Educating Beijing’s Migrants:  
A Profile of the Weakest Link in China’s Education System

Scott Rozelle, Xiaochen Ma, linxiu Zhang and Chengfang Liu
“Iron Law of Economic Development”

- Percent of Pop’n in Ag. Sector
- Income per Capita

- Ethiopia, Rwanda, etc.
- US and other OECD nations
"Iron Law of Economic Development"

Zero: there are no high income countries in world with more than 10 percent of their populations that live in agriculture.
“Taiwan’s Development Path”

Percent of Pop’n in Ag. Sector

Taiwan—1950s
Taiwan—1980
Taiwan—today

Income per Capita
In 1980, China was Very Poor AND Very Rural.
The size of economy in 2004 was more than 10 times as that in 1978

It took the US nearly 100 years from 1870 to 1970 … to grow by 10 times!

So China is moving rapidly from left to right across the graph on the previous page
Overall Increase in Off-farm Work

In 2000: 45% of rural labor force have jobs off the farm ... more than 80% of households have at least 1 person working off the farm

In 1980: only 4% worked full time off the farm
## Comparison of off-farm rates by age categories

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During the past ten years most of the growth of the off farm rural labor force has been in the form of migration to urban areas.
Comparison of Off-farm work, by age range

Workers Aged 16-20

Workers Aged 41-50

Specialize in off farm work … mostly in the city …

≈75%
Conclusions / Key Questions

• China moving rapidly along the “Transformation Path”
• Labor transition (from ag to industrial sectors) in China is well underway—especially for younger cohorts ...

• There is a second part of that transition:
  Urbanization (from rural to urban) ... which is the theme of this conference
• Question: How is this happening ... in the case of the education of the rural education? Could education in the cities be a barrier?
Significant Educational Achievements in Rural China

✓ Nearly achieved the nation’s two basic goals
   1. universal compulsory edu.
   2. eradicating illiteracy

✓ Most children are in school

✓ There is a narrowing of the gender gap in education
However, there is a growing segment of population that does not fit neatly into China’s standard rural-urban categories.

The children of rural-to-urban migrants that are moving to China’s cities have fallen into a GAP in the provision of public education.

Most of the children of migrants are unable to go to public schools … therefore, they mostly attend schools that are private … these schools are not monitored by the government … and until recently were thought to be outright illegal…they are transient institutions, often moving every few years.
In recent years, however, policy makers have gradually begun to pass laws and design policies to protect the rights of migrants.

Migrant children are now supposed to be entitled to attend public urban schools in their local school districts where schooling is supposed to be free.
Despite the change in the official line, access to schooling is still not routine; most children of migrants in Beijing have no choice but to go to these private, unregulated migrant schools (Tao and Yang, 2007).
The goals of this presentation

• To estimate the trends in migrant education in Beijing (and compare them to rural and urban schools);

• To begin to understand the nature of migrant education in Beijing
  – How POOR is migrant education?
    [e.g., compared to rural schools in poor areas of rural China]
    [e.g., compared to migrants in Beijing Urban Public School]

• To discover some of the determinants of educational performance of migrant students
  – Why some students in some schools performed better than others
Plan for the rest of this paper

• Trends of migrant education in Beijing;
  • Data
  • Nature of migrant education in Beijing;
  • Determinants of educational performance.
Trend 1. Change in the Number of Elementary Students in Urban Schools, 1996 to 2006

The student population in China … even in urban areas is falling … this is, of course, in part in response to the success of China’s One Child Policy PLUS the demographic transition.

Data Sources: China National Bureau of Statistics (CNBS), 1997 to 2007
Trend 2. Change in the Number of Elementary Students in Rural Schools, 1996 to 2006

Note: Does not include town elementary schools

Data Sources: Ministry of Education (MOE), 1996 to 2007

This decline is even more evident in rural schools
Trend 3. Change in the Number of Migrant Schools in Beijing Municipality, 1999 to 2007

Panel A. Number of Migrant Schools

However, look at the rise of the number of migrant schools and migrant students … here we use data from Beijing.
Trend 4. Change in the Number of School-Aged Children of Migrants in Beijing Municipality, 1997 to 2008
Trend 5. Change in the Number of Students in Migrant Schools in Beijing Municipality, 2001 to 2007

Panel B. Number of Students in Migrant Schools

Year:
- 1995
- 1997
- 1999
- 2001
- 2003
- 2005
- 2007
- 2009

Number of Students:
- 10,000
- 20,000
- 30,000
- 40,000
- 50,000
- 60,000
- 70,000
- 80,000
- 90,000
- 100,000
In summary, we can see a somewhat puzzling phenomenon about China’s educational system:

- The government is investing increasing amounts of fiscal resources into:
  - Urban schools and
  - Rural schools
- However, the numbers of students in both urban and rural school have been decreasing.
- But, almost no investment is targeted to the the segment of the education system that is growing the fastest …
Plan for the rest of this paper

- Trends of migrant education in Beijing;
- Data
- Nature of migrant education in Beijing;
- Determinants of educational performance.
Where the data come from:

- 7 districts in Beijing, 23 migrant schools, 931 migrant students;

