

# African Youth, Education and Economic Development

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World Bank Africa Impact Evaluation Conference

Dakar, Senegal – October 2013

# Motivation

- By 2000, Africa was coming off a terrible quarter century
  - **African per capita incomes fell 20% during 1975-2000**
  - HIV/AIDS, civil war, genocide, dictatorship ...
- In the 1970s, Sub-Saharan Africa, China, and India had similar income levels

# Motivation

- African economic growth was at historical highs during 2000-2012, education levels soared, and democracy took root in many countries
- Is Africa (or parts of it) on track to join China and India as the next economic development “miracle”?

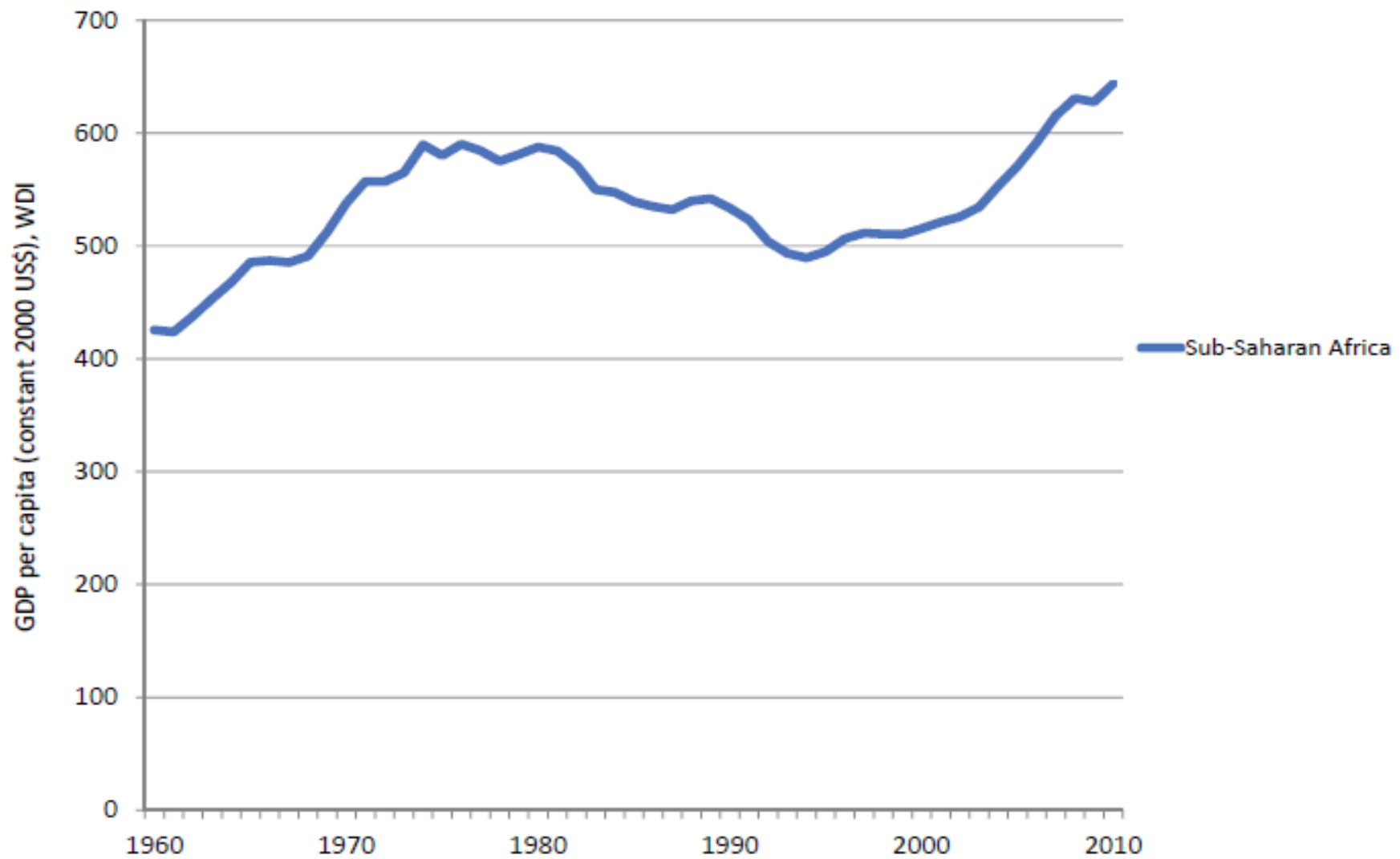
# The view from Kenya

- **Kenya illustrates the turnaround: since 2000 it has experienced its fastest economic growth since the 1970s**
  - Stable macroeconomic policy, growing foreign investment, rising real estate prices in Nairobi
  - Successful sectors: tea, coffee, tourism, flowers (same-day exports to Europe), telecommunications, call centers, regional manufacturing hub (textiles)

