from six provinces, *Social Structure in Modern China Survey* (SSMCS) collected in 1988, aged 30-59]
- Wu, X. and Treiman, D. (2007) 'Inequality and equality under Chinese socialism: The Hukou system and intergenerational occupational mobility', *American Journal of Sociology* 113(2): 415-445. [LHSC 1996, national, men aged 20-55]
- Chen, M. (2013) 'Intergenerational mobility in contemporary China'. *Chinese Sociological Review*, 45(4): 29-53. [CGSS 2005 2006, age 18-69 as per CGSS adult design]
- Li, Y., Zhang, S., Kong, J. (2015) 'Social mobility in China and Britain: a comparative study', *International Review of Social Research*, 5(1): 20-34. [CGSS 2005 2006 2008 2010, 25-69]
- Li, Y. and Zhao, Y. 'Double Disadvantages— A Study of Ethnic and Hukou Effects on Class Mobility in China (1996-2014)' *Social Inclusion*, 5(1), 5–19. [LHSC, CGSS 2005-2013, CLDS, 2012, 14; men, 16-65]
- A few in Chinese, by Lu Xueyi; Li Qiang; Liu Xin; Li Lulu & Zhu Bing

Data

Harmonised variables on parental class at R age 14-18, and R's class in current or last main job, aged 18-65, N=38002

- China General Social Survey (CGSS, 2010, 2011, 2012, 2013, 2015): covers all 31 provinces and municipalities in mainland China

Class categories for China's mobility research

Parental (dominance) and respondent's class

- 1 Professional-managerial salariat (I+II)
- 2 Intermediate class: routine non-manual, own-account (self-employed), and manual supervisory (III-V)
- 3 Skilled manual (VI)
- 4 Semi or unskilled manual (VIIa)
- 5 Peasant (agricultural workers) (VIIb)

A semi-cohort approach

- Cohort 1, 1945-1957, education and early career before Cultural Revolution (1966-1976). The country was poor with only 1.5% being able to receive degree-level education.
- Cohort 2, 1958-1967, education during Cultural Revolution, most HE institutions shut, 20m urban youths sent to the countryside to ‘receive re-education by the poor and lower-middle peasants’ as Chairman Mao instructed, only 3.6% had degree-level education.
- Cohort 3, 1968-1980, education and early careers after ‘open-up and reforms’ policy in 1978. Nearly 9.4% had degree-level education.
- Cohort 4, born after 1981, turning 18 in 1999, direct beneficiary of the ‘deep reforms’ and the HE expansion policies, with 20.9% having degrees. In 1998, the gross enrolment rate at HE was 9.8% with a student body of 2.06m. In 2019, the gross enrolment rate has surpassed 50%.
- It is acknowledged that no specific birth year could precisely reflect the impacts of the major socio-political policies in China, but we believe that the one here designed is fairly accurate.

Analytical strategy

- **Absolute mobility**

- Changing class structure

- **Relative mobility**

- Relative mobility at a global level (overall trends)
- Relative mobility at a local level (growing or declining class saliences)
- Social distances in class competition overall
- Social distances in access to the salariat (gross and net effects)

Table 1 Parental and male and female respondents' class distribution, column percentage
(N=18,732 and 19,270 for men and women respectively)

	Parents	Men	Women
Class			
Salariat	14.0	20.1	16.3
Intermediate	10.4	19.2	24.1
Skilled manual	8.5	11.0	7.0
Unskilled manual	6.8	18.6	12.4
Agricultural	60.4	31.1	40.2
Dissimilarity index		28.7	22.1
Net difference index		26.5	15.6

Summary indices for distributions

Index of dissimilarity (for gross mobility)

$$ID = 0.5 \sum_{i=1}^N |X_i - Y_i|$$

Net Difference Index (for social advancement or decline)

$$\begin{aligned} ND_{xy} &= \text{pr}(X > Y) - \text{pr}(Y > X) \\ &= \sum_{i=2}^n \chi_i \left(\sum_{j=1}^{n-i-1} \gamma_j \right) - \sum_{i=2}^n \gamma_i \left(\sum_{j=1}^{n-i-1} \chi_j \right) \end{aligned}$$

Figure 1 Distribution of parental and men's and women's class positions by cohort, cumulative percentage

Parental class



Figure 1 Distribution of parental and men's and women's class positions by cohort, cumulative percentage

Men's class

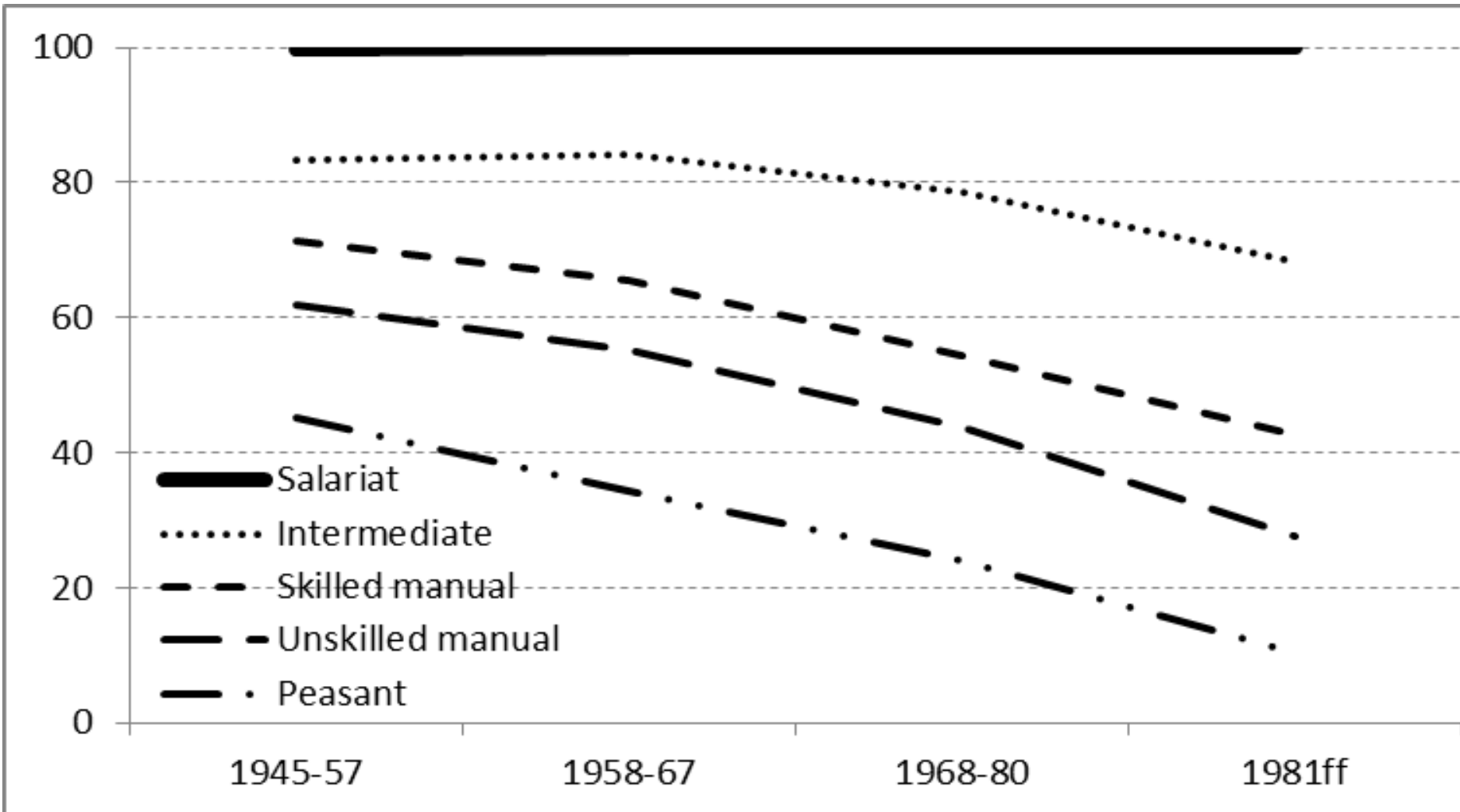


Figure 1 Distribution of parental and men's and women's class positions by cohort, cumulative percentage