- 5 national poverty counties in Shaanxi province, 67 rural schools, 2692 rural students
Random 10% sample … stratified by district

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<tr>
<th>District</th>
<th>Sample Population</th>
<th>Sample Schools</th>
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<tr>
<td>Chaoyang</td>
<td>55</td>
<td>6</td>
</tr>
<tr>
<td>Haidian</td>
<td>45</td>
<td>5</td>
</tr>
<tr>
<td>Shijinshan</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>Tongzhou</td>
<td>21</td>
<td>2</td>
</tr>
<tr>
<td>Daxing</td>
<td>28</td>
<td>2</td>
</tr>
<tr>
<td>Changping</td>
<td>35</td>
<td>4</td>
</tr>
<tr>
<td>Shunyi</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>Fangshan</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Xuanwu</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Huairou</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>224</strong></td>
<td><strong>23</strong></td>
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Conducted our Survey of Beijing’s Migrant Schools in December 2008 and January 2009.

7 districts of Beijing

23 migrant schools
✓ 6 in Chaoyang
✓ 5 in Haidian
✓ 2 in Shijingshan
✓ 2 in Tongzhou
✓ 2 in Daixing
✓ 4 in Changping
✓ 2 in Shunyi

In total we surveyed: 931 fourth grade migrant students (from 23 provinces)
Where the data come from:

• 7 districts in Beijing, 23 migrant schools, 931 migrant students;

• 5 national poverty counties in Shaanxi province, 67 rural schools, 2692 rural students
One more part of our data set:

For comparisons we also administered standardized math tests to 2700 students in 67 schools in 5 of the poor of counties in Shaanxi …

5 national poverty counties in Shannxi province

67 rural schools schools
✓ 8 in Jiaxian
✓ 8 in Shuide
✓ 9 in Baihe
✓ 25 in Xunyang
✓ 5 in Zhashui

Also collected information on the schools / teachers
Per Capita Annual Net Income of Sample Counties of Shaanxi Province

The point of this chart is to show that the per capita incomes in the counties from which our rural schools are drawn were very poor.
How well do students that attend migrant students perform in standardized tests?
Scores of math test across the entire sample population of migrant schools in Beijing
How do the scores of students in migrant schools compare to students from poor rural areas?

- Scholars have noted that rural schools were much worse than urban schools (Hannum et al., 2008)

- “A significant degree of disparity in the preparation of teachers, a critical element of school quality, can be found across urban-rural lines … in general, schooling is much inferior in rural when compared to urban”
Scores of math test across the entire sample population of rural schools in Shaanxi Province’s poor rural areas
Comparisons of scores in rural schools (in poorest areas of China) and migrant schools.

Scores of migrant children probably among lowest in all of China!!!
Look at subset of students in rural schools (in Shaanxi’s poorest areas) and students in migrant schools

Mean—Standardized Math Test Scores

Scores of liushou ertong > liudong ertong
Map of the Sample Migrant Schools …

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Supplemental Survey:
23 Beijing Public School Classes
Gave the exact same exam
Mean score among students from rural areas in different types of schools

- Rural: 71.79
- Migrant: 70.31
- Beijing Urban: 78.23
- Migrant: 70.31
Nature of migrant education in Beijing

• In this section we want to try to understand some of the consequences of the neglect of migrant schools ...
Students from Beijing Migrant Schools vs Students from Shaanxi Rural Schools

Migrant schools scores < Rural school scores

Students/parents more or less identical

But,

schools facilities: worse
teachers quality: worse

Actually, after holding school facilities / teacher quality constant (using regression analysis), grades of students in migrant schools are equalized … so ➔ the low scores of migrant students are, in part, a function of poor facilities / teachers …

Recall: these are schools in one of the poorest areas in China …
Final Summary

• Education has never been more important:
  For individual / household earnings
  For national growth / transformation
• Size of Cohort of Students in Migrant Schools is fastest growing in China
• But, Students in Migrant Schools performing at the bottom of the scale
  Liudong Ertong (migrant schools) < Liushou Ertong
  Liudong Ertong (migrant schools) << Migrant students in Beijing Schools
Why?
  It could be selection
  It could be that migrant school education is just plain inferior
What is the solution?

• Only one permanent solution:
  – Government must take on responsibility
  – It is possible now (fiscally) ... need to move towards this goal
  – Problem:
    • Decentralized nature of responsibility of education
    • Provinces / municipalities have incentive NOT to provide quality education
    • Therefore, must shift responsibility to central gov’t
Will it lead to “flood” of migrants?

• No ... [it will accelerate the flow, but not trigger a flood ⇒ which may not be bad]

  – Education is only one component of calculus of families to move from rural to urban ...
  – Families will still balance gains from moving (better education) with gains from staying:
    • Cost of leaving rural areas:
      – Loss of income from land (increasingly high as rental becomes possible + rise in specialization)
      – Subsidy payments (grain subsidies / input subsidies / Grain for Green)
      – New social programs (NCMS / Social welfare—dibao / etc.)
      – Lower costs of living in rural areas

  – Also (unfortunately): Government-provided schooling for migrant will probably not be equal to the best urban schools
THANK YOU!