

Human Capital Inequality as a Challenge to Sustainable Development: The Case of China

Linxiu Zhang

Center for Chinese Agricultural Policy

Chinese Academy of Sciences

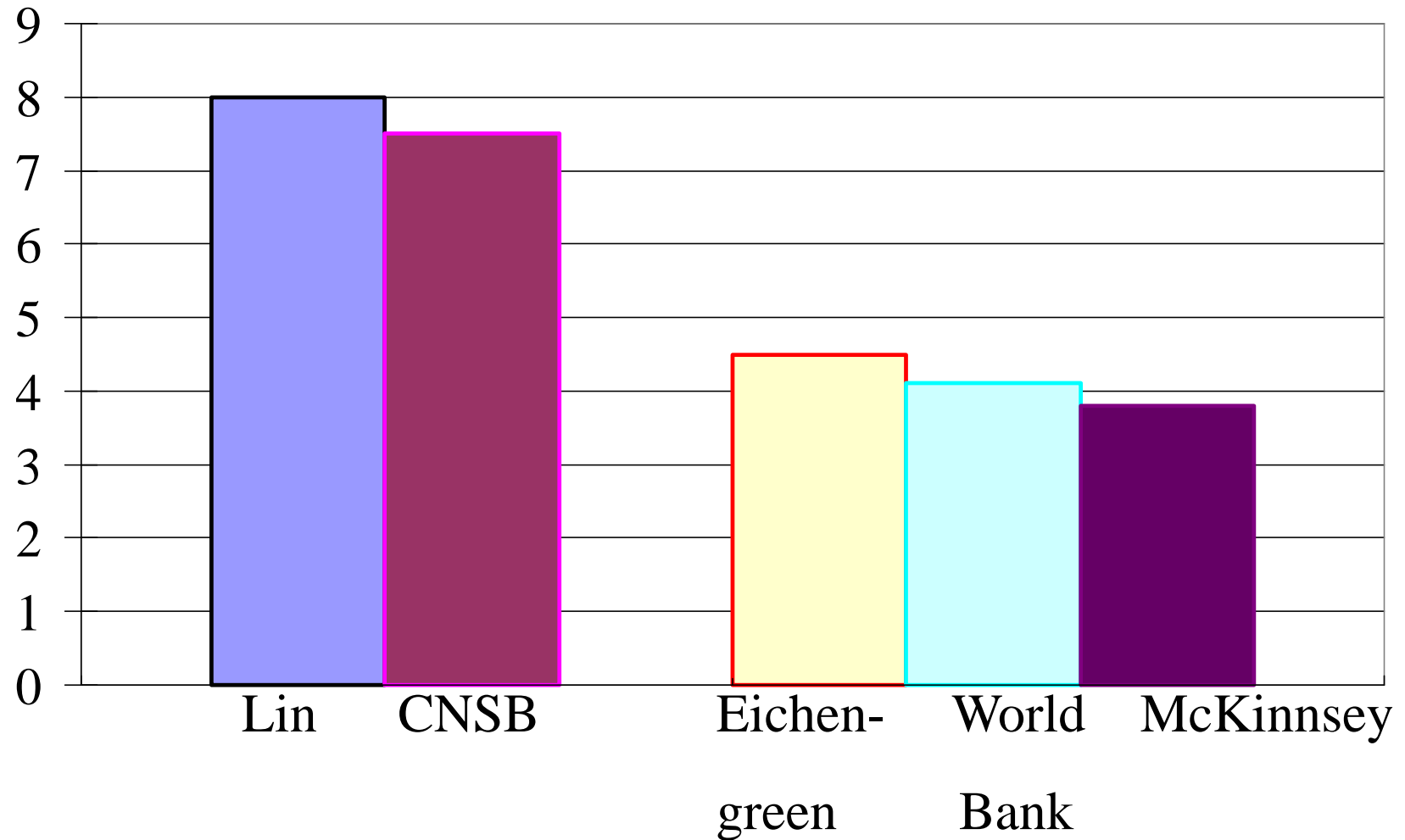
WSF on “Sciences for Global Sustainable Development”

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What are the prospects for future growth?

Projected Growth Rates: 2012 to 2025 (or so)

Percent per year



Key question: How well China's economy can grow?

- The answer depend very much on how to deal it's inequality.

- However, what is the inequality like in the near future?

- To examine this question rely, in part, on part of the followinh equation:

China's Inequality in 2025 to 2030

Income Inequality TODAY

+

Human Capital Inequality TODAY

=

Income Inequality TOMORROW

China's Inequality in 2025 to 2030

Income Inequality TODAY → VERY HIGH

+

Human Capital Inequality TODAY

=

Income Inequality TOMORROW

Aspirees Inequality (gini ratios)

- Argentina (46)
- Brazil (54)
- Chile (52)
- Costa Rica (50)
- Malaysia (46)
- Mexico (52)
- Russia (42)
- Thailand (42)
- Tunisia (41)
- Turkey (43)
- Uruguay (42)
- Venezuela (44)

China:

≈50 and rising!

China's Inequality in 2025 to 2030

Income Inequality TODAY → **VERY HIGH**

+

Human Capital Inequality TODAY ?

=

Income Inequality TOMORROW

Education equality?

Health equality?

Nutrition equality?

What will China's inequality be like in 2025 or so?

