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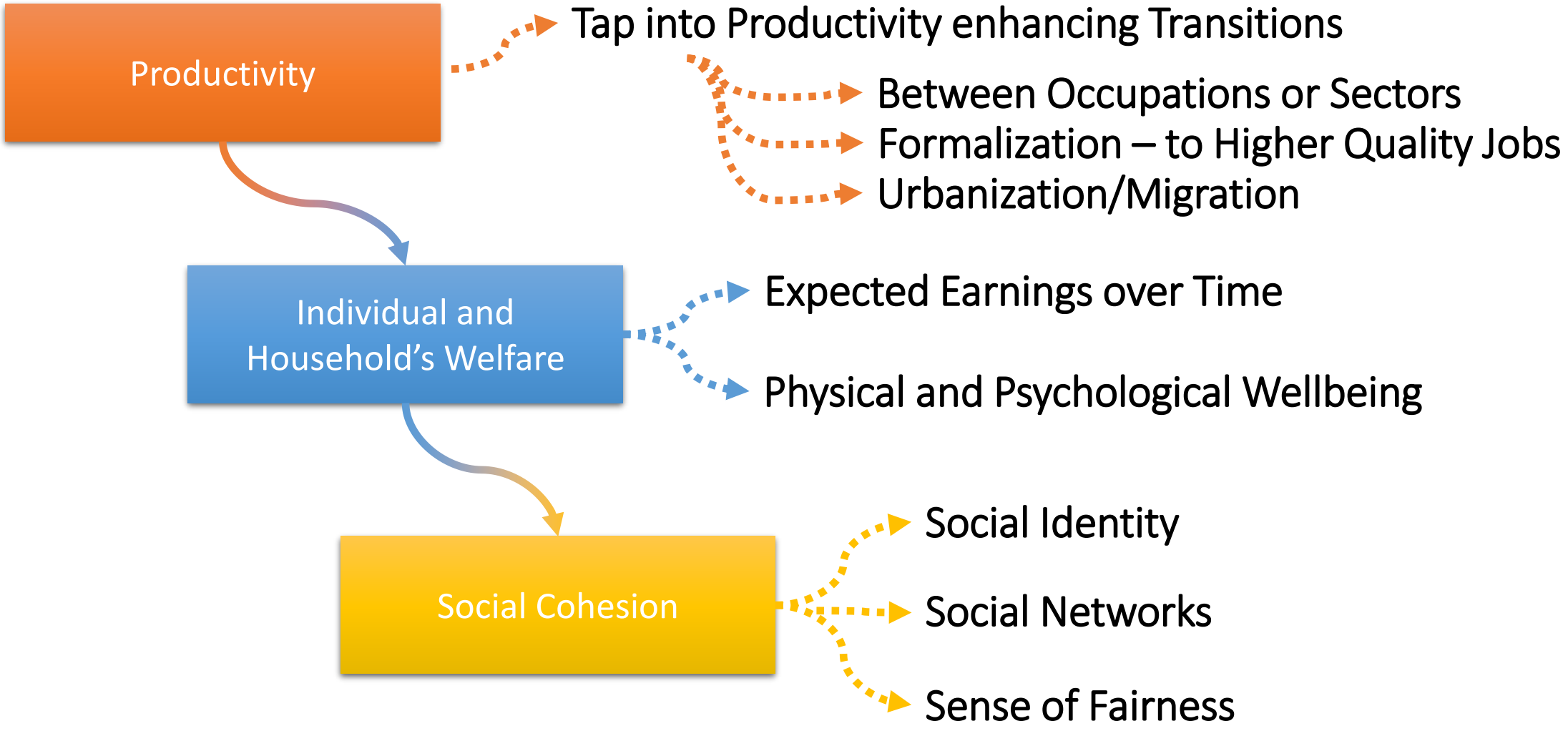
Social Protection & Jobs