Women's class

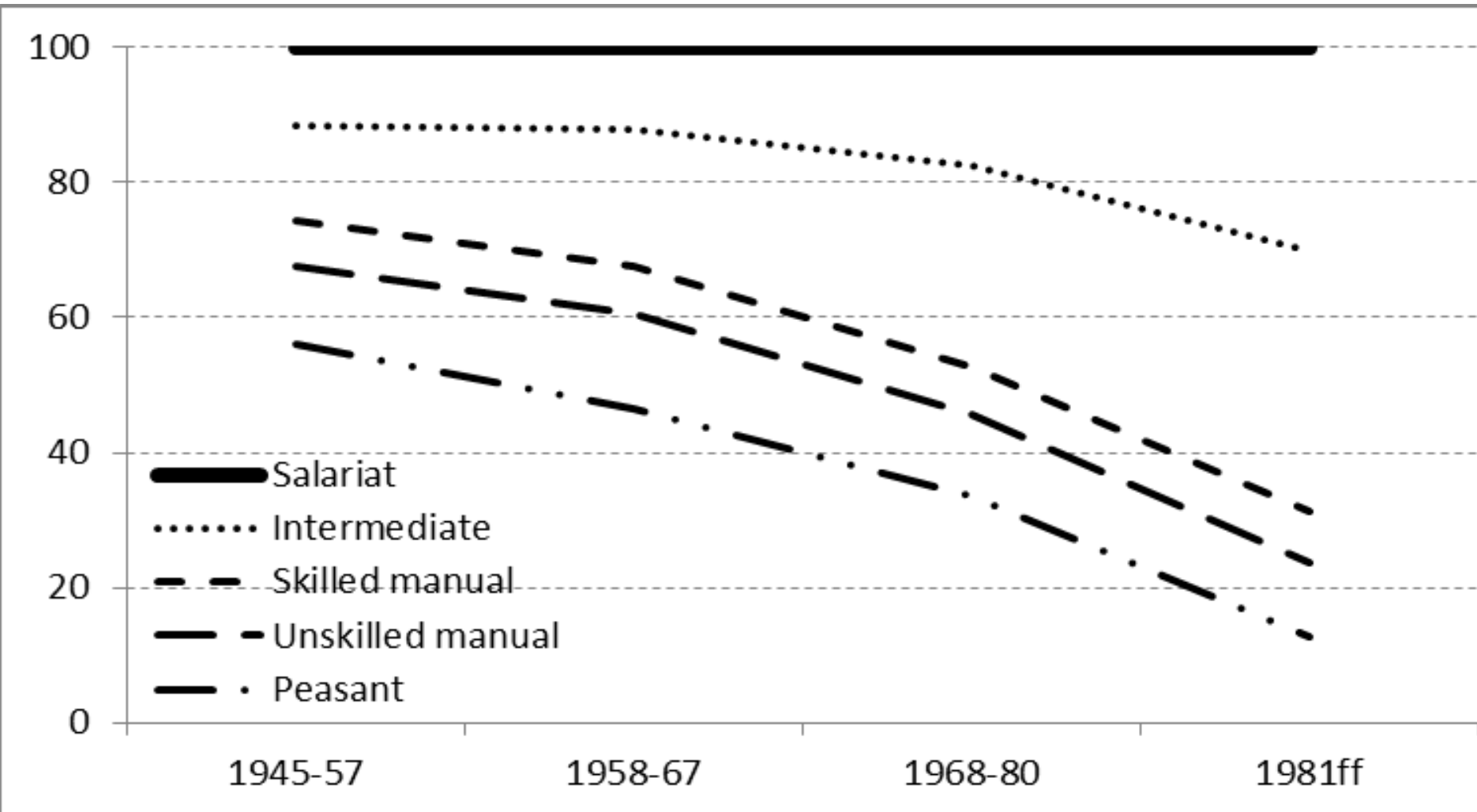
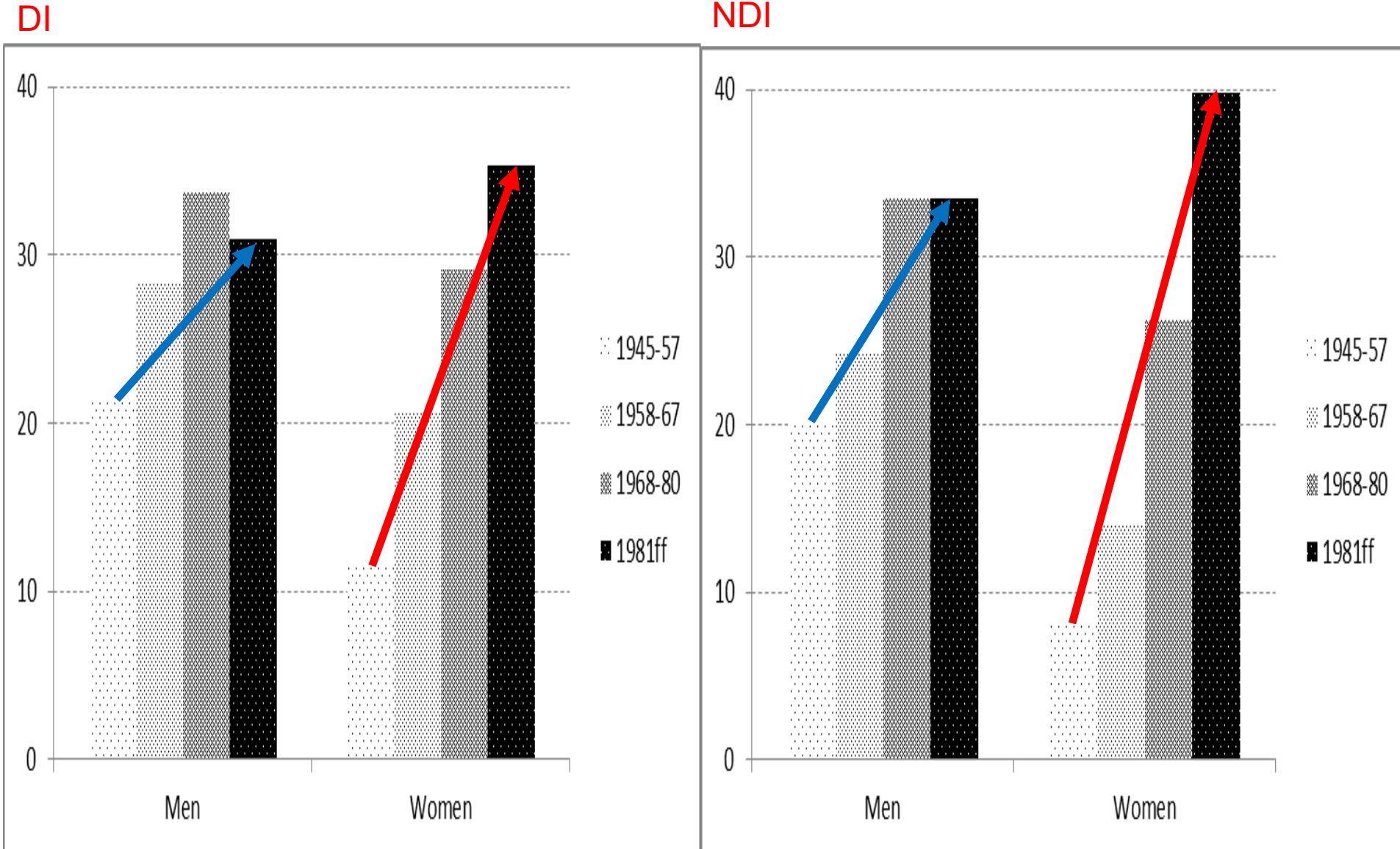


Figure 2 Dissimilarity index (DI) and net dissimilarity index (NDI): women at a faster pace in mobility and advancement than men



Class distribution by class origin (row %): men

Parental class	Respondent's class					N
	1	2	3	4	5	
Men						
1 Salariat	43.2	22.0	9.1	14.6	11.1	2,605
2 Intermediate	31.5	29.1	12.3	20.1	7.1	1,972
3 Skilled manual	24.4	26.5	19.6	23.0	6.5	1,652
4 Unskilled manual	22.5	22.3	15.6	33.7	5.8	1,363
5 Agricultural	11.9	15.4	9.4	16.8	46.6	11,140
(All)	20.1	19.2	11.0	18.6	31.1	