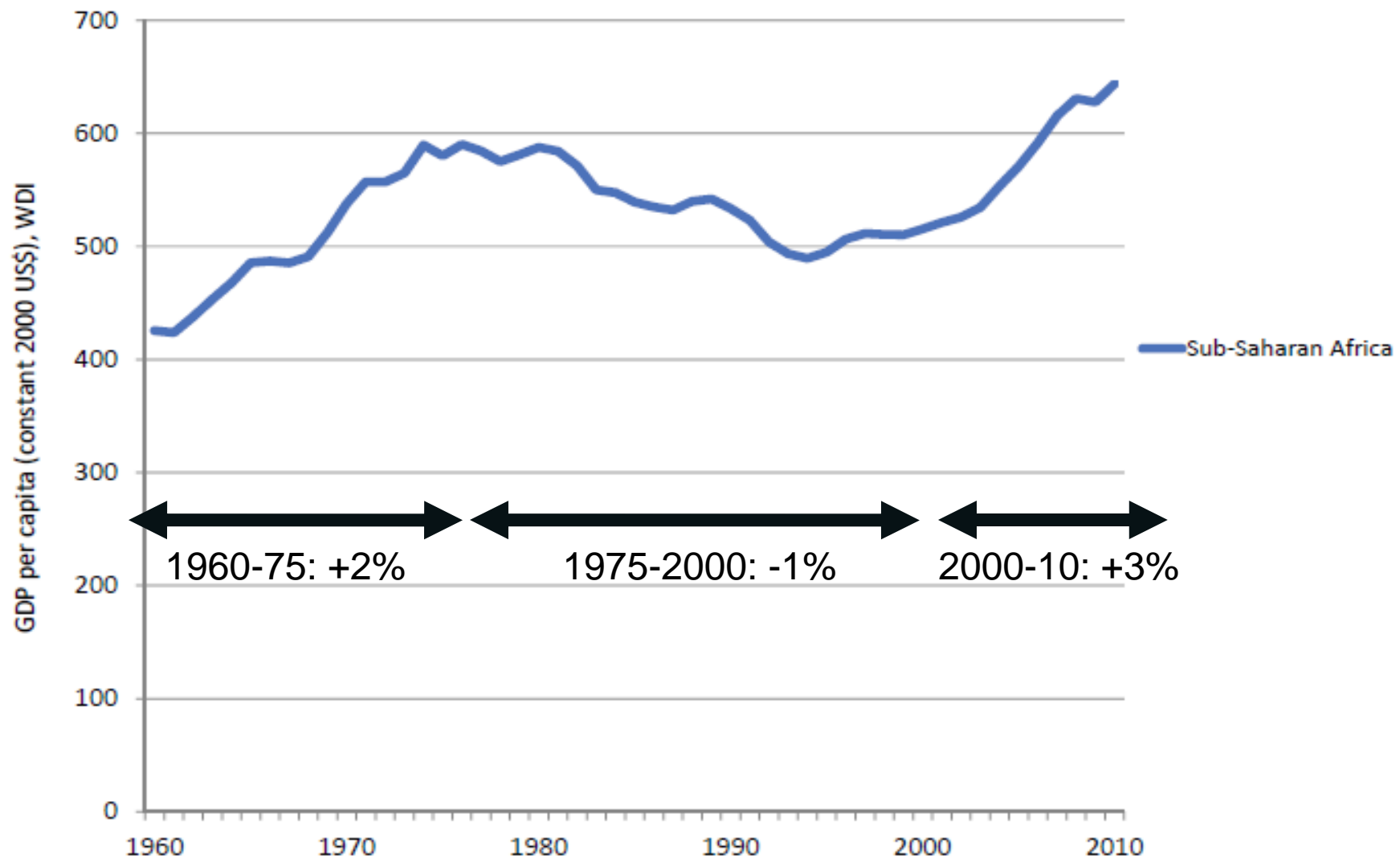
# The view from Kenya

- Economic progress was not restricted to Nairobi.
- **Busia is a small district capital town** I have visited each year since 1997 for research and NGO consulting
  - The contrast between 1997 and 2013 is striking, e.g., universal primary schooling, cell phones, electricity, access to banks / ATMs, freight traffic, political openness

# African per capita income, 1960-2010



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# The seeds of success: education

- **Most African countries made great strides in education during the otherwise “lost” decades of the 1970s and 1980s, including for women**
- Elected leaders, ministers, and technocrats are much better educated today than in the 1970s and 1980s, and they have pursued better public policies (e.g., education, telecommunications, macroeconomics).
- Education also creates a foundation for democracy



# Africa's democratic era

- By 2013, most African countries have held competitive elections and had free private media outlets
  - From 1990 to 2010, the average African “Freedom House” score increased a lot, from 6 to 4 (on a 7 point scale, 1=best)
- **Steve Radelet (Georgetown) finds that African democracies have had much faster economic growth since the early 1990s**

# Ex. 1: Impact evaluation of girls scholarships



# Ex. 1: Impact evaluation of girls scholarships

- We studied the impact of improved school learning on political and social attitudes five years later, using a **randomized evaluation** of a girls merit scholarship program in Kenya (Friedman et al. 2012).