- To examine this question rely, in part, on part of this equation:

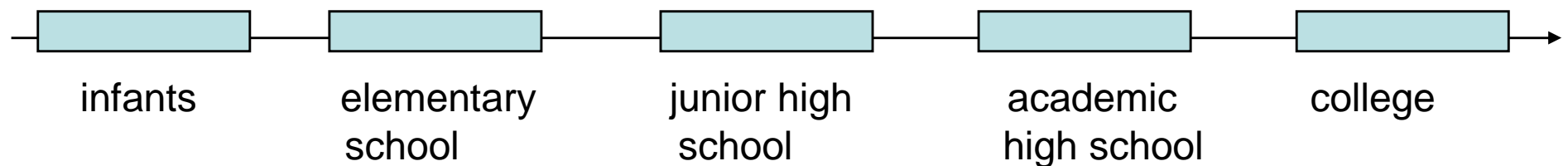
In short: Today's human capital inequality among children (health / nutrition / education) is one of the strongest determinants of tomorrow income inequality → are workers today employable tomorrow? → → and a strong determinant of tomorrow's growth and stability

Rest of presentation

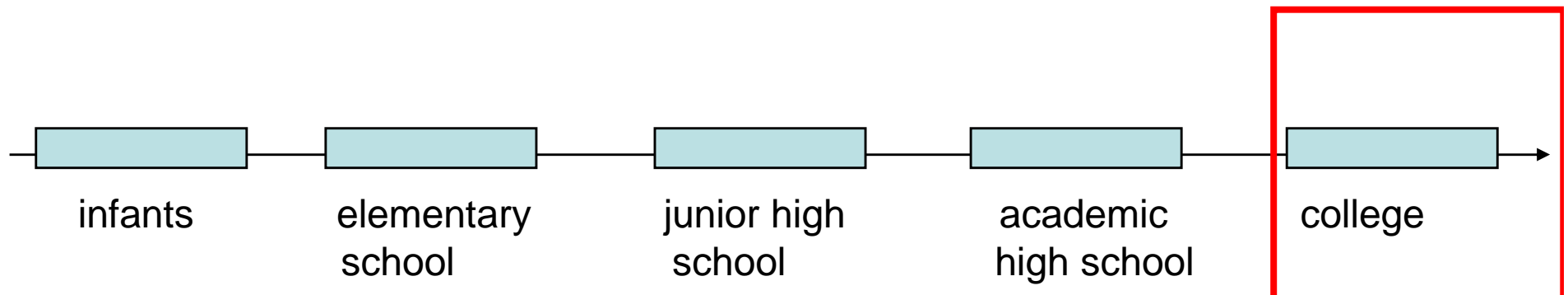
Examine Today's China Human Capital Inequality?

- How equal are China's education system?
- How poor is nutrition in China's poor rural areas?
- How to turn it around through research/policy intervention?

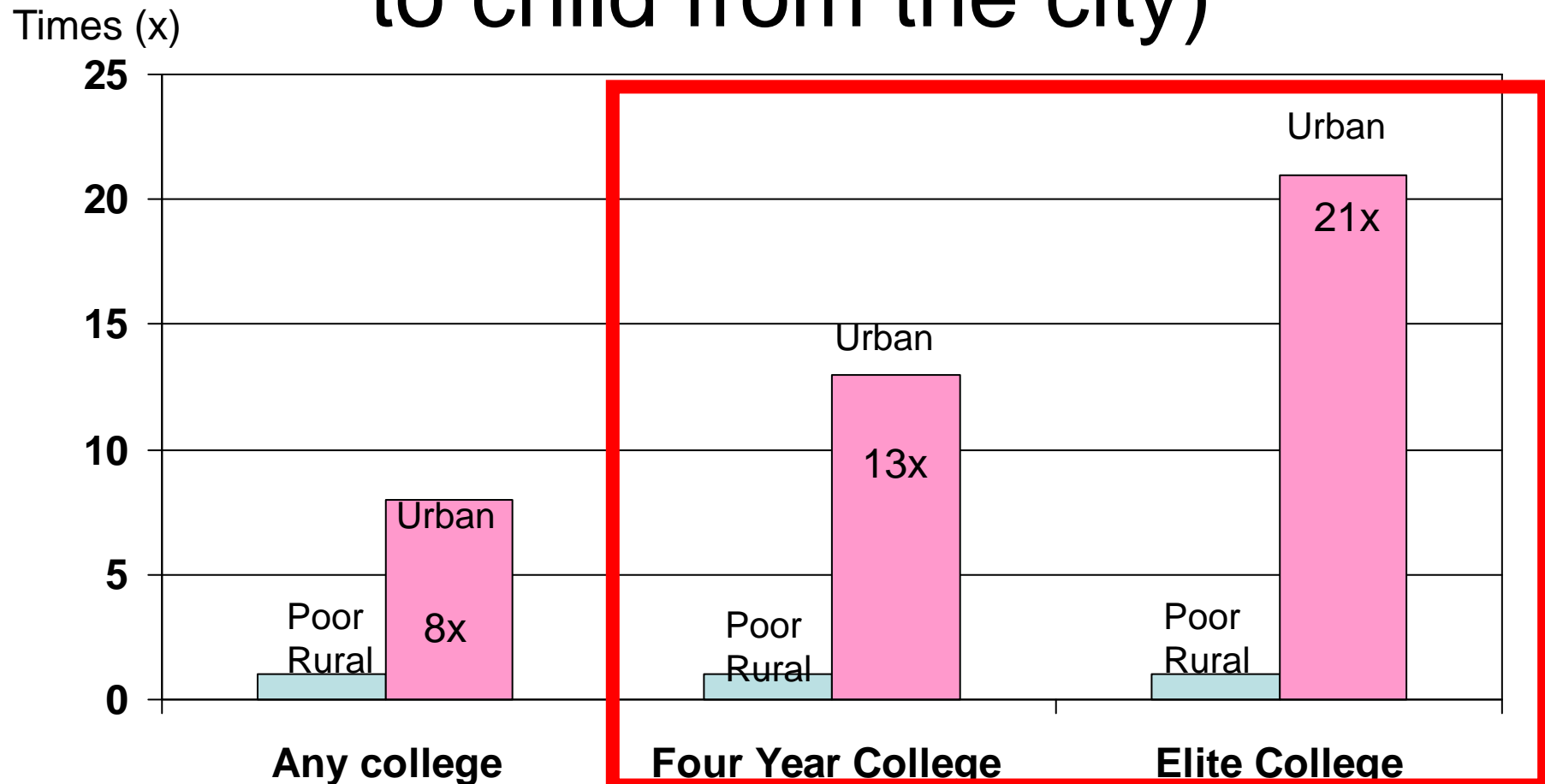
How unequal is China's education system today?