Wu & Treiman 2007

Class distribution by class origin (row %): women

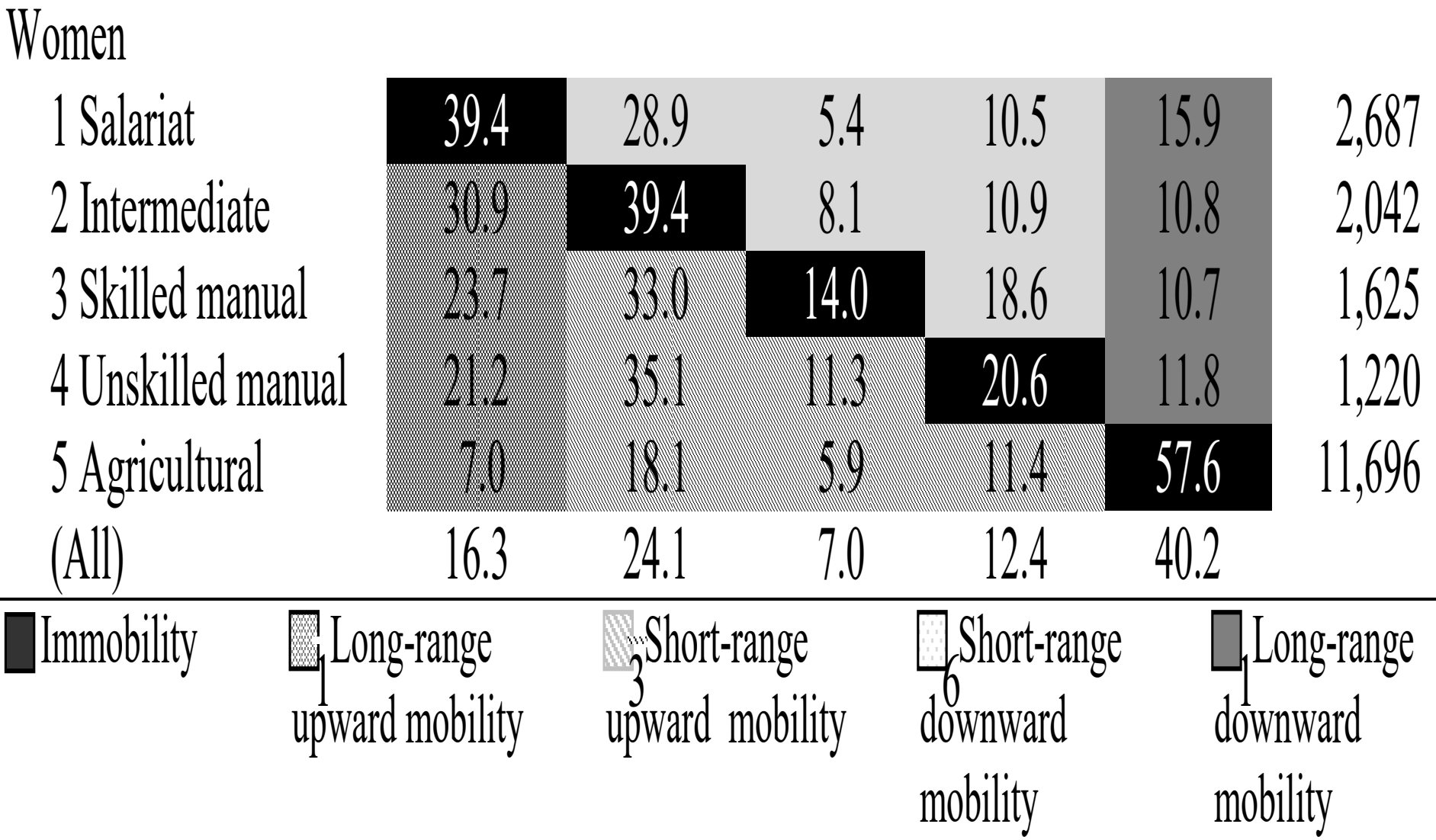
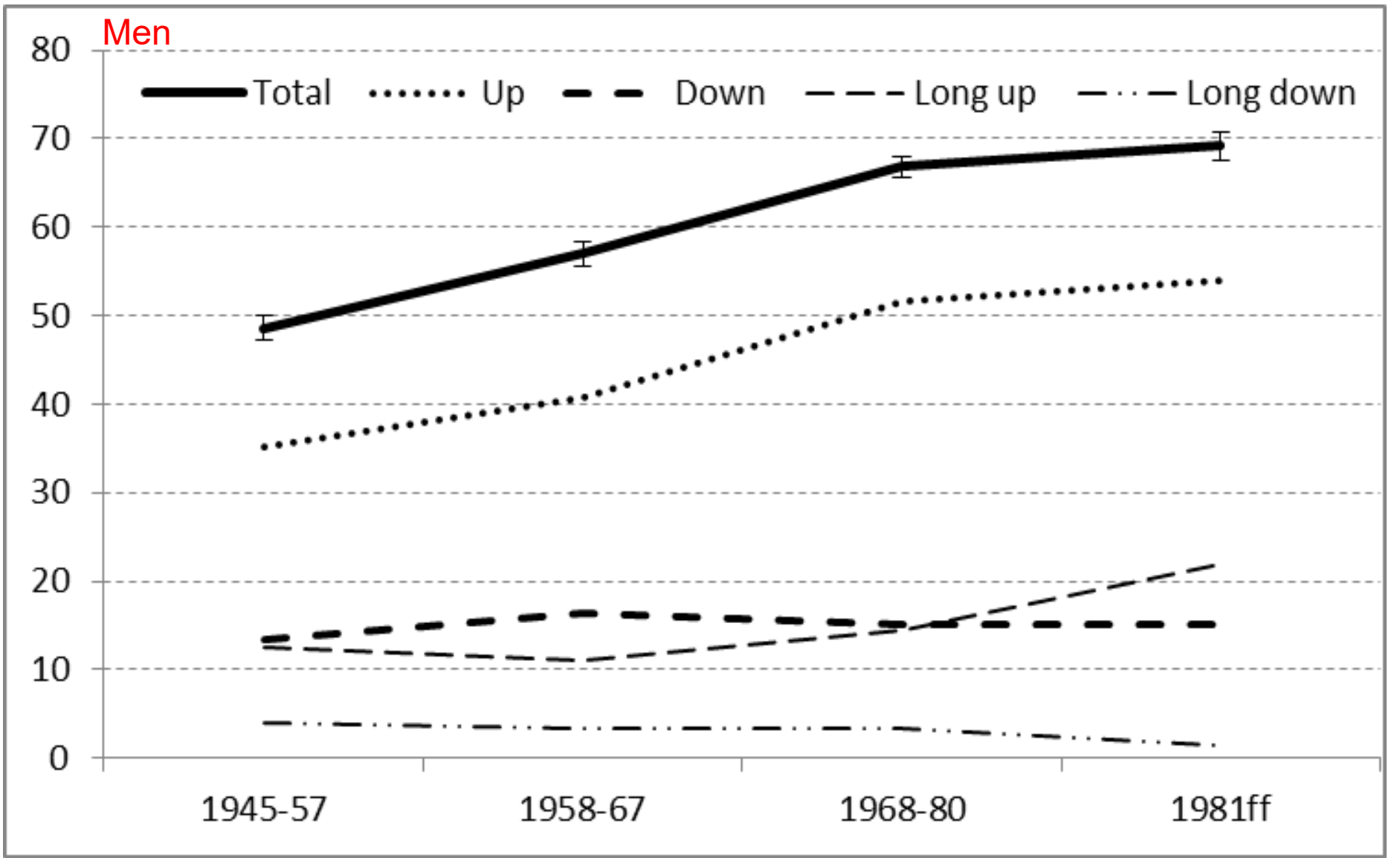
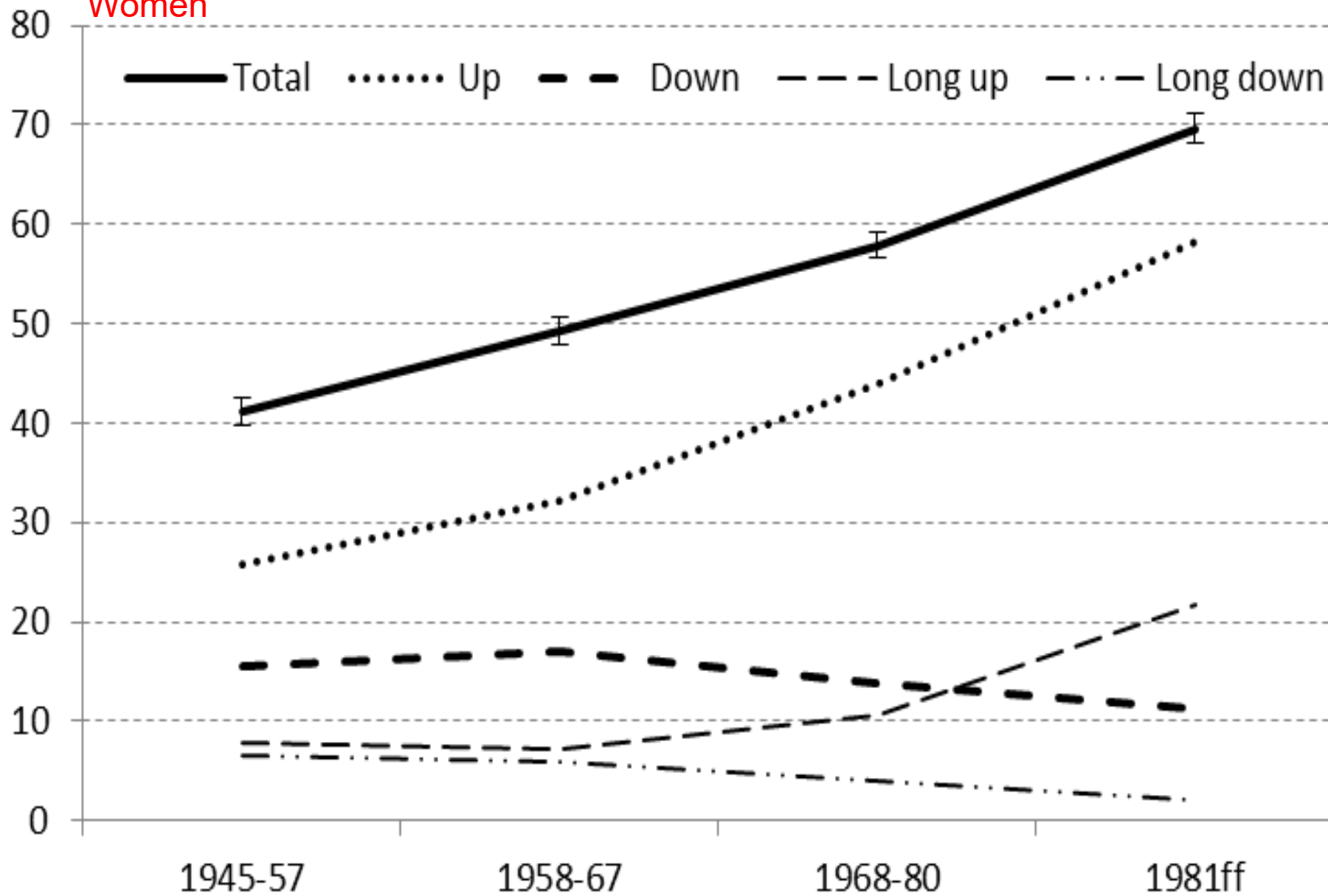