Workers and Jobs

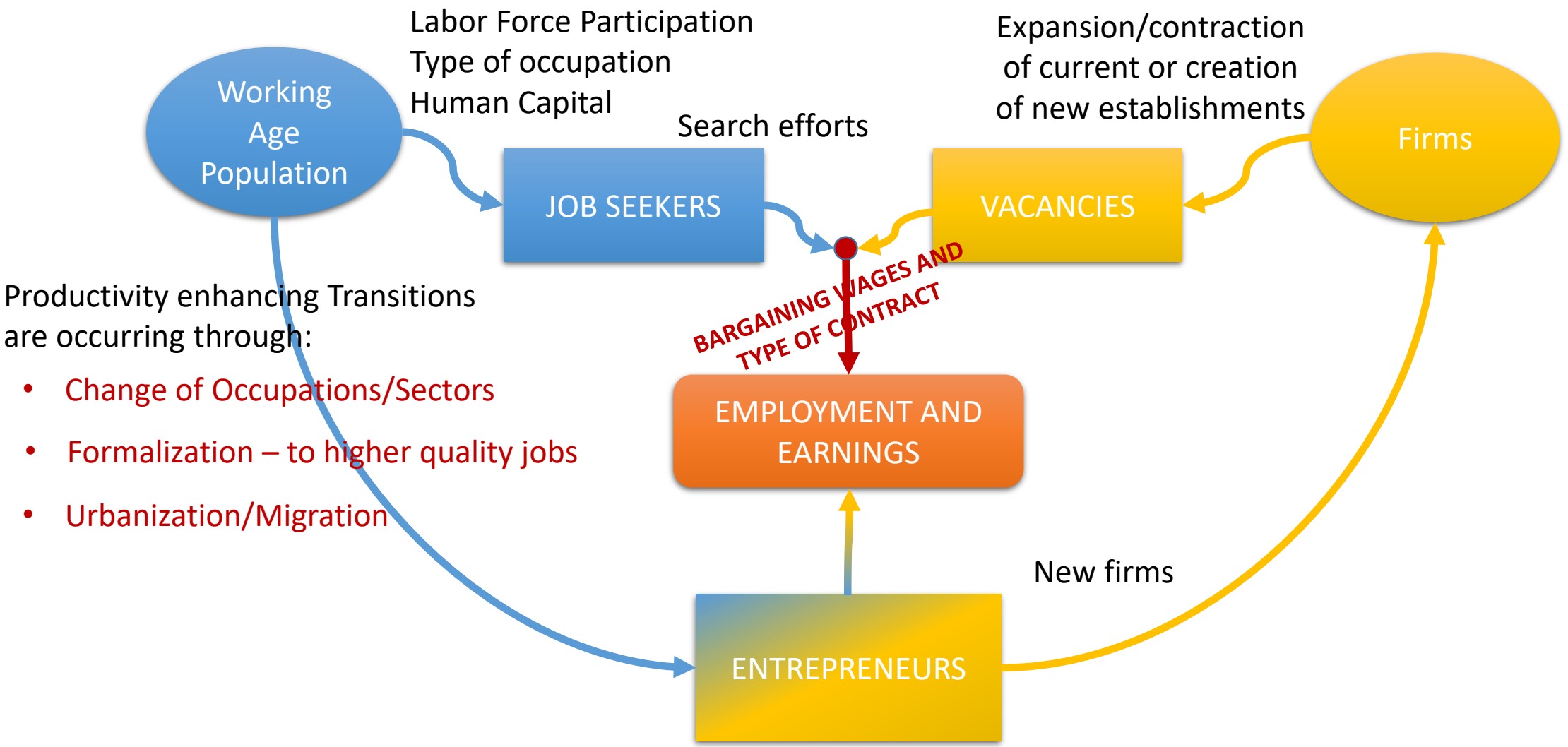
Guided Enquiry for Jobs Diagnostic Supply Side with Hands-On Examples