How unequal is China's education system today?

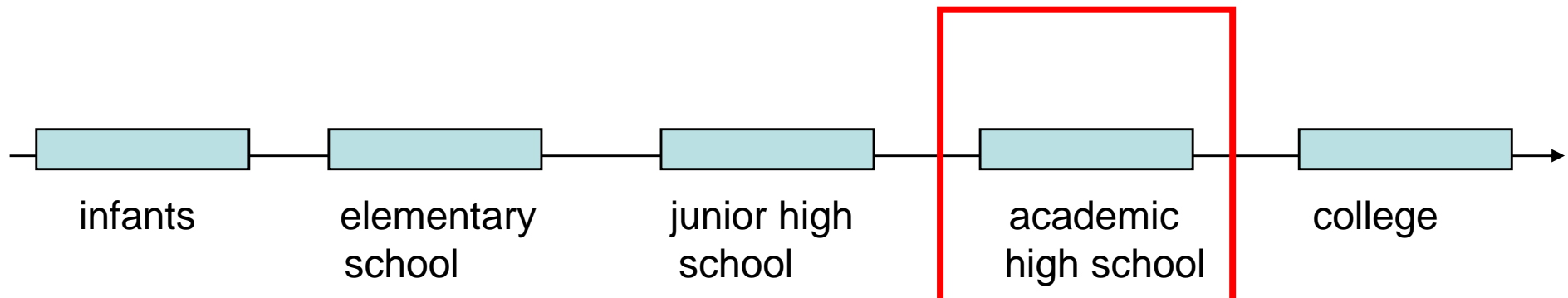


Probability of a child from a poor rural area going to **college** (relative to child from the city)



Even worse odds for four year colleges ... and elite colleges ...

How unequal is China's education system today?



While all kids do not need to go to college, **all children should be going to high school ...** to get skills for workforce 20 years from now!!

This is critical at this stage of development to get all children the skills they will need in the future

- Why?