Figure 3 Total, upward, downward, long-range upward, and long-range downward mobility by cohort and sex



Women



Relative mobility

Veil of ignorance

Odds ratios	Total number of odds ratios in a mobility table
$\frac{f_{11}/f_{12}}{f_{21}/f_{22}}$	$\frac{(k^2 - k)^2}{4}$

Example

Period	1	2	3	4
Data	$\frac{50/50}{50/50}$	$\frac{60/40}{40/60}$	$\frac{70/30}{30/70}$	$\frac{80/20}{20/80}$
Odds ratios	1	2.25	5.44	16
Log odds <small>优比</small>	0	0.81	1.69	2.77

The greater the odds ratio rise above 1 (or log odds above 0), the stronger the association between parental and own class, hence the less openness (fluidity).

Detecting global change UNIDIFF Models for relative mobility

1 Baseline model (conditional independence)

$$\log F_{ijk} = \mu + \lambda_i^O + \lambda_j^D + \lambda_k^Y + \lambda_{ik}^{OY} + \lambda_{jk}^{DY}$$

2 Constant/Common Social Fluidity model (CnSF/CmSF)

$$\log F_{ijk} = \mu + \lambda_i^O + \lambda_j^D + \lambda_k^Y + \lambda_{ik}^{OY} + \lambda_{jk}^{DY} + \lambda_{ij}^{OD}$$

3 Log multiplicative or uniform difference (unidiff) model

$$\log F_{ijk} = \mu + \lambda_i^O + \lambda_j^D + \lambda_k^Y + \lambda_{ik}^{OY} + \lambda_{jk}^{DY} + \lambda_{ij}^{OD} + \beta_k X_{ij}$$

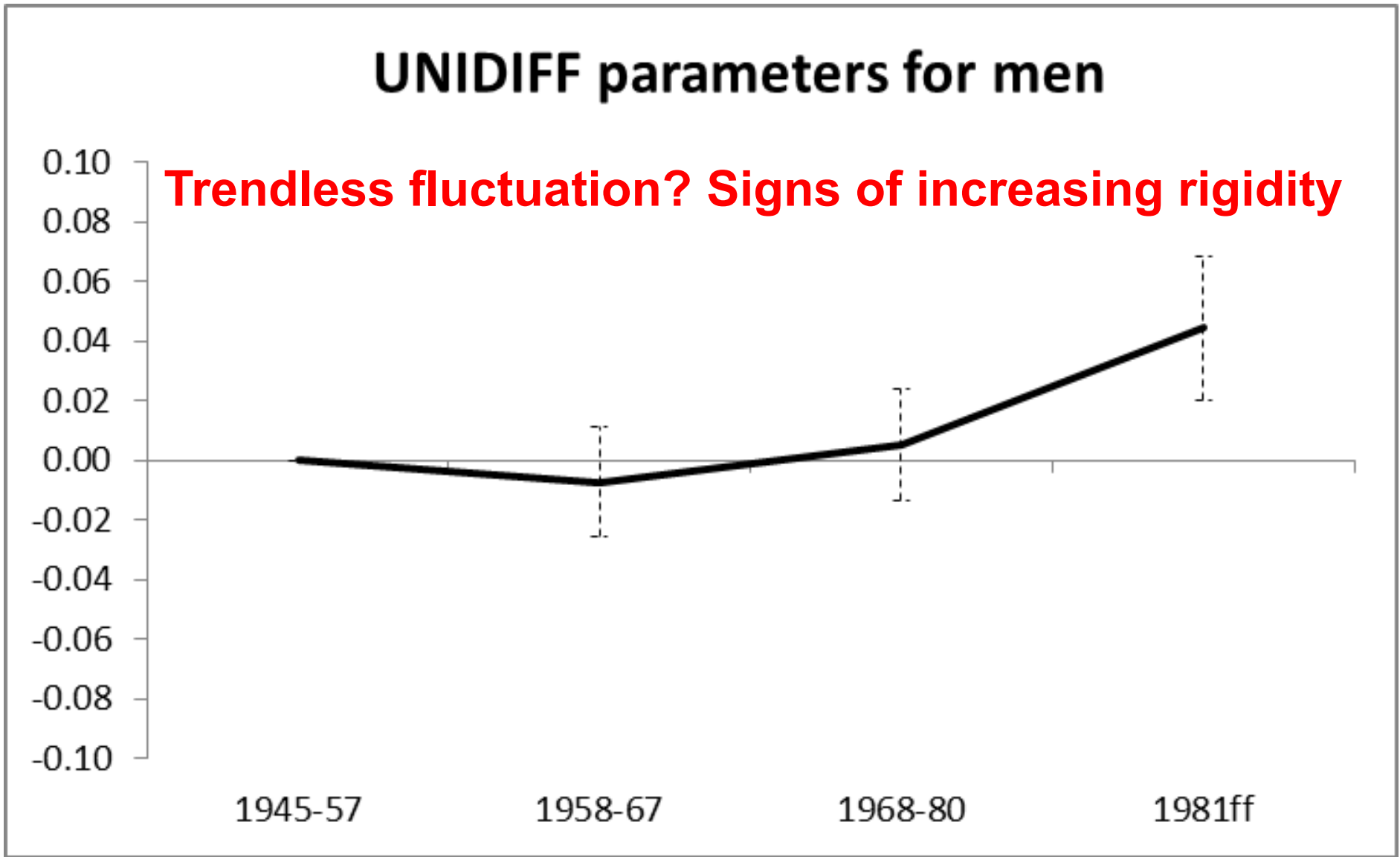
Table 3 Results of fitting the conditional independence (Cond.ind.), constant social fluidity (CnSF) and uniform difference (UNIDIFF) models to mobility tables for men and women (N=19,511 and 18,387 respectively), by birth cohorts