Michael Weber & Jörg Langbein
Jobs Diagnostic and Solutions
November 5, 2019

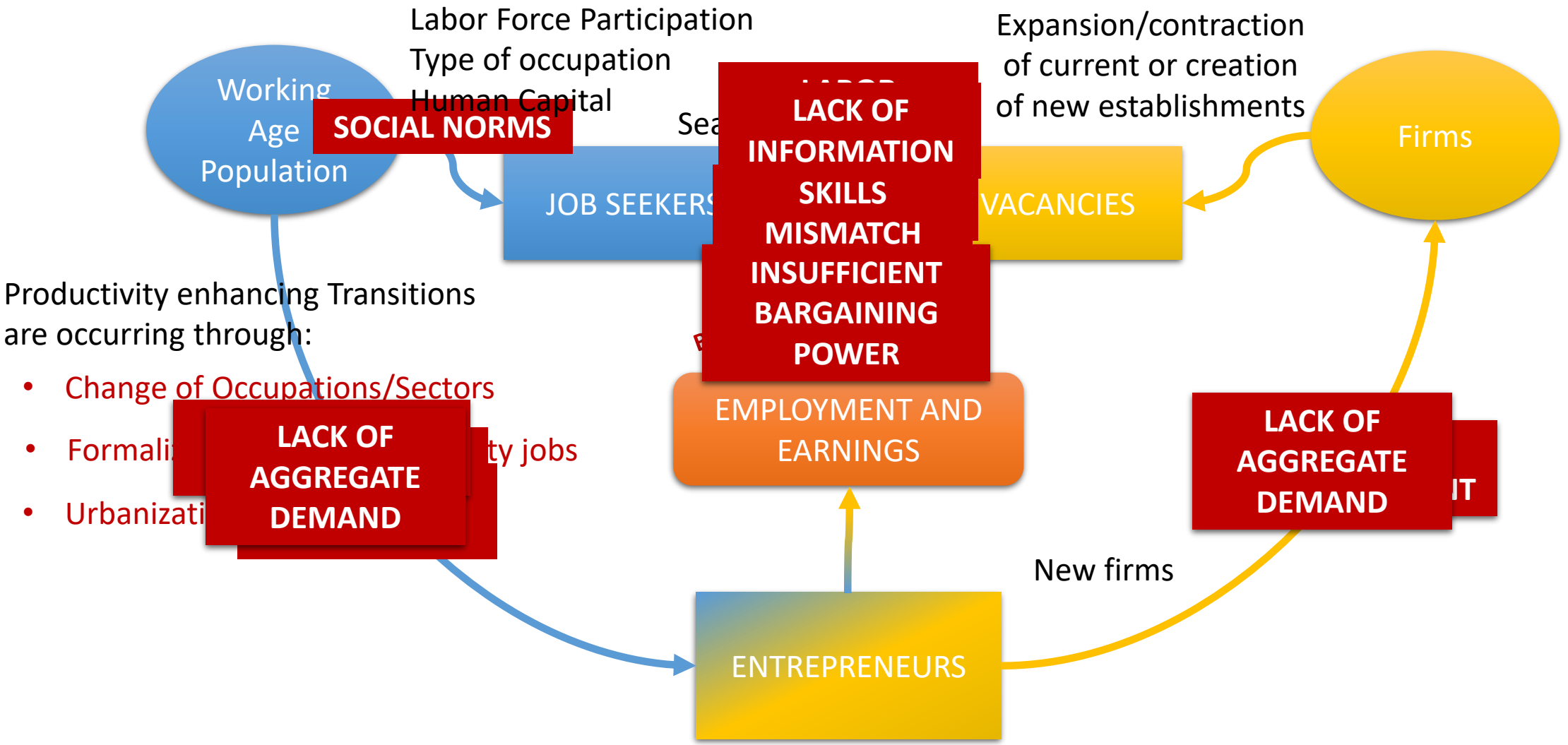
Jobs from a Worker's perspective



Workers respond to the demand for Labor



Workers respond to the demand for Labor but transitions are constrained



Guided Enquiry

A guided enquiry for the jobs diagnostic – supply side