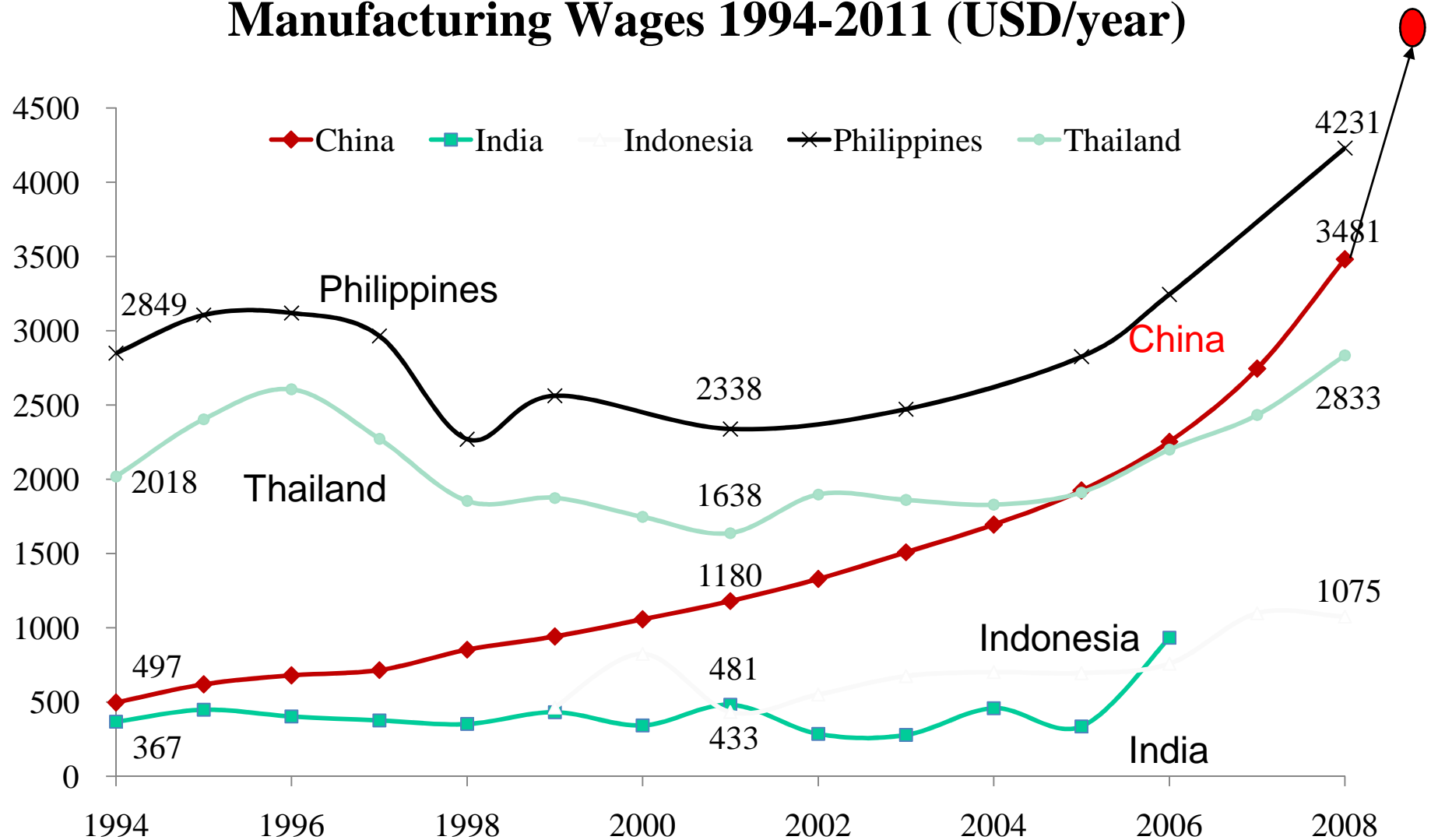
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- Why?

The Unskilled Wage in China is Rising Fast!

Manufacturing Wages 1994-2011 (USD/year)



China now has the 6th highest unskilled wage in Asia ... after: Japan / S. Korea / Taiwan / Hong Kong / Singapore

While all kids do not need to go to college, **all children should be going to high school ...** to get skills for workforce 20 years from now!!

... as we have seen from the discussion above, this is critical at this stage of development to get all children the skills they will need in the future

- **BUT: Only 40% of junior high grads in poor rural areas go on to academic high school ... One of the critical gap**

Why is attendance so low?

- Strict enrollment limits to academic high schools ...
- But, the poor (given test scores that are high enough to attend high school & other measures of human capital) → attend high school at much lower rates
- Why?