→ Research design like those explored in this workshop: half of the schools randomized into treatment (a scholarship competition), half into the control group.

## Ex. 1: Impact evaluation of girls scholarships

- Girls in the incentive schools showed sustained human capital gains, as captured in test scores, 5 years later.
- **Perhaps more surprisingly, they read more newspapers, have better political knowledge, and are more critical of – and dissatisfied with – Kenyan politicians.**
  - Education creates more critical and engaged citizens.
- Implication 1: with appropriate design of surveys and other data, impact evaluations of education programs can shed light on issues of broader social importance

# Recent gains in health and mortality

- The unprecedented tragedy of the HIV/AIDS epidemic has taken millions of lives, ravaged health systems, and shortened life expectancy
- Aside from this scourge, there has been dramatic progress in many dimensions of health over the past few decades, e.g., infant mortality in Senegal has fallen from **92 (1980) to 45 (2012)** per 1000 live births – WDI
  - Critical implications for economic development and for future population growth.

## Ex. 2: Impact of school-based deworming on life outcomes



## Ex. 2: Impact of school-based deworming on life outcomes

- We studied the impact of deworming drugs on short-run educational outcomes and long-run (10 -year) labor market outcomes using a randomized experiment in Kenya (Miguel and Kremer 2004; Baird et al 2013).  
  
→ Research design like those explored in this workshop: the order in which schools were “phased into” treatment was randomized over three years (1998-2001)

## Ex. 2: Impact of school-based deworming on life outcomes

- **Deworming reduces school absenteeism by one quarter, and increases both work hours and labor earnings by 20% ten years later**
- Very high rates of return on deworming investments: treatment costs < 1USD per year per child  
→ the future tax revenue generated outweighs costs
- Implication 2: panel (longitudinal) surveys that track sample respondents over multiple years may yield unique insights into the sustained economic and public finance impacts of a program



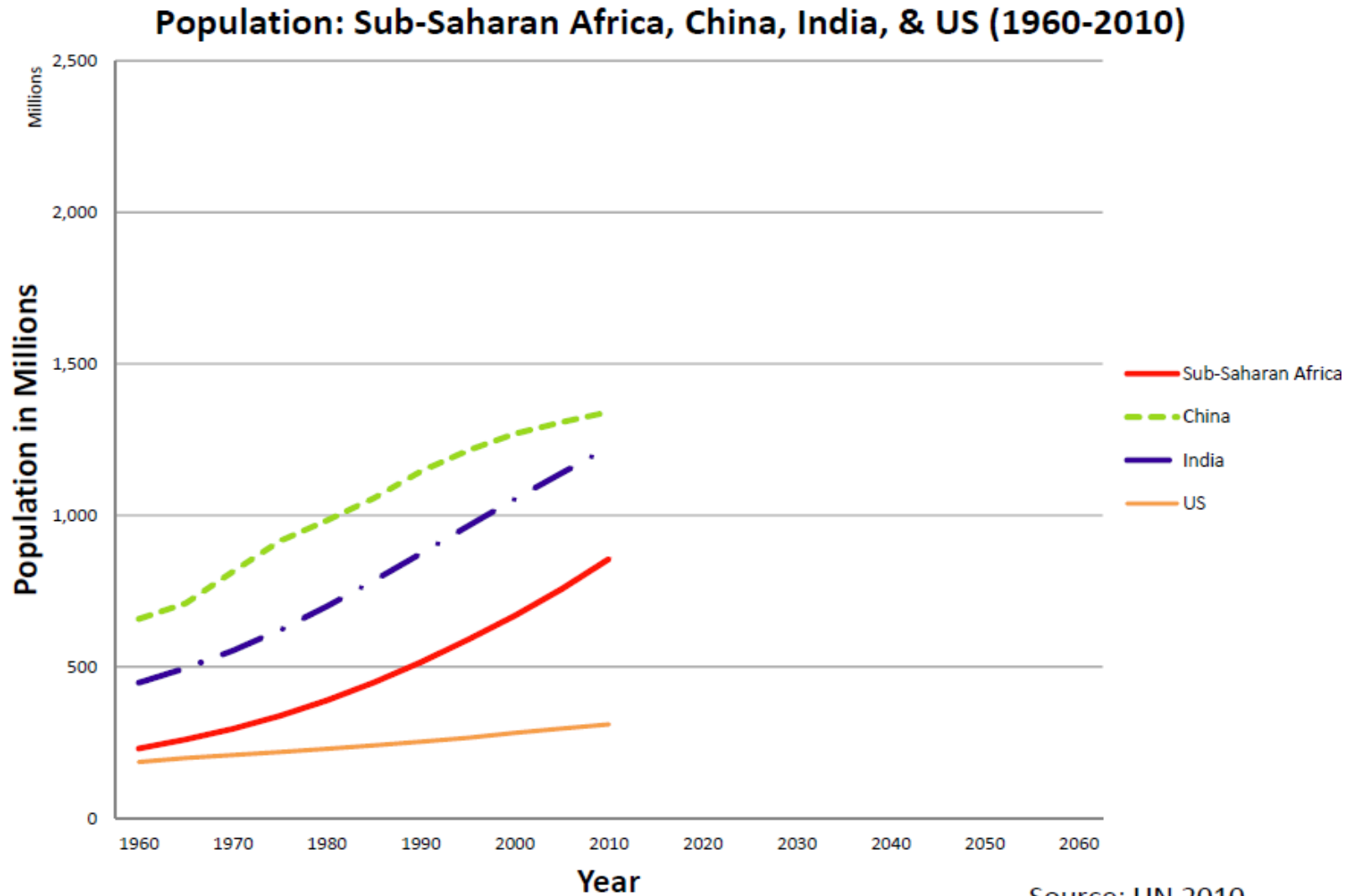
## Ex. 2: Impact of school-based deworming on life outcomes