Model	G^2	df	p	RG^2	BIC	Δ
Men						
1. Cond. ind.	4227.6	64	0.00	0.0	3595.4	18.6
2. CnSF	197.8	48	0.00	95.3	-276.3	3.2
3. UNIDIFF	179.4	45	0.00	95.8	-265.1	2.9
2. – 3.	18.4	3	0.00			
Women						
4. Cond. ind.	4835.9	64	0.00	0.0	4207.5	21.2
5. CnSF	129.4	48	0.00	97.3	-341.9	2.5
6. UNIDIFF	119.6	45	0.00	97.5	-322.3	2.4
5. – 6.	8.8	3	0.03			

Note:

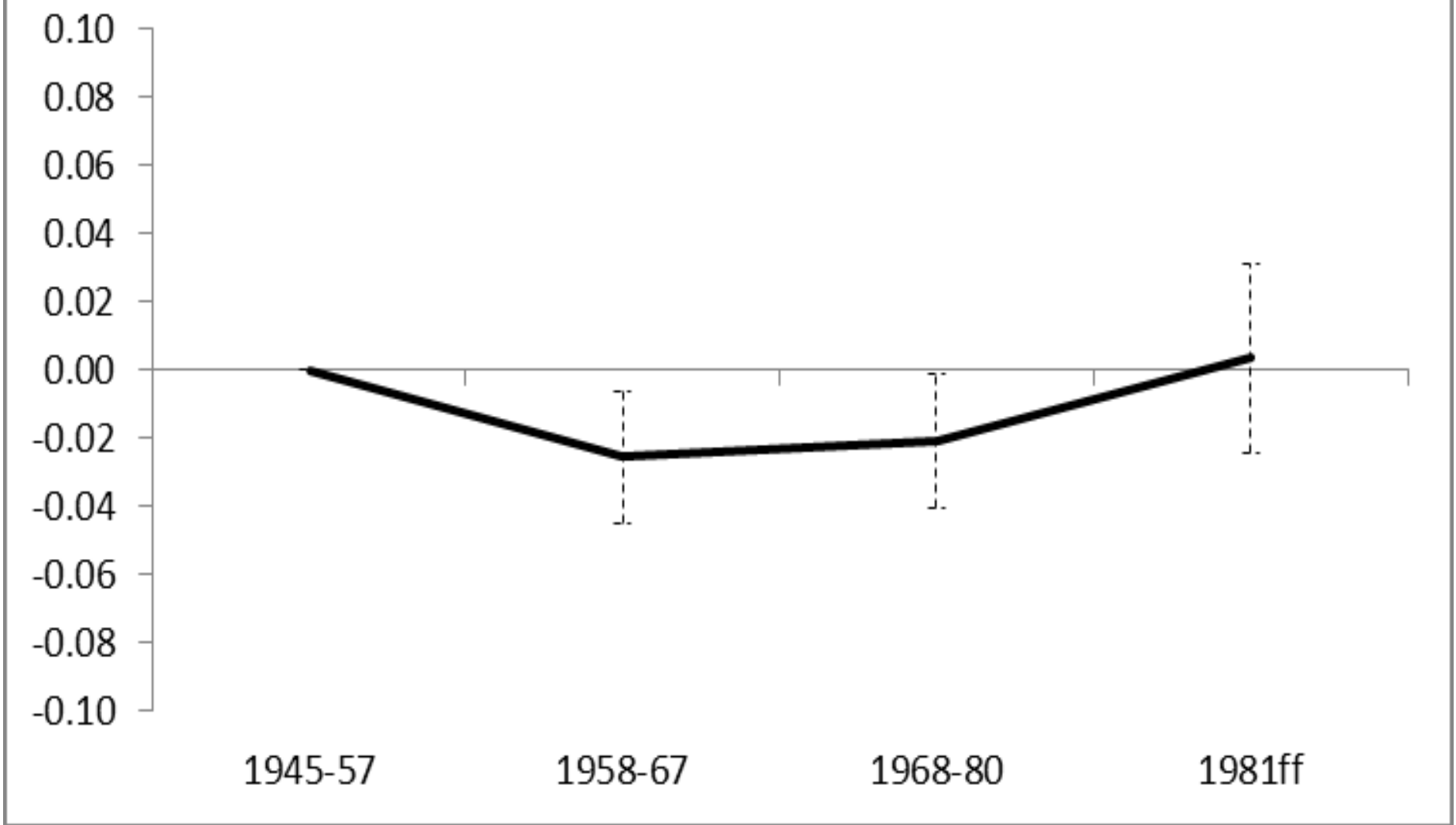
1. RG^2 = Percentage reduction in G^2 ; Δ = Percentage of cases misclassified.

Trends of relative mobility for men



Trends of relative mobility for women

UNIDIFF parameters for women



Detecting local change symmetrical odds ratios

Table 4 Symmetrical odds ratios: the rows in each set refers to the four cohorts (C1-C4) respectively

		2	3	4	5
Men		Intermediate	Skilled manual	Unskilled manual	Agricultural
1 Salarial	(C1)	1.51	2.73	6.25	11.28
	(C2)	2.06	3.92	3.29*	14.84
	(C3)	1.69	2.77	3.62	13.22
	(C4)	2.37	6.63*	5.65	34.63**
2 Intermediate	(C1)		1.15	2.05	13.81
	(C2)		1.89	2.53	8.59
	(C3)		1.53	1.14	6.74*
	(C4)		2.16	2.45	20.22
3 Skilled manual	(C1)			1.75	23.44
	(C2)			2.27*	25.38
	(C3)			0.98	5.23***
	(C4)			2.24	6.16***
4 Unskilled manual	(C1)				32.18
	(C2)				28.95
	(C3)				3.95***
	(C4)				9.54**

Detecting local change symmetrical odds ratios

Women					
1 Salarial	(C1)	1.45	3.33	3.41	22.98
	(C2)	1.55	4.52	3.57	21.03
	(C3)	2.29	5.07	2.62	23.57
	(C4)	1.89	3.47	7.02	17.95
2 Intermediate	(C1)		1.77	2.25	17.17
	(C2)		<i>1.51</i>	<i>1.41</i>	8.58**
	(C3)		1.99	<i>1.48</i>	8.52**
	(C4)		2.20	2.74	14.69
3 Skilled manual	(C1)			<i>1.01</i>	16.75
	(C2)			<i>1.36</i>	19.57
	(C3)			<i>1.34</i>	7.15**
	(C4)			<i>1.33</i>	9.95
4 Unskilled manual	(C1)				19.39
	(C2)				10.37 ⁺
	(C3)				3.30***
	(C4)				3.13***

Notes:

- All odds ratios are calculated controlling for year of survey and those in italics are not significant at the 0.05 level. Significance tests are conducted for cohort differences in the odds ratios, with cohort 1 as reference: ⁺ <0.10; * p<0.05; ** p<0.01; *** p<0.001.

Figure 5 Ordinal logit models by cohort and gender. Class origin effects over cohorts, controlling for survey effects.