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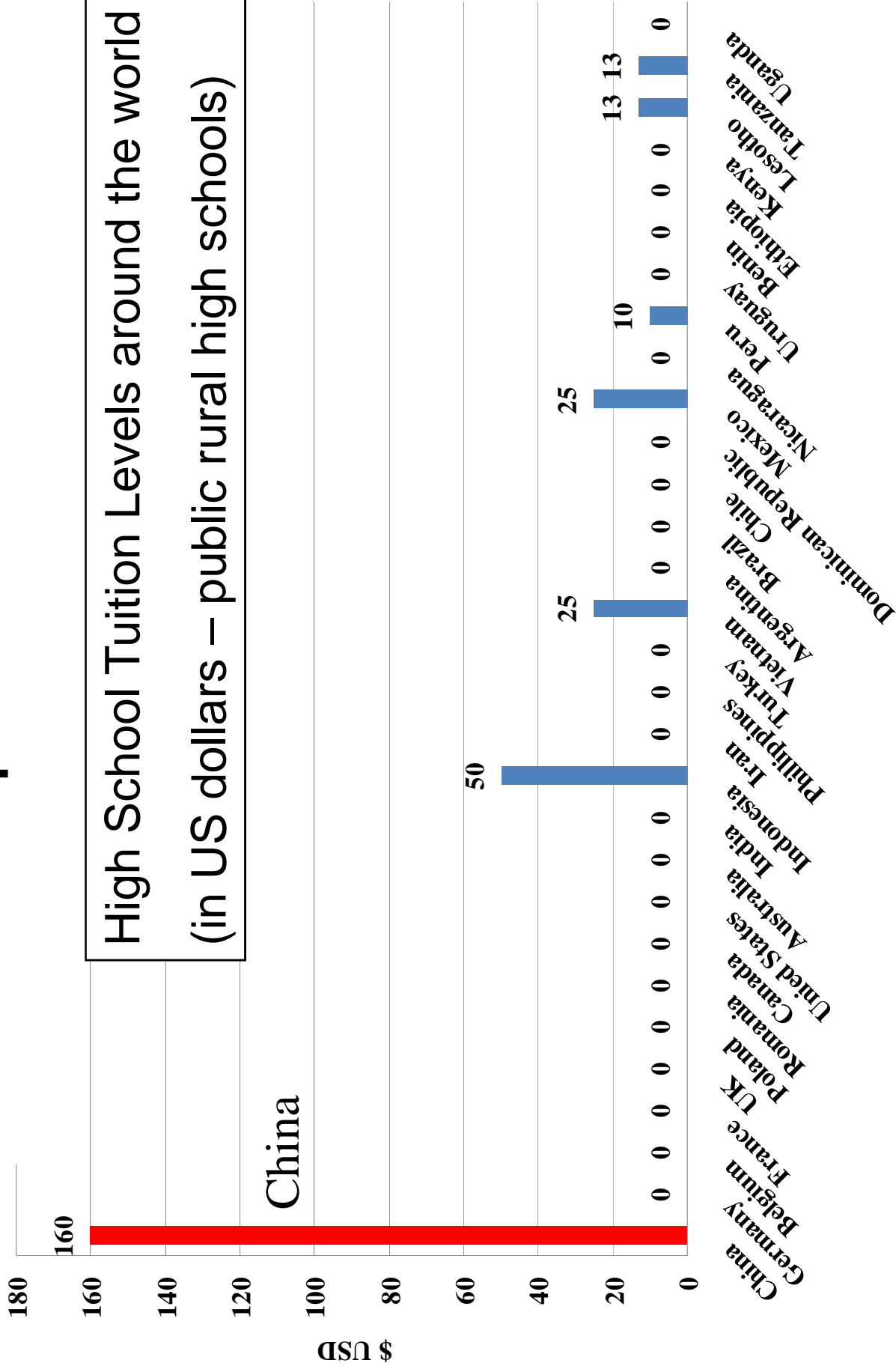
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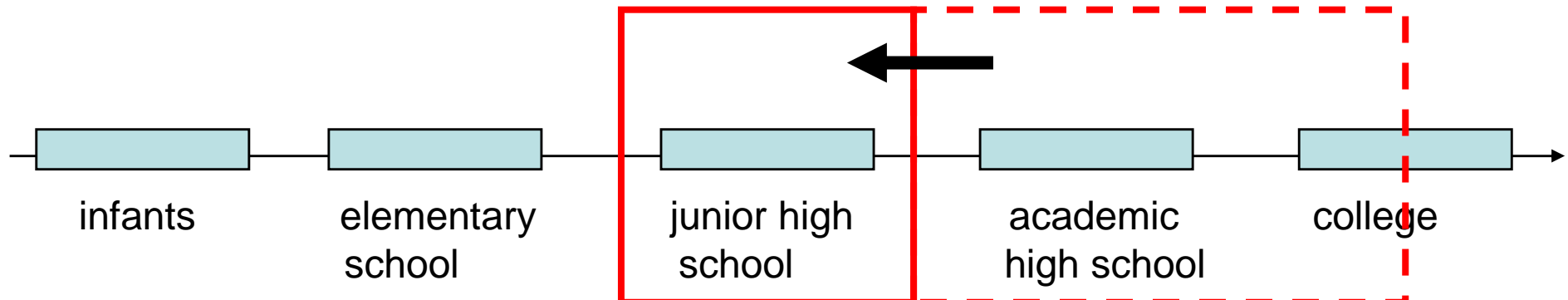
- Why?

A possible reason ...

High School Tuition Levels around the world
(in US dollars – public rural high schools)

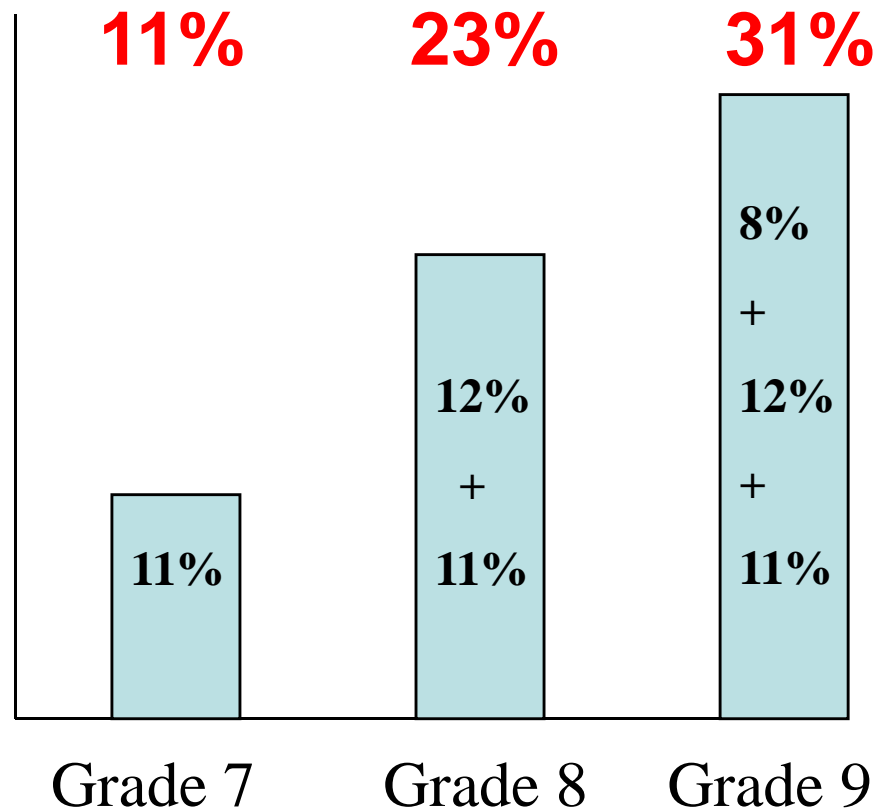


How unequal is China's education system today?



