

# Discussion of: Wages, Human Capital, and the Allocation of Labor across Sectors

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## My discussion

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Two questions:

1. How well do sector specific returns perform in explaining agriculture productivity gaps across countries?
2. What is the evidence on movers vs. stayers in developing countries?

Gollin, Lagakos, Waugh (2014)...

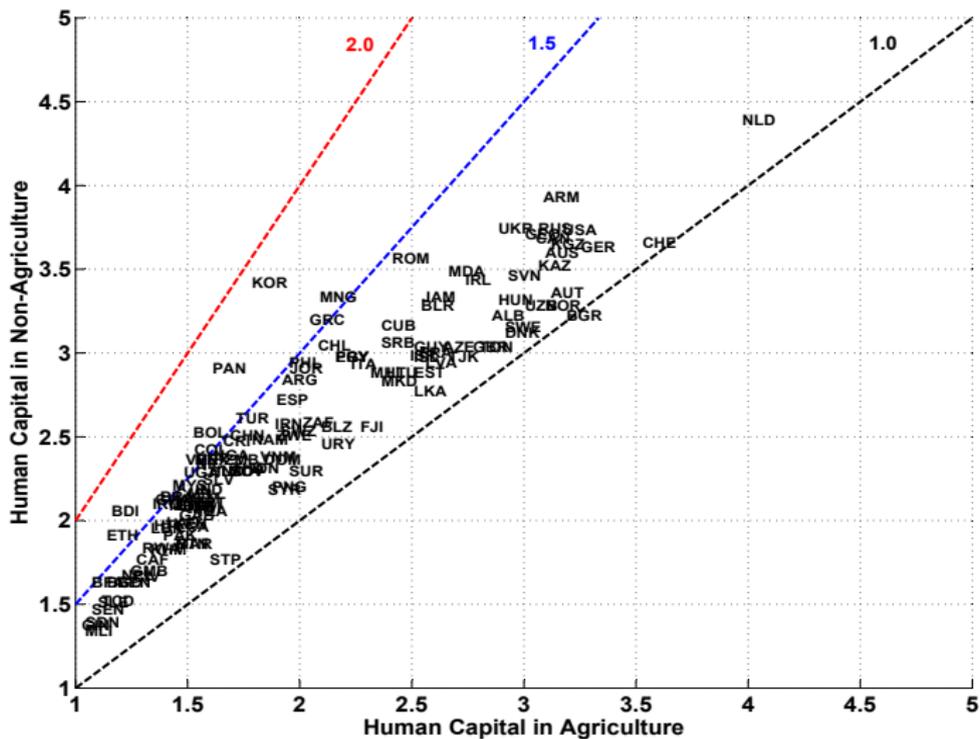
- Value added per worker in non-agricultural sector  $>$  agriculture sector ... the “agricultural productivity gap.”
- Adjust these gaps with new evidence on sector differences in hours worked and human capital per worker ... “a puzzlingly large gap remains.”

Herrendorf and Schoellman (2014)...

- Focus on wages (with emphasis on US); Similar findings as in GLW.
- Sector specific returns largely explain the gap in the US; GLW only used aggregate mincer returns to construct human capital.