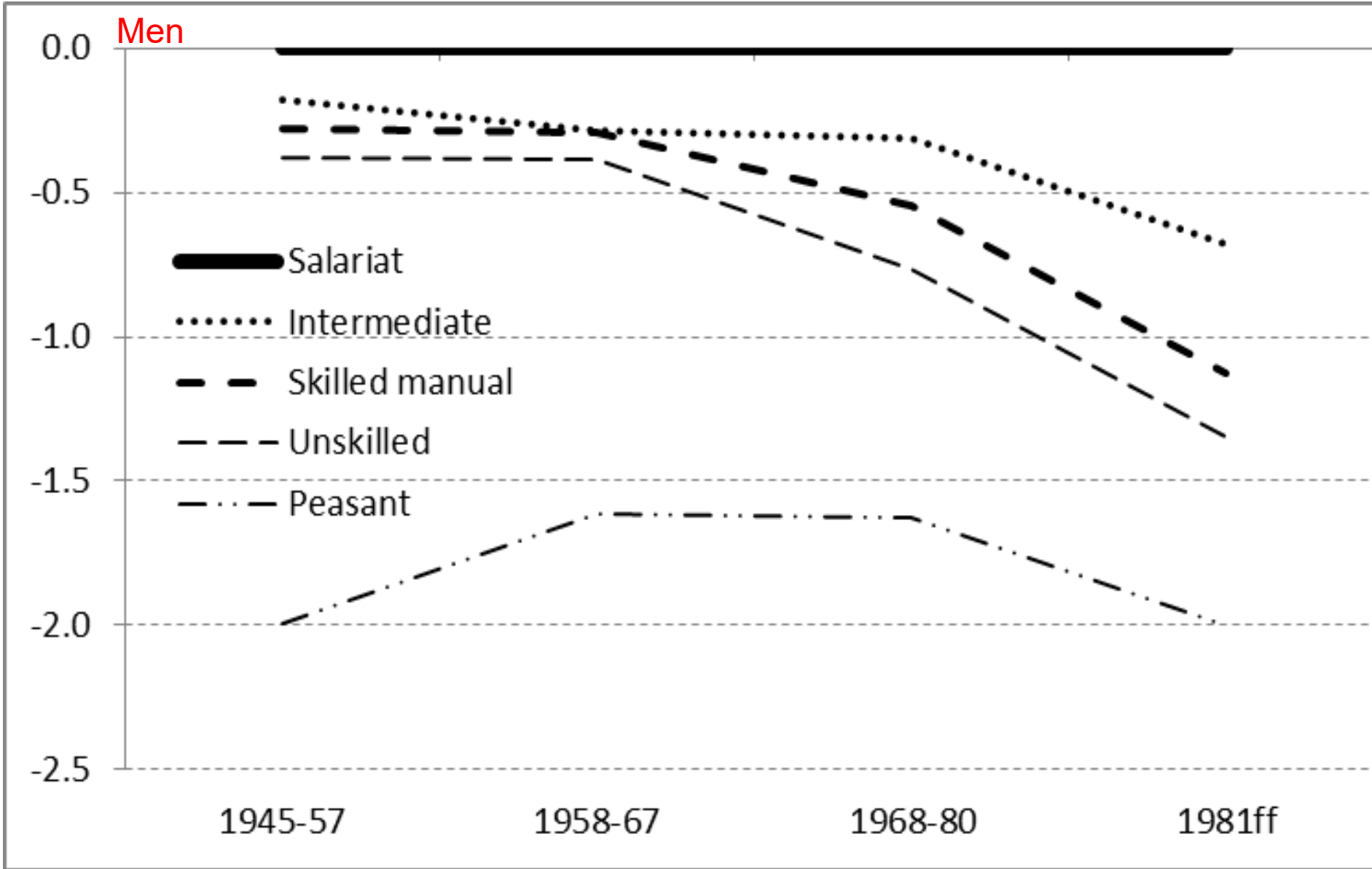


Figure 5 Ordinal logit models by cohort and gender. Class origin effects over cohorts, controlling for survey effects.

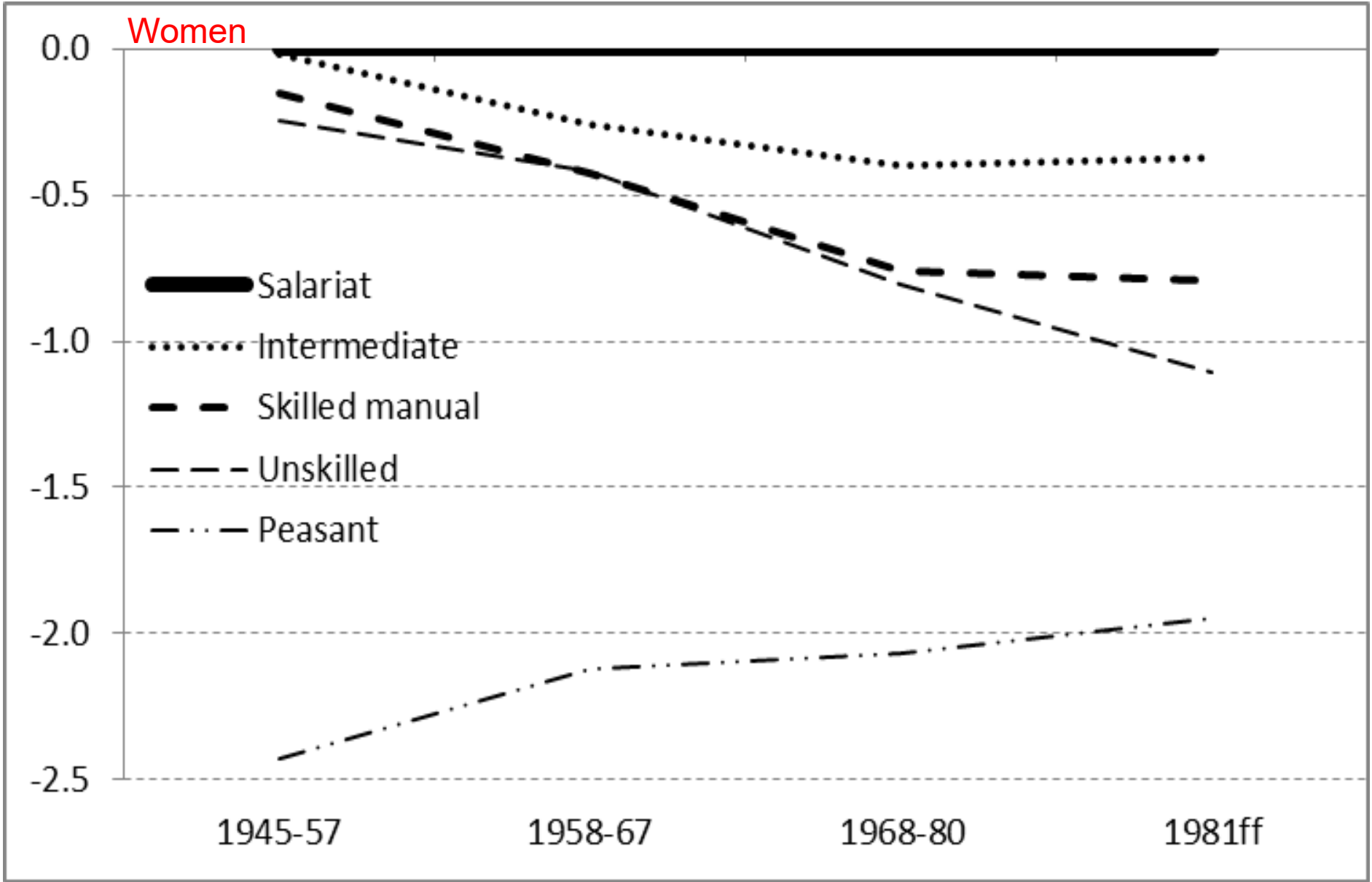


Figure 6 Average marginal effects (AME) of gross parental class on respondents' access to the salariat by sex and cohort, controlling for survey year

