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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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


• **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
China is a big country with a long history.
Between ‘heaven and earth’?

Shanghai
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.
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

**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 became 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.
1977/8  1978ff  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 has risen from less than $150 billion in 1978 to $8,227 billion in 2012.

SOURCE WORLD BANK  HBR.ORG
Migrant peasant workers (floating population)

282m in 2016
Combining the strengths of UMIST and The Victoria University of Manchester

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 in China

On the right axis

On the left axis
HE expansion

HM->HE Gross enrolment rate

HE expansion in China

Over 50% in 2019
China more unequal than the USA

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

0.16 urban, 0.31 rural in 1979 as per UN

17
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


• 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

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 supervisorial (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 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)

<table>
<thead>
<tr>
<th>Class</th>
<th>Parents</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salariat</td>
<td>14.0</td>
<td>20.1</td>
<td>16.3</td>
</tr>
<tr>
<td>Intermediate</td>
<td>10.4</td>
<td>19.2</td>
<td>24.1</td>
</tr>
<tr>
<td>Skilled manual</td>
<td>8.5</td>
<td>11.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Unskilled manual</td>
<td>6.8</td>
<td>18.6</td>
<td>12.4</td>
</tr>
<tr>
<td>Agricultural</td>
<td>60.4</td>
<td>31.1</td>
<td>40.2</td>
</tr>
</tbody>
</table>

Dissimilarity index  
Net difference index
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)

\[ ND_{xy} = \text{pr}(X > Y) - \text{pr}(Y > X) \]
\[ = \sum_{i=2}^{n} \chi_i (\sum_{j=1}^{n-i-1} \gamma_j) - \sum_{i=2}^{n} \gamma_i (\sum_{j=1}^{n-i-1} \chi_j) \]
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

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

Wu & Treiman 2007
### Class distribution by class origin (row %): women

<table>
<thead>
<tr>
<th>Class</th>
<th>Salariat</th>
<th>Intermediate</th>
<th>Skilled manual</th>
<th>Unskilled manual</th>
<th>Agricultural</th>
<th>(All)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Salariat</td>
<td>39.4</td>
<td>28.9</td>
<td>5.4</td>
<td>10.5</td>
<td>15.9</td>
<td>2,687</td>
</tr>
<tr>
<td>2 Intermediate</td>
<td>30.9</td>
<td>39.4</td>
<td>8.1</td>
<td>10.9</td>
<td>10.8</td>
<td>2,042</td>
</tr>
<tr>
<td>3 Skilled manual</td>
<td>23.7</td>
<td>33.0</td>
<td>14.0</td>
<td>18.6</td>
<td>10.7</td>
<td>1,625</td>
</tr>
<tr>
<td>4 Unskilled manual</td>
<td>21.2</td>
<td>35.1</td>
<td>11.3</td>
<td>20.6</td>
<td>11.8</td>
<td>1,220</td>
</tr>
<tr>
<td>5 Agricultural</td>
<td>7.0</td>
<td>18.1</td>
<td>5.9</td>
<td>11.4</td>
<td>57.6</td>
<td>11,696</td>
</tr>
<tr>
<td>(All)</td>
<td>16.3</td>
<td>24.1</td>
<td>7.0</td>
<td>12.4</td>
<td>40.2</td>
<td></td>
</tr>
</tbody>
</table>

**Immobility**

- Long-range upward mobility
- Short-range upward mobility
- Short-range downward mobility
- Long-range downward mobility
Figure 3 Total, upward, downward, long-range upward, and long-range downward mobility by cohort and sex.
Combining the strengths of UMIST and The Victoria University of Manchester
Combining the strengths of UMIST and The Victoria University of Manchester

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).