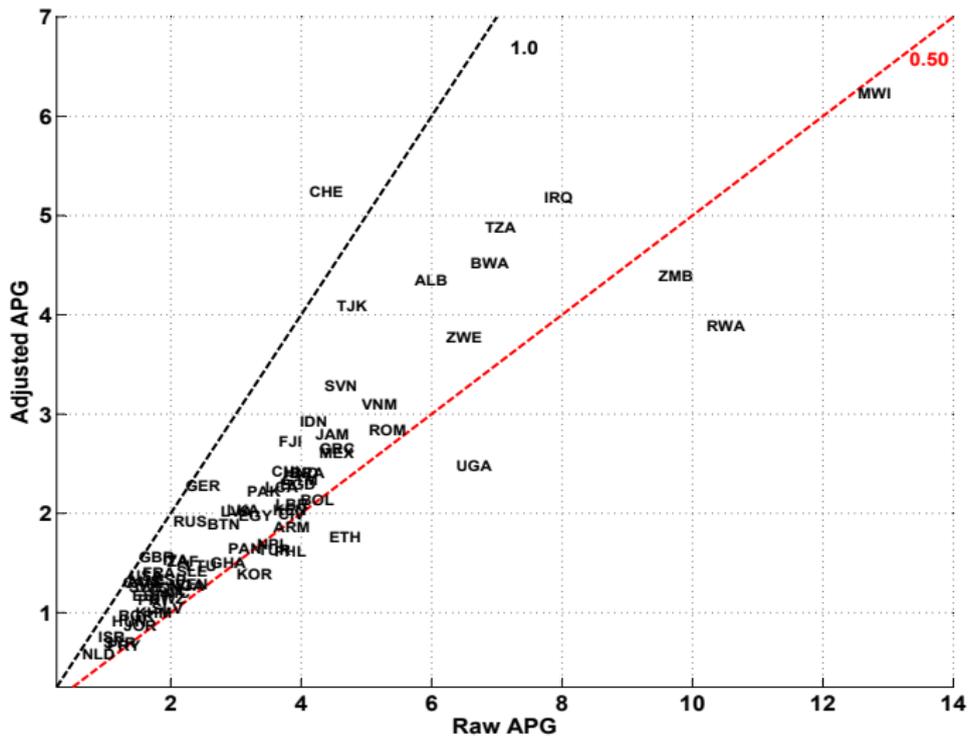
Question: How well do sector specific returns perform in explaining the APGs found in GLW?

## Human Capital: GLW Baseline

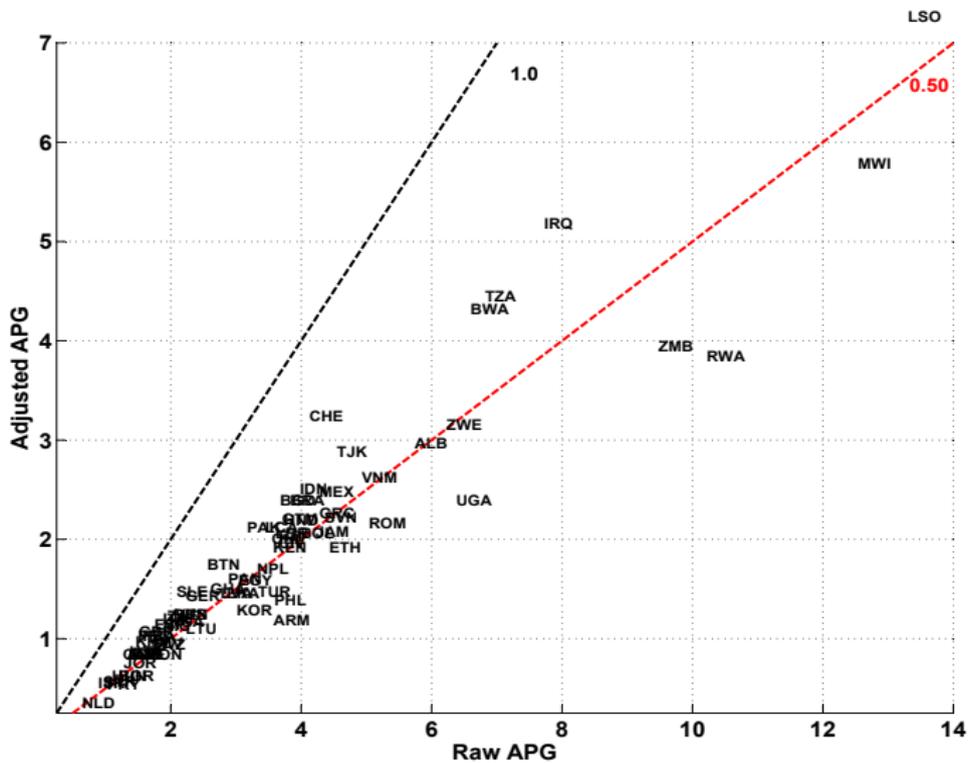




## Agricultural Productivity Gaps: GLW Baseline



## Agricultural Productivity Gaps: Sector Specific Returns



## Agricultural Productivity Gaps and Sector Specific Returns

### Agricultural Productivity Gaps and All Adjustments

Measure	Raw APG	All Adjustments	
		GLW Baseline	Sector Specific Return
10th Percentile	1.3	1.0	0.8
Median	3.1	1.9	1.5
Mean	3.5	2.2	1.9
90th Percentile	6.4	4.3	3.4
Number of Countries	72	72	72