- **Results of this study have helped to shift school-based health policy in Kenya and beyond**
- Kenya launched national school-based deworming in 2009, and recently extended it for five years. Over 5 million children treated per year at < US\$0.36 per child.
- School-based programs in India: **30 million children** treated in Bihar, New Delhi, Rajasthan in 2011-12
  - Well-designed impact evaluations can have a significant impact on public policy in Africa and beyond.

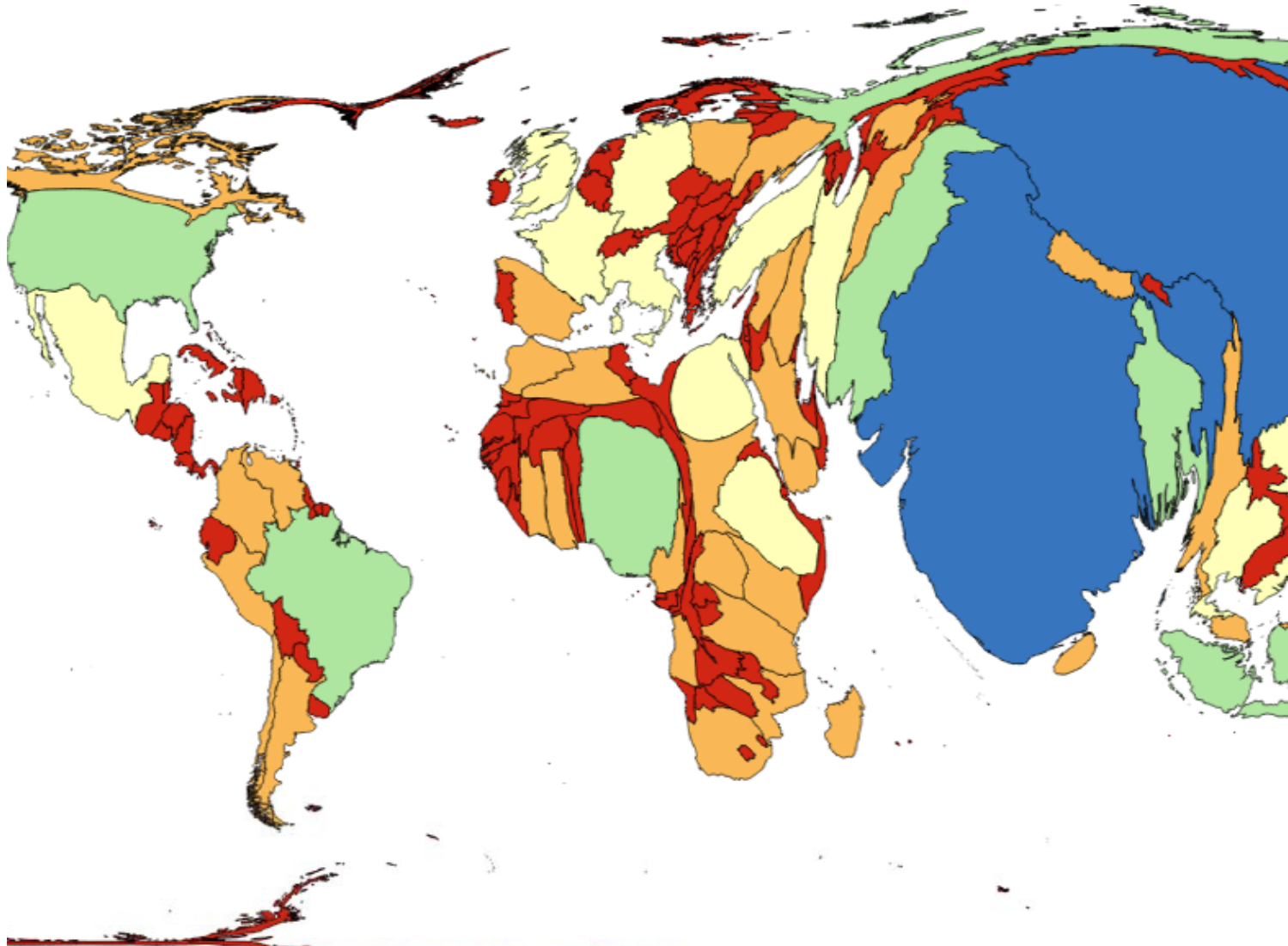
# African population is growing rapidly

- Sub-Saharan Africa (SSA) is the world's poorest and least developed continent along many dimensions, with the greatest “potential” for future economic growth.
- **Perhaps less well-known: it is also poised to become the world's most populous region, rising to nearly a quarter of humanity in the next half century.**