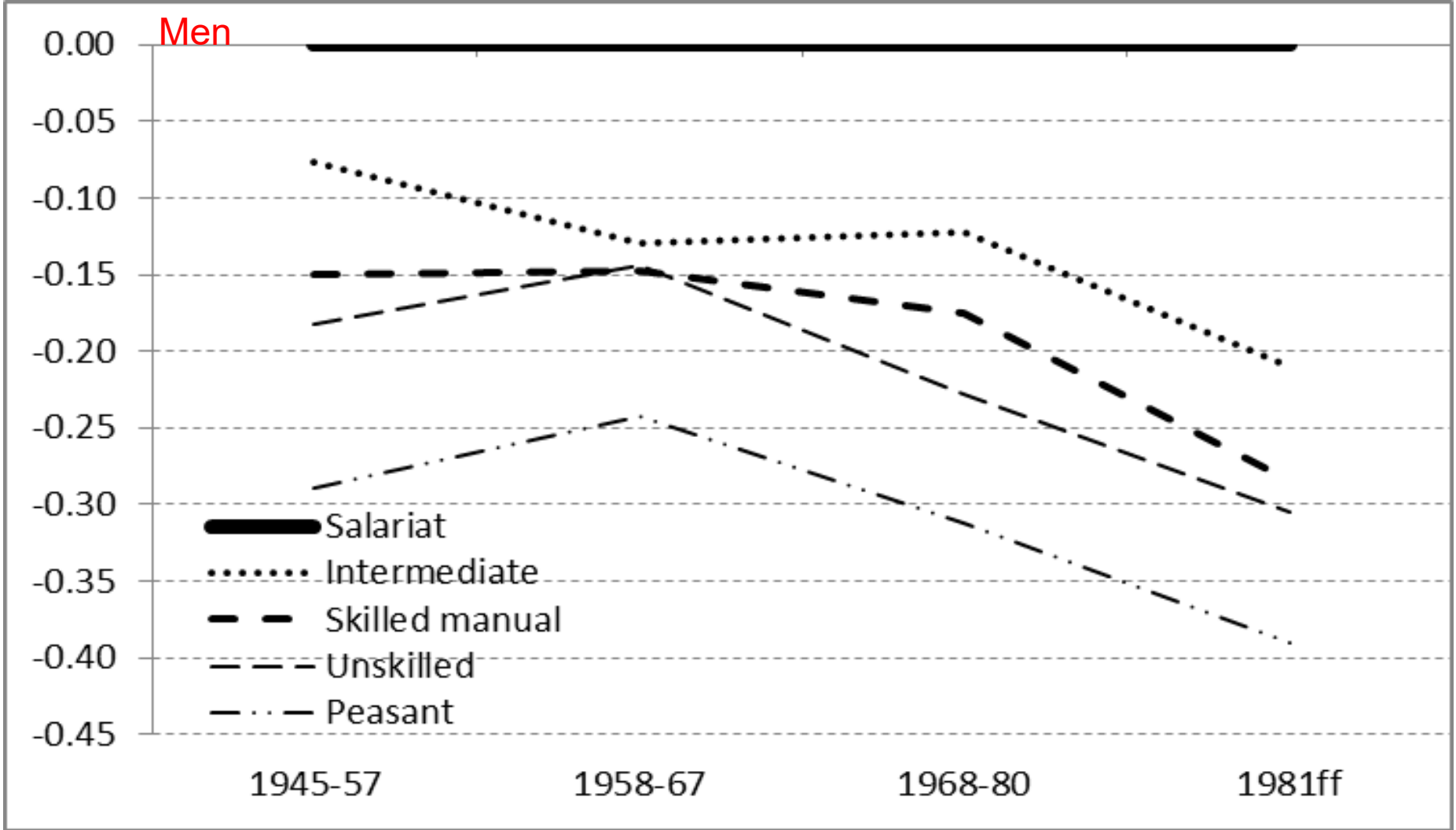


Figure 6 Average marginal effects (AME) of gross parental class on respondents' access to the salariat by sex and cohort, controlling for survey year