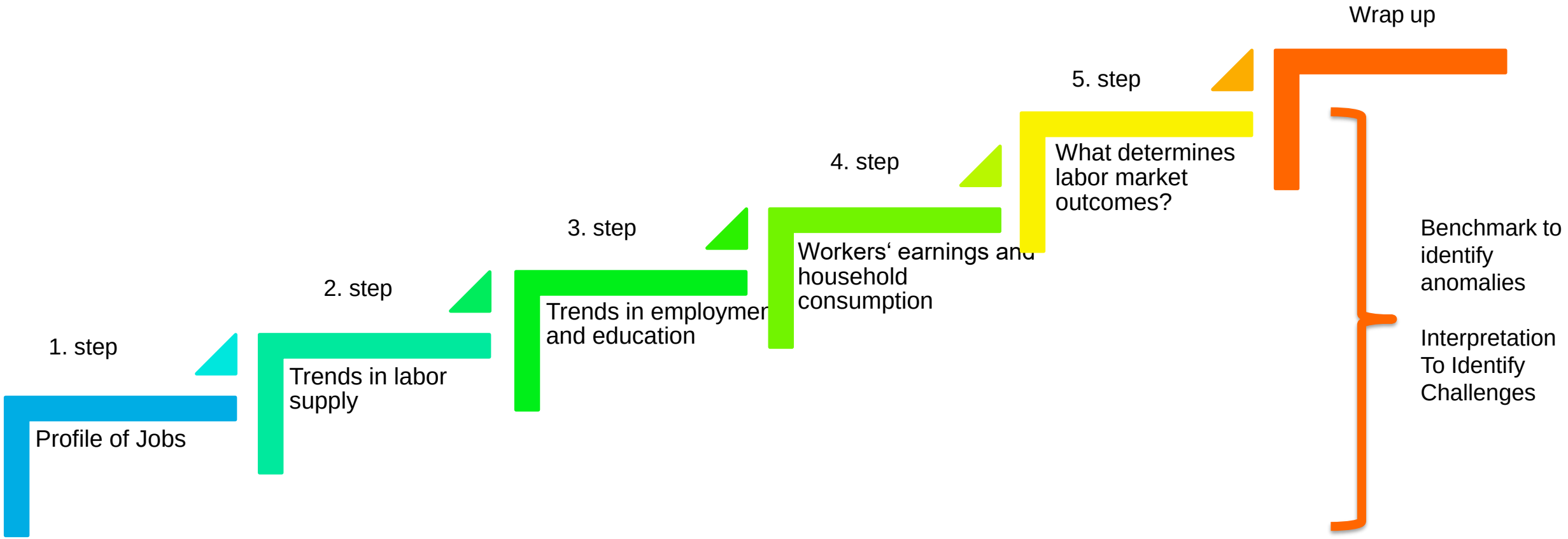
uses labor force and other household surveys

maps the profile of the workforce

observes trends over time and points to anomalies through cross-country comparisons

examines anomalities specifically looking into labor market rigidities and structural constraints