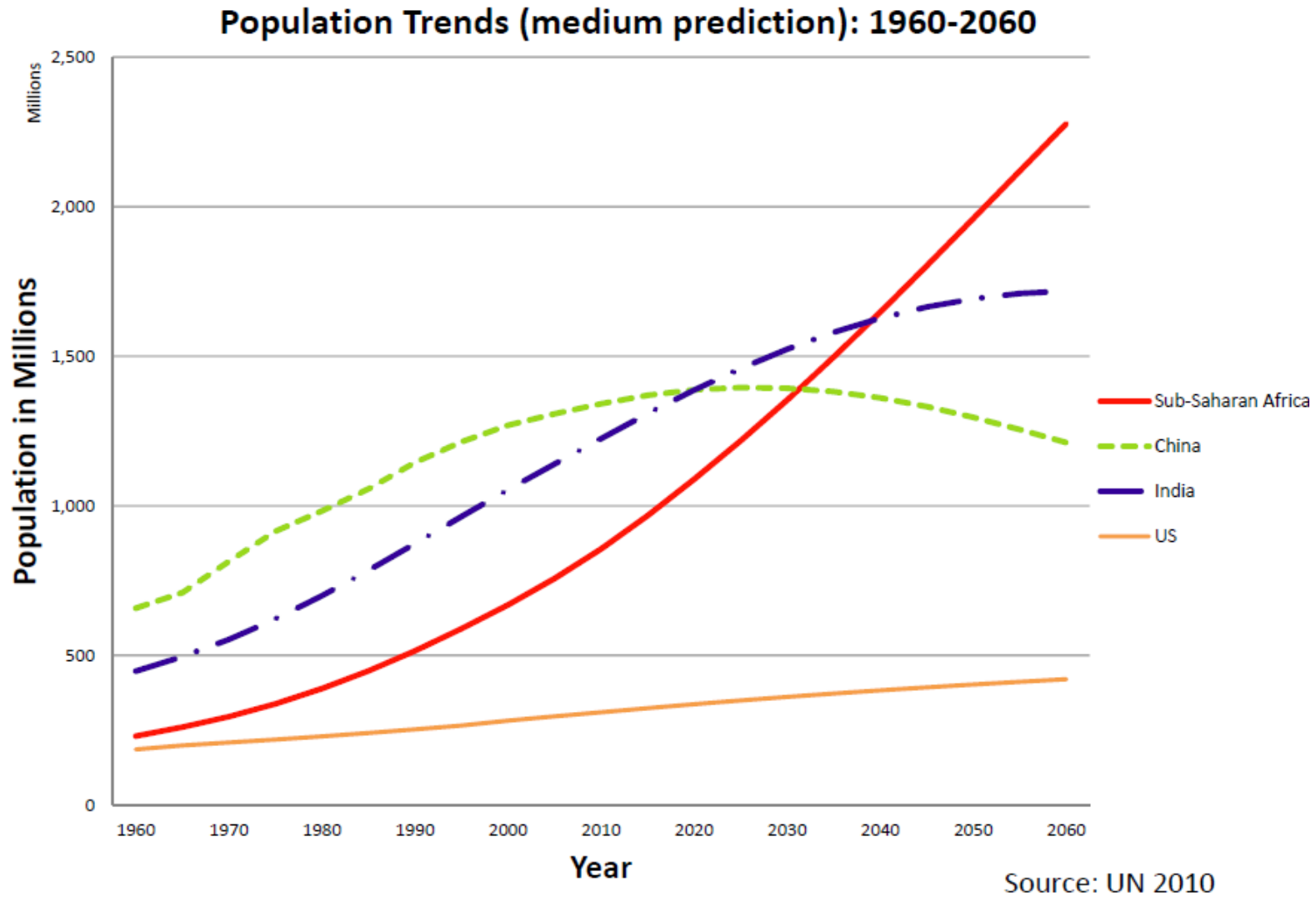
# African population is growing rapidly



# World map, area weighted by 2010 population

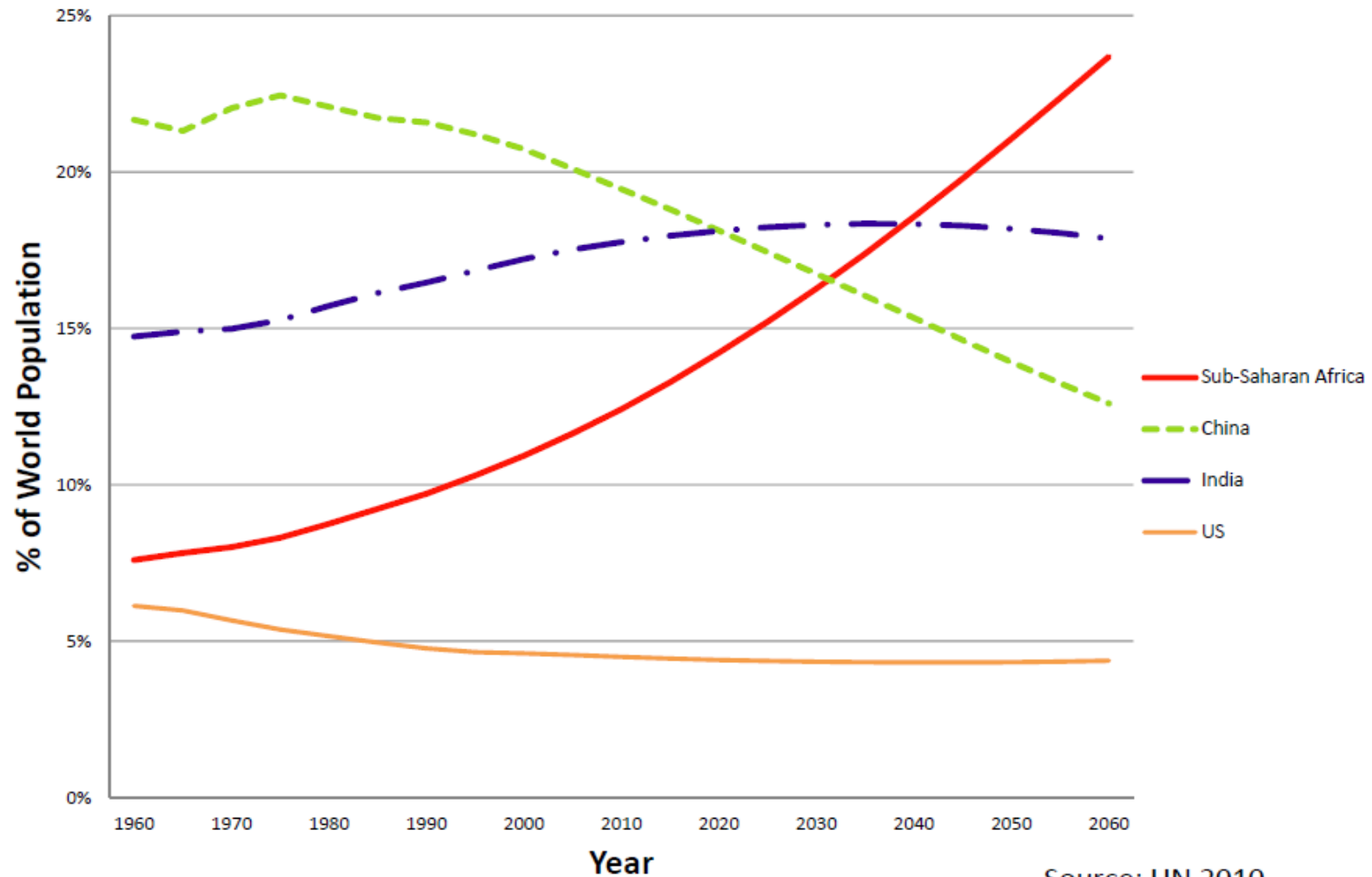


# African population is growing rapidly



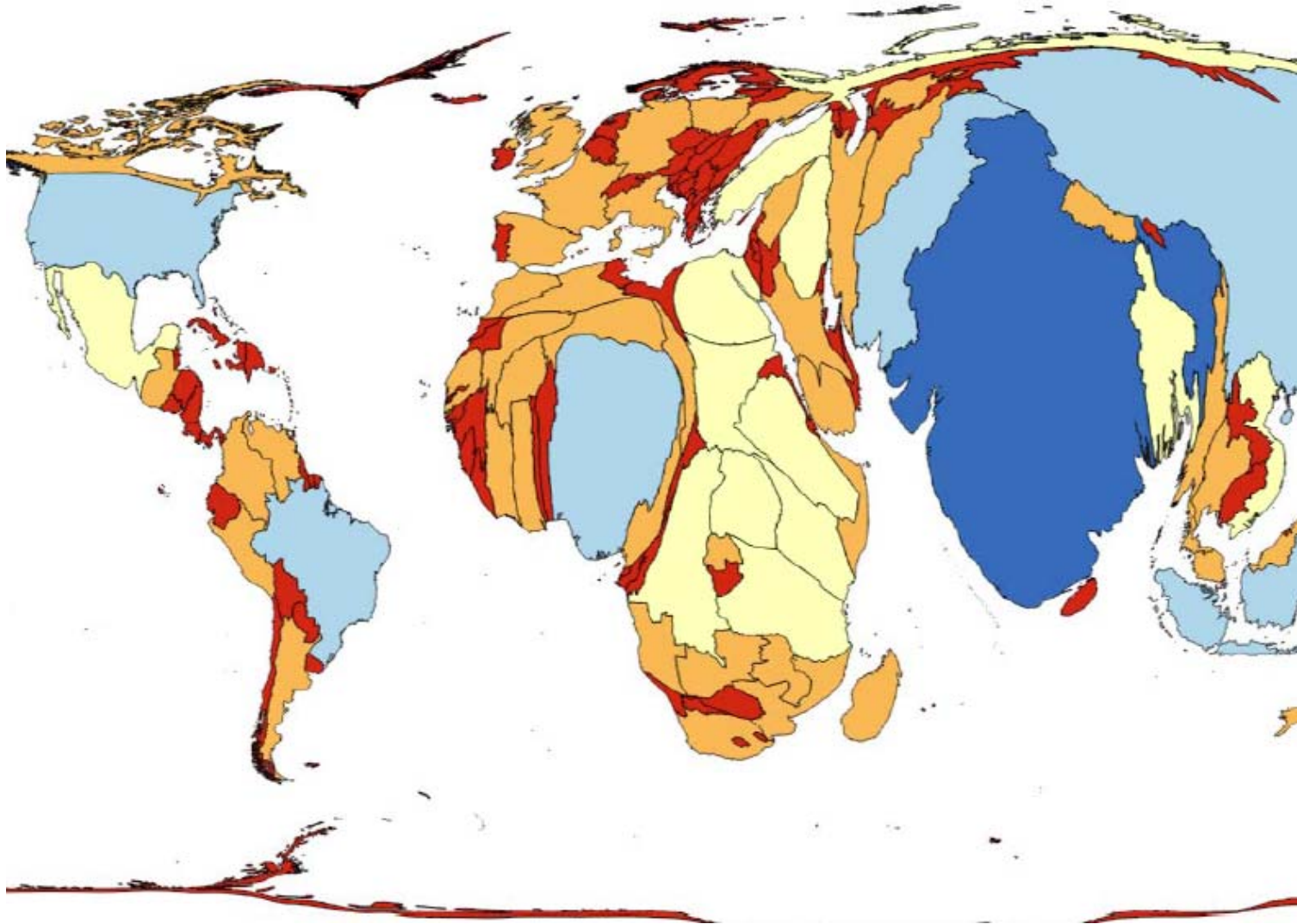
# African population is growing rapidly

Percentage of World Population (medium prediction): 1960-2060



Source: UN 2010

# World map, area weighted by 2060 population



# The coming African century

- A large share, roughly one third, of the world's working age population will be African by 2060.
- **How can public policy equip today's African children and youth with the tools they need to be productive tomorrow?**
- This matters just as much for the world economy as for particular African economies.
- Investments in both human capital and physical capital may be critical



# Ex. 3: Vocational education and youth earnings



## Ex. 3: Vocational education and youth earnings

- We are studying the impact of vouchers for vocational training (in public or private institutions) on human capital and labor market outcomes using a randomized experiment in Kenya (Hicks et al. 2013).