<table>
<thead>
<tr>
<th>Period</th>
<th>1</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>50/50</td>
<td>60/40</td>
<td>70/30</td>
<td>80/20</td>
</tr>
<tr>
<td>Odds ratios</td>
<td>1</td>
<td>2.25</td>
<td>5.44</td>
<td>16</td>
</tr>
<tr>
<td>Log odds</td>
<td>0</td>
<td>0.81</td>
<td>1.69</td>
<td>2.77</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Model</th>
<th>G²</th>
<th>df</th>
<th>p</th>
<th>RG²</th>
<th>BIC</th>
<th>Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Men</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Cond. ind.</td>
<td>4227.6</td>
<td>64</td>
<td>0.00</td>
<td>0.0</td>
<td>3595.4</td>
<td>18.6</td>
</tr>
<tr>
<td>2. CnSF</td>
<td>197.8</td>
<td>48</td>
<td>0.00</td>
<td>95.3</td>
<td>-276.3</td>
<td>3.2</td>
</tr>
<tr>
<td>3. UNIDIFF</td>
<td>179.4</td>
<td>45</td>
<td>0.00</td>
<td>95.8</td>
<td>-265.1</td>
<td>2.9</td>
</tr>
<tr>
<td>2. – 3.</td>
<td>18.4</td>
<td>3</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Cond. ind.</td>
<td>4835.9</td>
<td>64</td>
<td>0.00</td>
<td>0.0</td>
<td>4207.5</td>
<td>21.2</td>
</tr>
<tr>
<td>5. CnSF</td>
<td>129.4</td>
<td>48</td>
<td>0.00</td>
<td>97.3</td>
<td>-341.9</td>
<td>2.5</td>
</tr>
<tr>
<td>6. UNIDIFF</td>
<td>119.6</td>
<td>45</td>
<td>0.00</td>
<td>97.5</td>
<td>-322.3</td>
<td>2.4</td>
</tr>
<tr>
<td>5. – 6.</td>
<td>8.8</td>
<td>3</td>
<td>0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note:

1. rG² = Percentage reduction in G²; Δ = Percentage of cases misclassified.
Trends of relative mobility for men

Trendless fluctuation? Signs of increasing rigidity
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

<table>
<thead>
<tr>
<th>Men</th>
<th>2 Intermediate</th>
<th>3 Skilled manual</th>
<th>4 Unskilled manual</th>
<th>5 Agricultural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Salariat</td>
<td>1.51</td>
<td>2.73</td>
<td>6.25</td>
<td>11.28</td>
</tr>
<tr>
<td>(C1)</td>
<td>2.06</td>
<td>3.92</td>
<td>3.29*</td>
<td>14.84</td>
</tr>
<tr>
<td>(C2)</td>
<td>1.69</td>
<td>2.77</td>
<td>3.62</td>
<td>13.22</td>
</tr>
<tr>
<td>(C3)</td>
<td>2.37</td>
<td>6.63*</td>
<td>5.65</td>
<td>34.63**</td>
</tr>
<tr>
<td>(C4)</td>
<td>1.16</td>
<td>2.05</td>
<td>2.05</td>
<td>13.81</td>
</tr>
<tr>
<td>2 Intermediate</td>
<td>1.15</td>
<td>2.73</td>
<td>6.25</td>
<td>14.84</td>
</tr>
<tr>
<td>(C1)</td>
<td>1.89</td>
<td>2.53</td>
<td>8.59</td>
<td></td>
</tr>
<tr>
<td>(C2)</td>
<td>1.53</td>
<td>1.14</td>
<td>6.74*</td>
<td></td>
</tr>
<tr>
<td>(C3)</td>
<td>2.16</td>
<td>2.45</td>
<td>20.22</td>
<td></td>
</tr>
<tr>
<td>(C4)</td>
<td>1.75</td>
<td>2.27*</td>
<td>5.23***</td>
<td></td>
</tr>
<tr>
<td>3 Skilled manual</td>
<td>1.75</td>
<td>2.27*</td>
<td>5.23***</td>
<td></td>
</tr>
<tr>
<td>(C1)</td>
<td>2.27*</td>
<td>0.98</td>
<td>6.16***</td>
<td></td>
</tr>
<tr>
<td>(C2)</td>
<td>2.24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Unskilled manual</td>
<td>32.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(C1)</td>
<td>28.95</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(C2)</td>
<td>3.95***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(C3)</td>
<td>9.54**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(C4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Detecting local change symmetrical odds ratios

<table>
<thead>
<tr>
<th>Women</th>
<th>(C1)</th>
<th>(C2)</th>
<th>(C3)</th>
<th>(C4)</th>
<th>Odds Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Salariat</td>
<td>1.45</td>
<td>1.55</td>
<td>2.29</td>
<td>1.89</td>
<td>3.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22.98</td>
</tr>
<tr>
<td>2 Intermediate</td>
<td></td>
<td>1.77</td>
<td>1.51</td>
<td>1.99</td>
<td>2.25</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.17</td>
</tr>
<tr>
<td>3 Skilled manual</td>
<td></td>
<td>1.01</td>
<td>1.36</td>
<td>1.34</td>
<td>1.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16.75</td>
</tr>
<tr>
<td>4 Unskilled manual</td>
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<td>19.39</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.37</td>
</tr>
</tbody>
</table>

**Notes:**

1. 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

Men
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

- Salaried
- Intermediate
- Skilled manual
- Unskilled
- Peasant

Annotated with numbers: 6, 13, 26, 12, 42, 24, 3, 1, 9, 7, 50
Figure 8  Average marginal effects (AME) of net parental class on respondents’ access to the salariat by sex and cohort

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.

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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