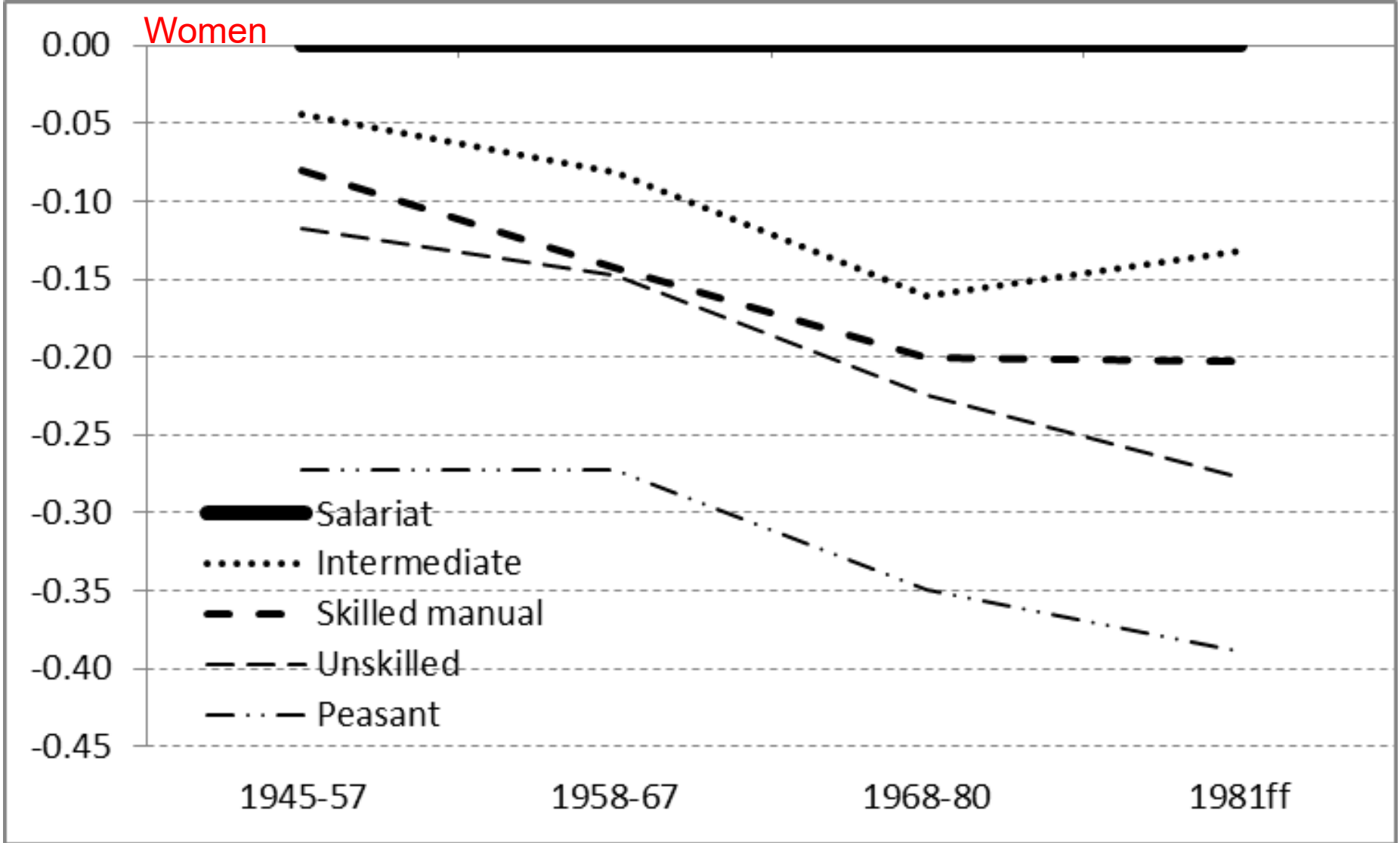


Figure 7 Access to degree-level education by parental class, sex and cohort

Men Women

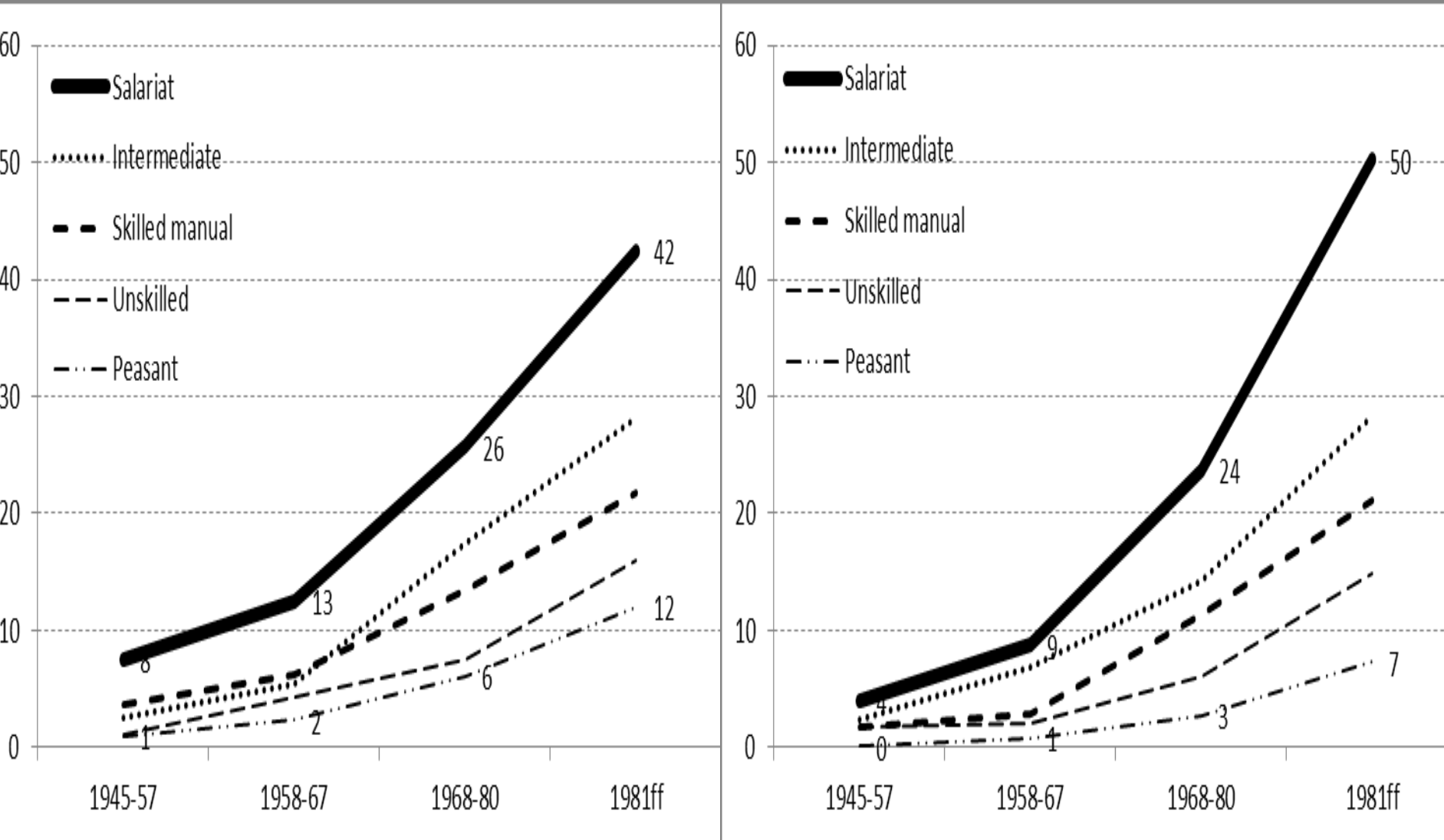
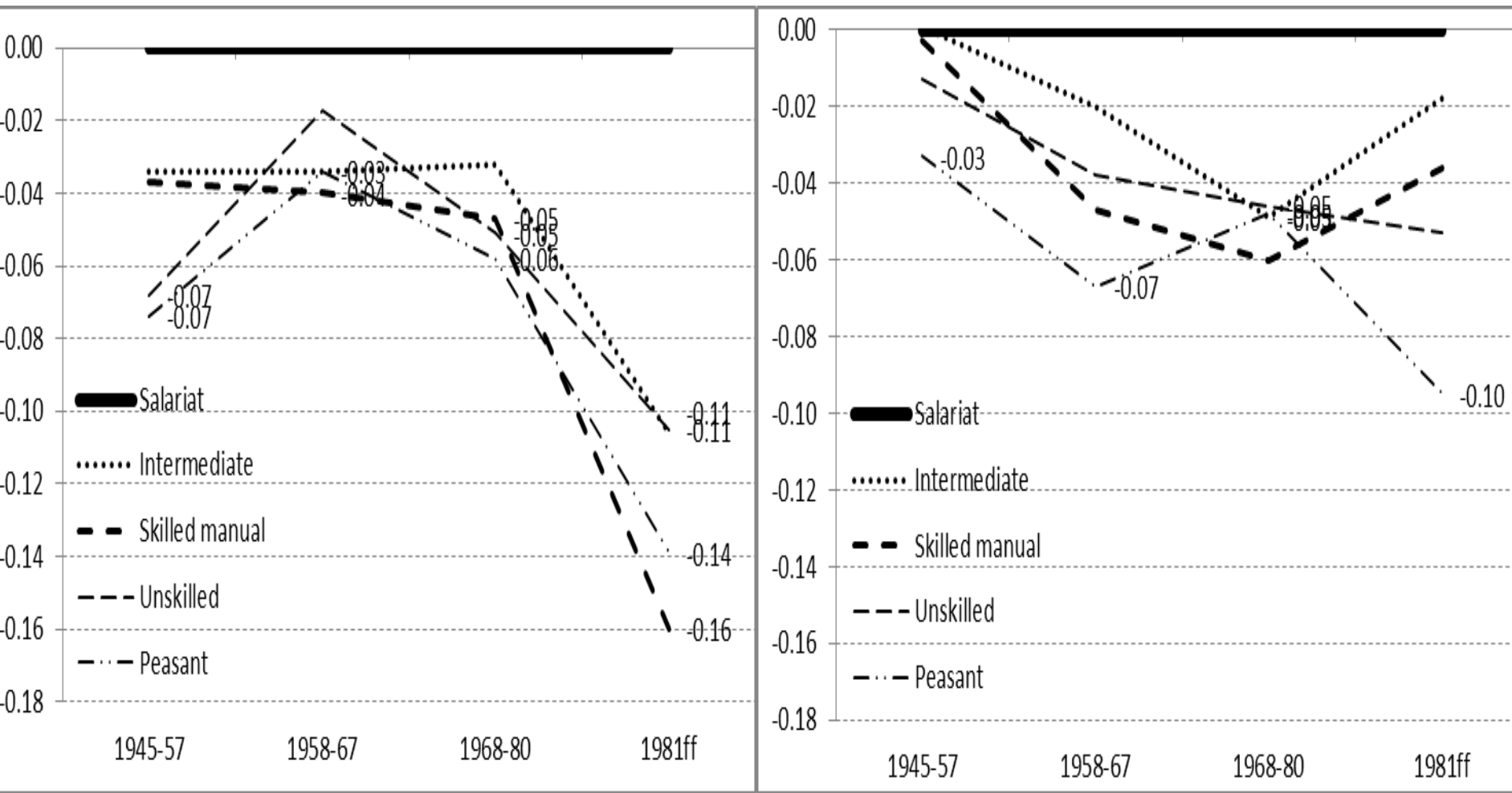


Figure 8 Average marginal effects (AME) of net parental class on respondents' access to the salariat by sex and cohort

Men

Women



1 Controlling for parental and R education, father's, mother's and R CCP membership, provincial level GDP in the year of survey, respondent's age, and survey year. 46

2 Data showing significant effects from salariat parents are presented in the figure.

Summary

- 40 years of reform -> a more upgraded class structure -> greater extent of social mobility in absolute terms -> more upward than downward mobility, more for men than for women, but women catching up
- Relative mobility: men's mobility chances have deteriorated, with less social fluidity for the youngest cohort
- Class competition at top and bottom ends became fiercer but the boundary between the working class and peasants became blurred
- Class gaps in degree education became larger, and competition in overall occupational attainment, in the gross effects and even in the net effects on salariat access became stronger for the youngest cohort
- More opportunities, more competition, less fluidity
- Rising tides did not lift all boats together

Thank you!

Criticisms and suggestions welcome

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