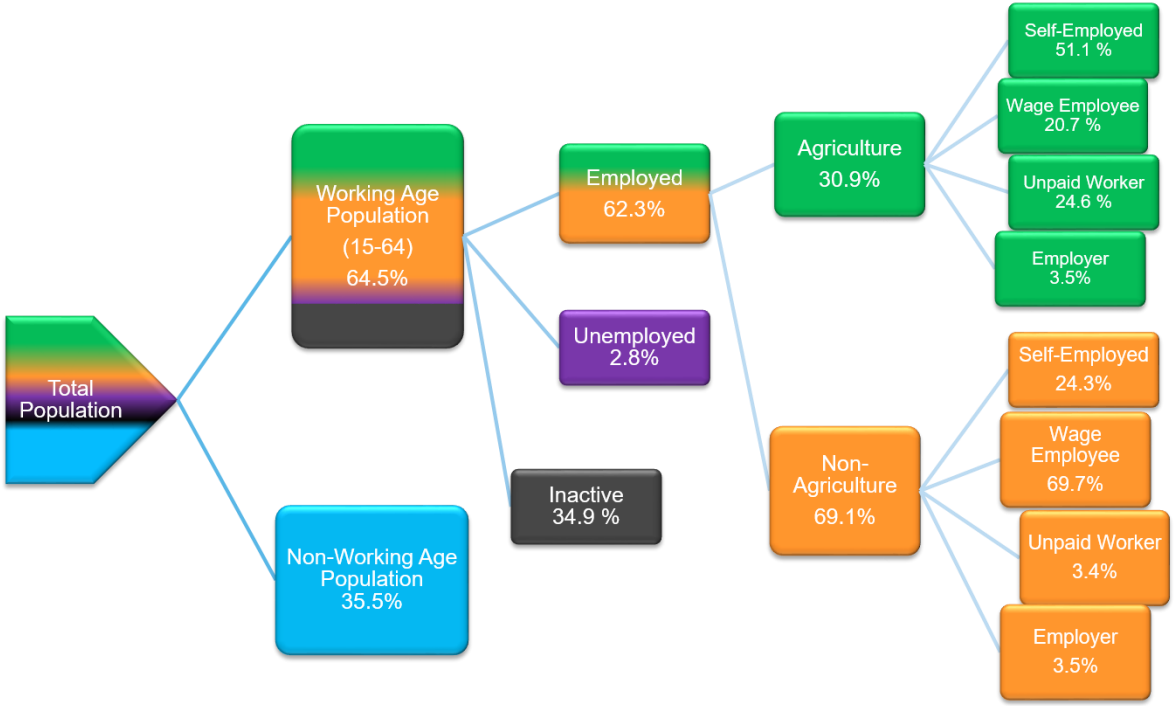
Step-wise guided enquiry – Supply side



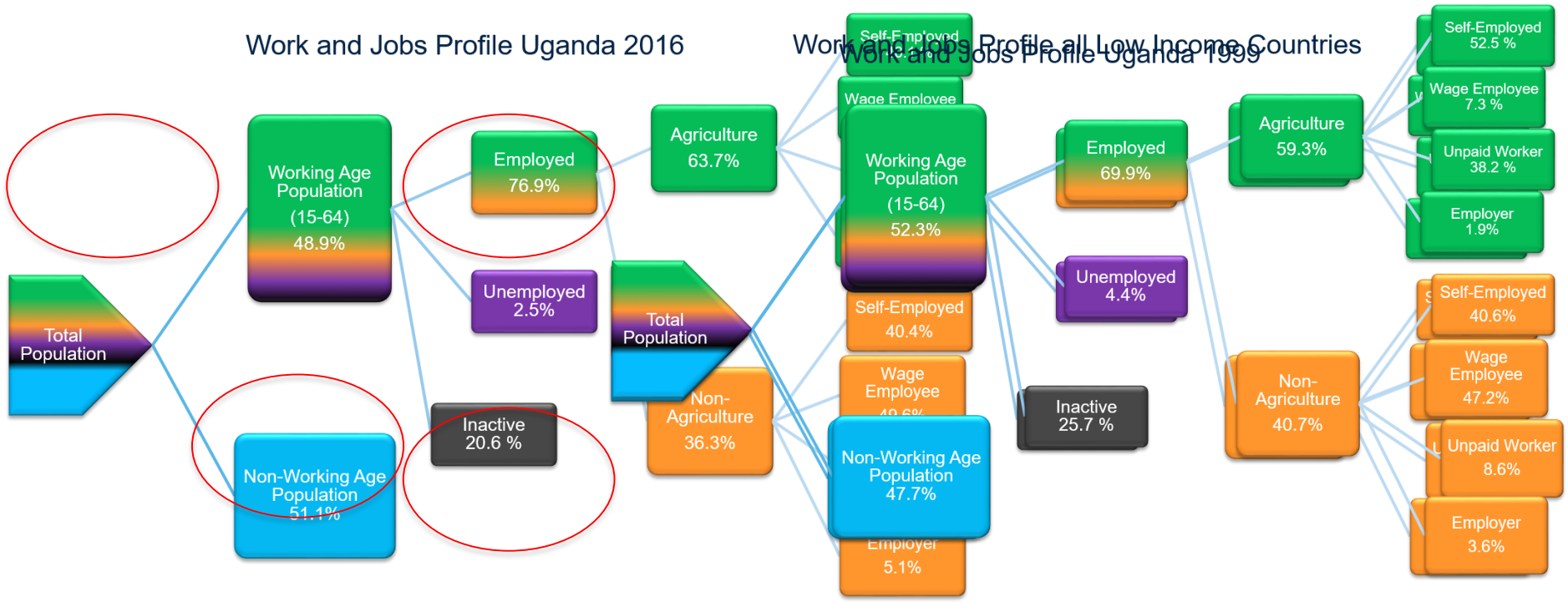
Step 1: What is the profile of jobs and work in the economy?