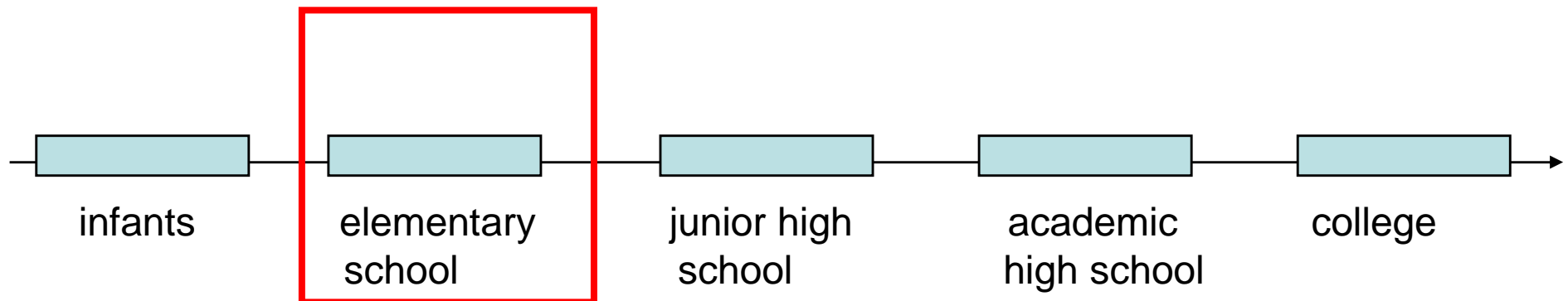
Our studies show (in part due to poor quality of education / and rising wages) China's rural students are not even getting through junior high school

Drop out rate



Over 30 percent of students from poor rural areas are dropping out of **JUNIOR HIGH SCHOOL!**

How unequal is China's education system today?

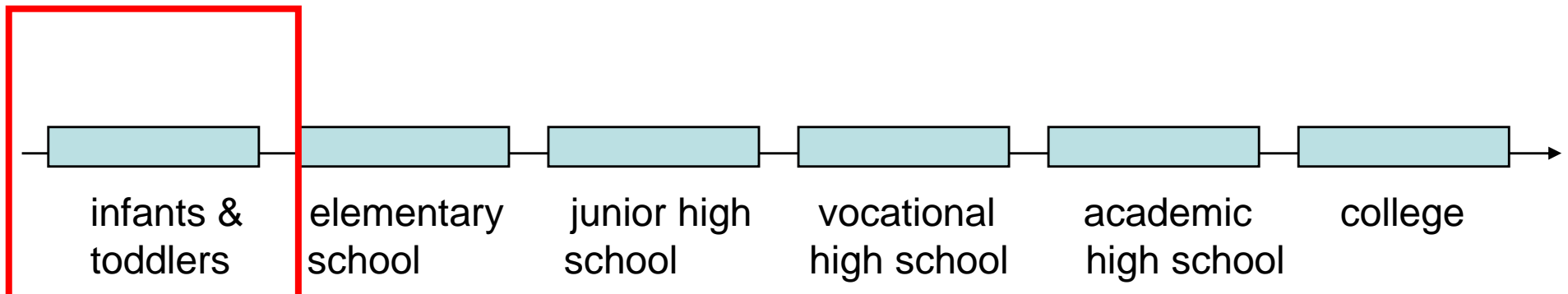


Under performance of primary school children in poor rural areas due to poor health and nutrition:

Apart from poor teaching quality...

- Malnutrition: anemia as high as 33%
- Uncorrected vision problem (2% vs 25%)
- Intestinal worm infections (39%);
-

How unequal is China's education system today?