**Note:** The raw APG is defined as the ratio of value added per worker in the non-agricultural sector to value added per worker in the agricultural sector, without any adjustments to the underlying value added or employment data. The adjusted APG is defined as the the ratio of value added per worker in the non-agricultural sector to value added per worker in the agricultural sector after adjusting for average hours worked per worker and average human capital per worker.

## APGs and Sector Specific Returns

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Summary...

- GLW baseline: human capital decreases APGs by  $\approx 25$  percent
- Sector-specific returns: human capital decreases APGs  $\approx 50$  percent
- Basically doubles the role of human capital in explaining the gap.

This is a compelling potential explanation... however, the key issue is to establish that this is a robust feature of in the data outside of the US.

- They can do this.
- HS (2014) should dedicate a majority of the paper arguing that sector-specific returns are in the cross-country data.
- On its own this would be an important contribution.

## Why Do Mincer Returns Differ by Sector?

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Herrendorf and Schoellman (2014)...

- Is it selection or technology? Look at movers vs. stayers; if selection, then we should not see large changes in wages as workers move.

Two issues here:

1. I don't think this is that simple.
  - For example: the model in Young (2014); interpretation of talent distribution in Lagakos and Waugh (2013).
2. Even if it were, the US data is not an ideal laboratory to tease this out...
  - CPS is about an address, not about moving, e.g. rural to urban areas.
  - Why are workers switching anyways? Movements during a structural transformation have to differ than movers in the US.

Question: Evidence on movers vs. stayers in a developing country?

## Tanzanian National Panel Survey

### Tanzanian National Panel Survey (TZNPS)...

- Part of Living Standards Measurement Studies implemented by the World Bank. Supported by Bill and Melinda Gates Foundation.
- Nationally representative household panel survey collecting information on agricultural production, non-farm activity, real consumption expenditure.
- First round of the survey was 2008-2009. Second round conducted 2010-2011. Third round completed but data is not available yet.
- Key feature is the **tracking** of individuals across rounds.
  - If a household member moved between rounds, they were tracked to their new location and re-interviewed.
  - Re-interview rate of 90 percent.

### Consumption Increase, Relative to Mean

Year 1	Year 2	
	Agriculture	Non Agriculture
Agriculture	0.93 [2074]	<b>1.51</b> [328]
Non Agriculture	0.87 [165]	0.98 [1079]

**Note:** From Lagakos, Mobarak, Waugh (in progress). This table plots the mean consumption increase by sector category relative to the overall average increase in consumption from the TZNPS. Consumption is measured as total household consumption per adult equivalent. Agricultural households are dened as households where at least half of the workers are in agriculture.

## Big Gains to Switching Location

### Consumption Increase, Relative to Mean

Year 1	Year 2	
	Rural	Urban
Rural	0.94 [2152]	<b>1.61</b> [184]
Urban	1.11 [297]	0.96 [1013]

**Note:** From Lagakos, Mobarak, Waugh (in progress). This table plots the mean consumption increase by migration category relative to the overall average increase in consumption from the TZNPS. Consumption is measured as total household consumption per adult equivalent.

### Years of Education by Migration Category

Year 1	Year 2	
	Rural	Urban
Rural	5.32 [2152]	<b>7.83</b> [184]
Urban	7.47 [297]	7.77 [1013]

**Note:** From Lagakos, Mobarak, Waugh (in progress). This table plots the mean years of household education per adult equivalent from the TZNPS.

## To Summarize

Herrendorf and Schoellman (2014):

**1.** Sector specific returns explain productivity gaps. . .

- An important contribution. But need to convince us that this is a first order feature of the data outside of the US.

**2.** Is it selection or technology?

- Not clear that this dichotomy is meaningful in both theory and data.
- Need better evidence on the dynamics of labor reallocation during a structural transformation to understand **1**.