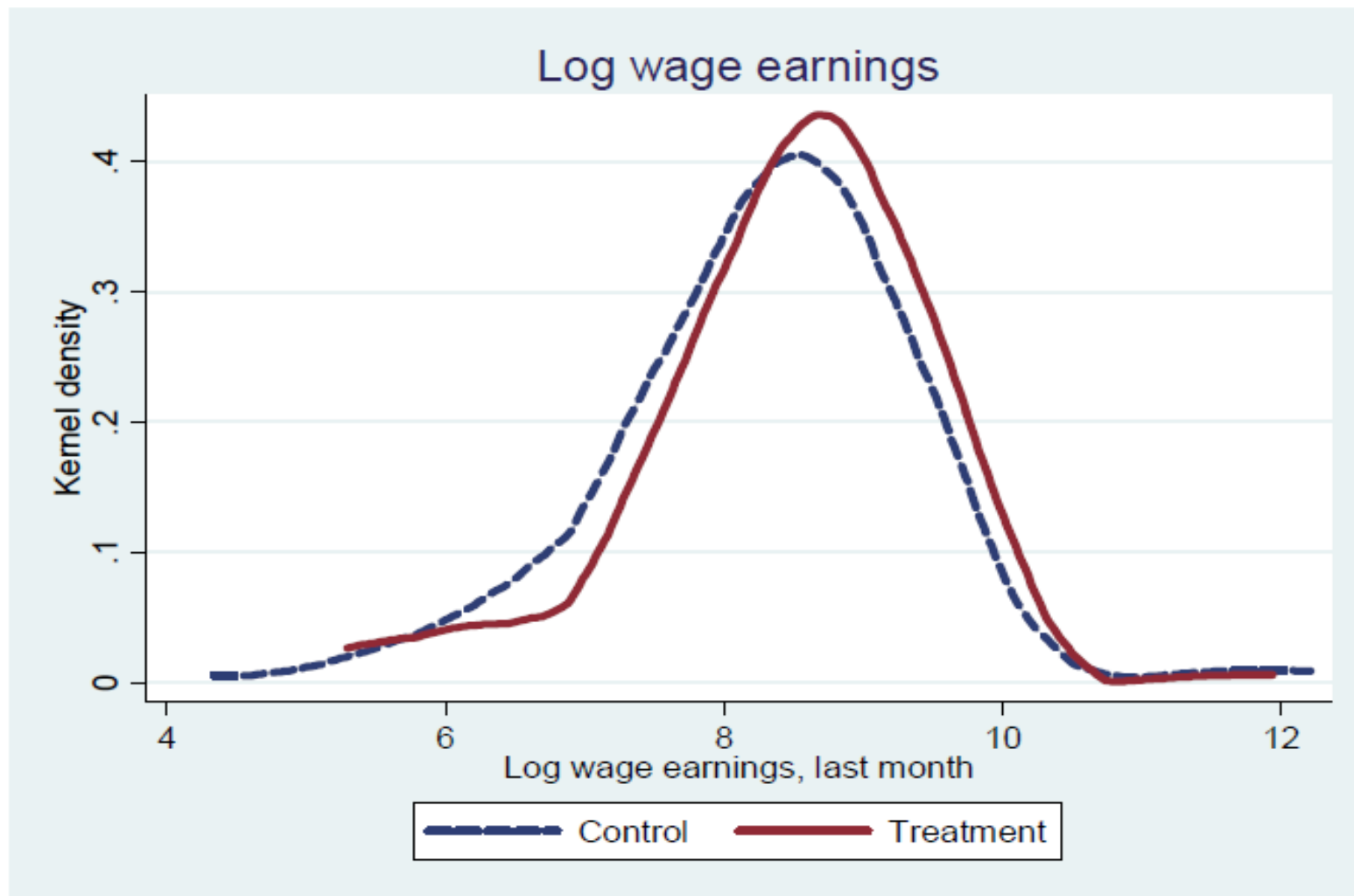
→ A more complicated research design: a “cross-cutting” experiment is also currently providing start-up capital for a random subset of participants in the training study.

## Ex. 3: Vocational education and youth earnings

- **Initial impact evaluation results are mixed**
- Take-up of the vocational vouchers was 70%, indicating high demand, and recipients had 0.60 years (s.e. 0.10) more vocational training relative to the control group.
- Significant gains in test performance: average gain across math and English tests was 0.107 (s.e. 0.050)
- 1-2 years later, assignment to a vocational education voucher did **not** significantly increase total earnings, consumption, self-employment, assets, urban migration
- But evidence of increased earnings for those working for wages, 26 log points (s.e. 11 log points), see next figure

# Ex. 3: Vocational education and youth earnings

Figure 1: Distribution of log wage earnings, voucher treatment versus control



## Ex. 3: Vocational education and youth earnings

- Caveats: results are new, relatively short-term, and more importantly, only use half of the final dataset (N=1,043).
- **Many open questions:** Why didn't more voucher winners leave agriculture, and/or start businesses?
- One possibility: are both human capital **and** financial capital necessary for small business success? Does this more intensive intervention lead to larger impacts? We will examine this in our next survey round (2015-16).
- Implication 3: complex programs with multiple components may be needed to overcome the main constraints facing African youth.

# African youth and development: looking forward

- Some **key issues** to keep in mind going forward:
  - (1) Complicated multi-arm programs demand correspondingly complex research designs
  - (2) Panel data over long periods is indispensable
  - (3) New data enables the study of broader social impacts
- There is still much to learn about critical issues, including how to most effectively **improve student learning**, and ultimately **productivity and earnings**.

# African youth and development: looking forward

- The human development of African youth is of critical importance to the global economy, but there remain many unanswered questions.
- The “answers” will likely differ across countries.
- Rigorous impact evaluation methods, tailored to the problem, can help us get where we need to go.

# EXTRA SLIDES



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