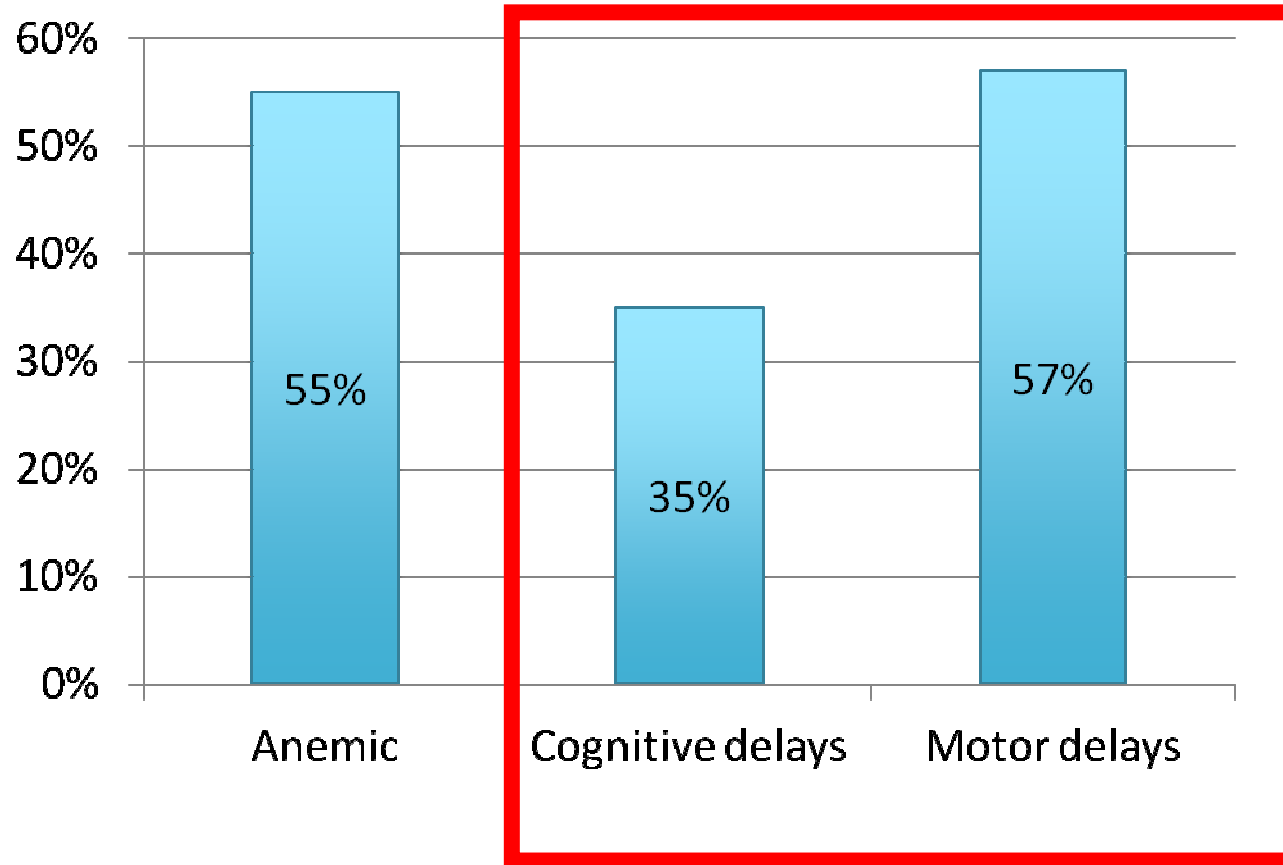
Even earlier (malnutrition during the first 1000 days)

- Testing ≈2000 babies and their Mom's in Southern Shaanxi

(these areas are all ethnic Han and are only 2 to 3 hour drive from Xi'an – one of China's fastest growing cities)



Of the nearly 2,000 babies tested....



>70% were significantly delayed in either cognitive or motor development

Ultimate Consequences:

If the micronutrient deficiencies of infants / toddlers are not corrected before baby is 30 months old →

- Life time effects on:
 - IQ
 - Mental health
 - Height
 - Weight
 - Health

If not corrected by the time babies are 30 months, between 20 to 30 percent (0.7 x 0.45) of China's future population are in danger of becoming PERMANENTLY physically and mentally HANDICAPPED

Summary / Conclusions

What are the prospects for China's
inequality in the coming years?

Income Inequality TODAY

+

Human Capital Inequality TODAY

=

Income Inequality TOMORROW

What are the prospects for China's inequality in the coming years?

Income Inequality TODAY (one of highest in the world)

+

Human Capital Inequality TODAY

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Income Inequality TOMORROW

What are the prospects for China's inequality in the coming years?

Income Inequality TODAY (one of highest in the world)

+

Human Capital Inequality TODAY (very high)

=

Income Inequality TOMORROW

Unequal Education

Unequal Nutrition

Unequal Health

What are the prospects for China's inequality in the coming years?

Income Inequality TODAY (one of highest in the world)

+

Human Capital Inequality TODAY

Education equality?

Health equality?

Nutrition equality?

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Income Inequality TOMORROW →

→ **EXTREME?**

Unlike the patterns of growth in countries that successfully graduated from middle income to high income

- Japan, South Korea, Taiwan, Ireland, New Zealand, Israel, Czech Republic, Slovakia ... and more: GROWTH WITH EQUITY
- Argentina, Venezuela, Mexico, Brazil and Chile (in 1960s/1970s): GROWTH WITH HIGH INEQUALITY →

COLLAPSE / STAGNATION

Unlike the patterns of growth in countries that successfully graduated from middle income to high income

China is NOT on the path of →

- Japan, South Korea, Taiwan, Ireland, New Zealand, Israel, Czech Republic, Slovakia ... and more: **GROWTH WITH EQUITY**

- Argentina, Venezuela, Mexico, Brazil and Chile (in 1960s/1970s): **GROWTH WITH HIGH INEQUALITY** →

COLLAPSE / STAGNATION

Unlike the patterns of growth in countries that successfully graduated from middle income to high income

- Japan, South Korea, Taiwan, Ireland, New Zealand, Israel, Czech Republic, Slovakia ... and more: **GROWTH WITH EQUITY**

In many ways, China is following the paths of →

- Argentina (in the 1950s);
Venezuela, Brazil and Chile (in 1960s/1970s); Mexico (Today):

**GROWTH WITH HIGH INEQUALITY →
COLLAPSE / STAGNATION?**

Can China overcome inequality?