- Provides the structure of the workforce and jobs held in the country
- Using past trends helps to infer how economic transformation *should be* affecting job transitions

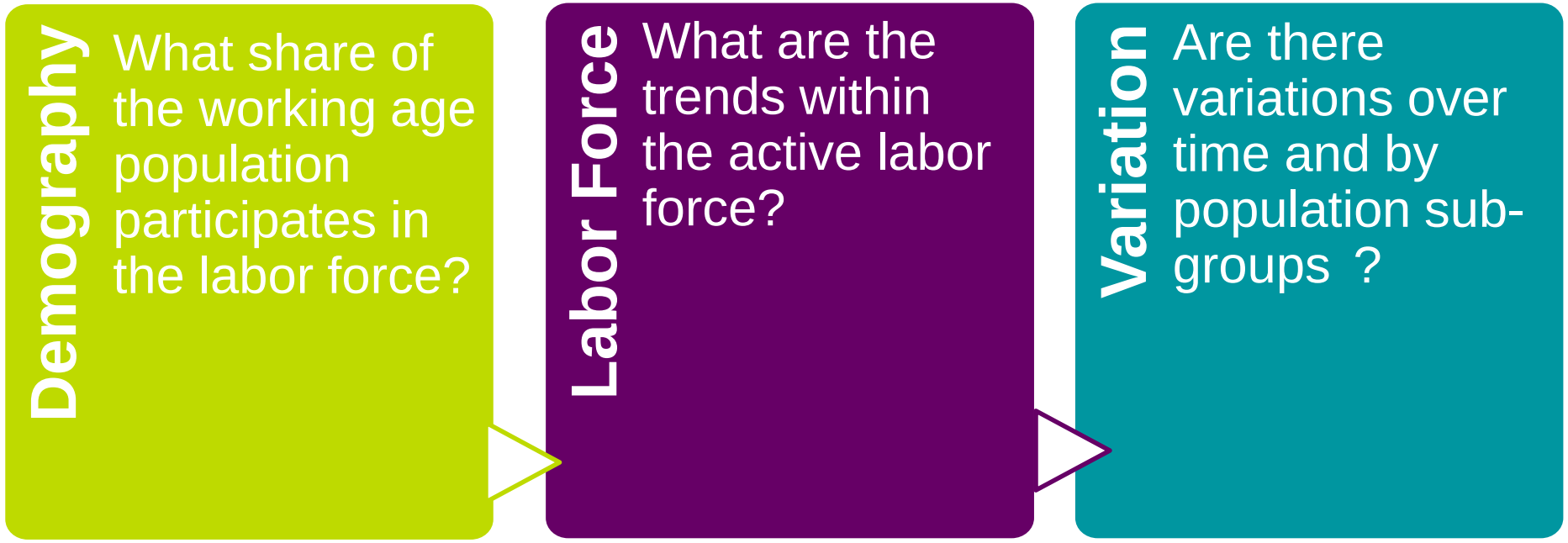
Example for Low and Middle Income Countries:



Example of Step 1: Profile of Jobs in Uganda

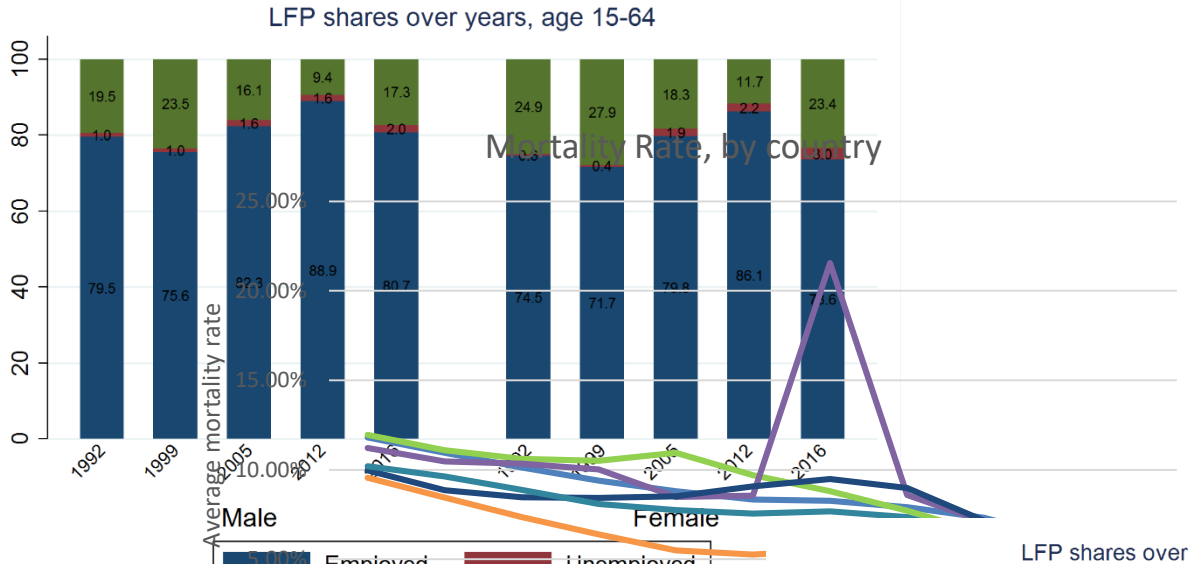


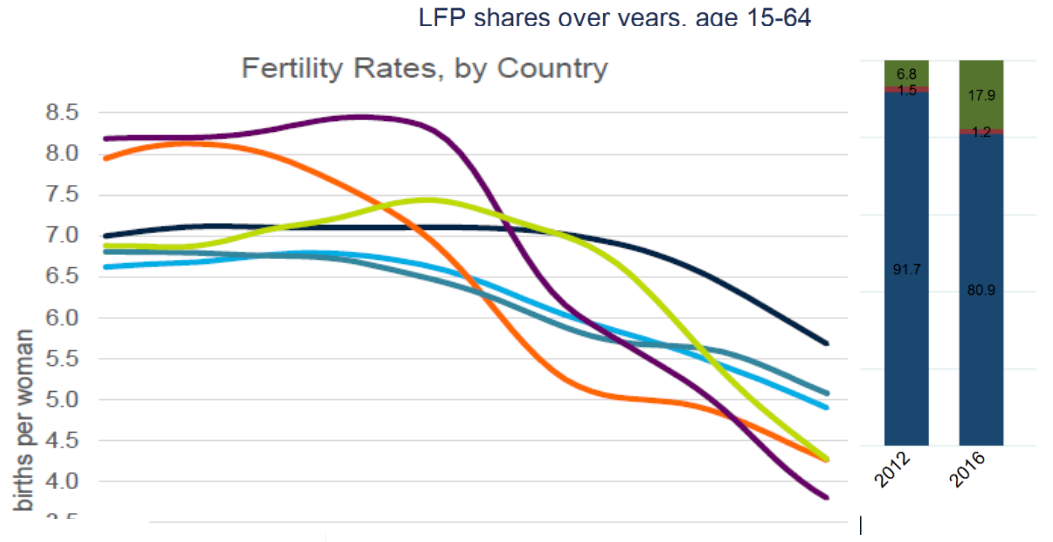
Step 2: What is the trend in labor supply and how is it related to the country's demography?