- **Can not** do much about Today's Income Inequality (it is a FACT)
- **One of main interventions** → Investment Heavily TODAY in human capital ... for ALL

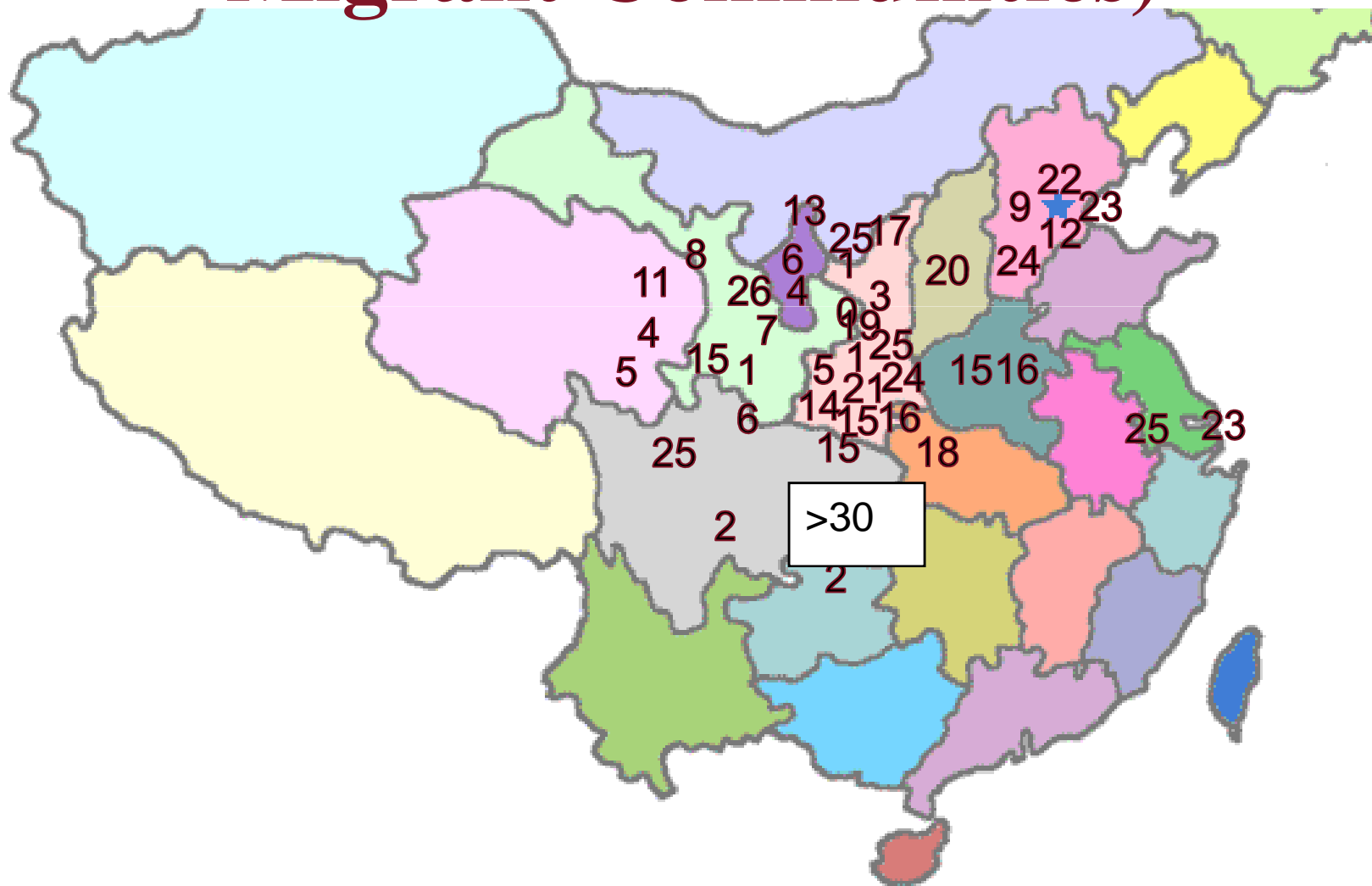
Search for solutions to narrow rural-urban education/nutrition gaps

Rural Education Action Project - REAP

Find solutions by helping 100s and
1000s ...

... and work with the government to
help 1,000,000s ...

Policy Experiments (Projects) in China's Poor Rural Areas (and Migrant Communities)



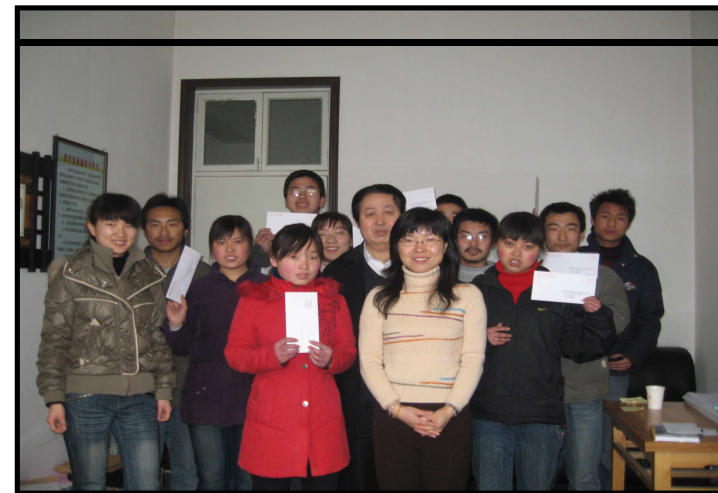
REAP addresses human capital Challenge Areas



Health, Nutrition and Education



**Technology and
Human Capital**



**Access to Secondary
Education and Beyond**

www.reapchina.org
Reap.stanford.edu



Thank You!