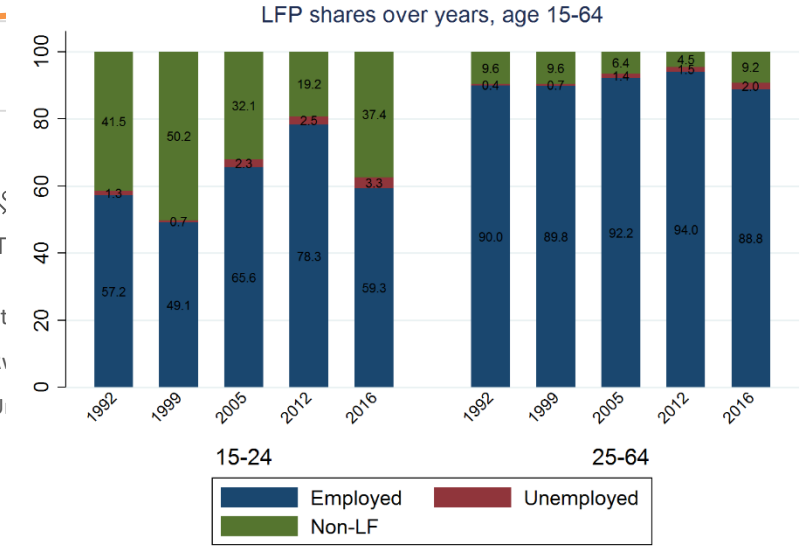


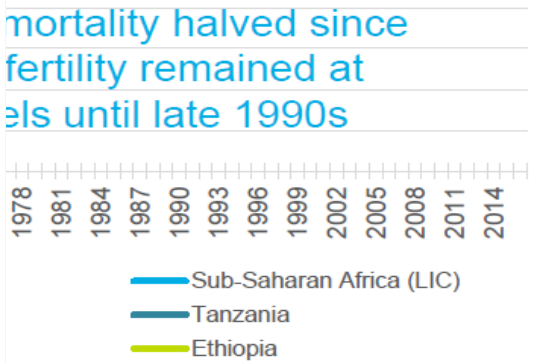
Indicators:

Example of step 2: Trends in labor supply and Uganda's demography









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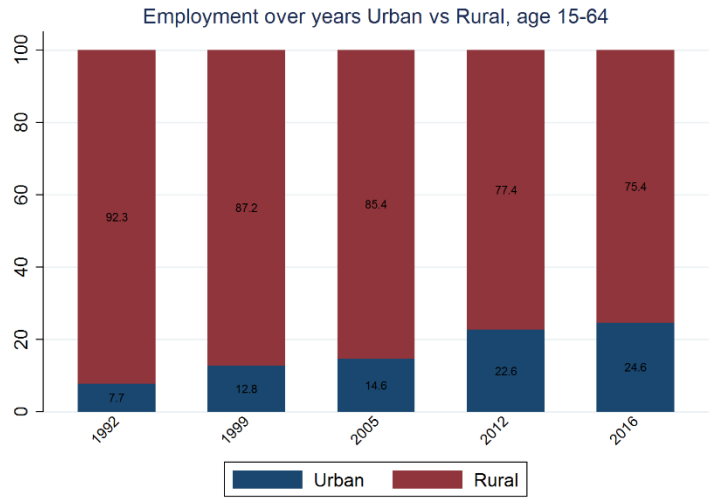
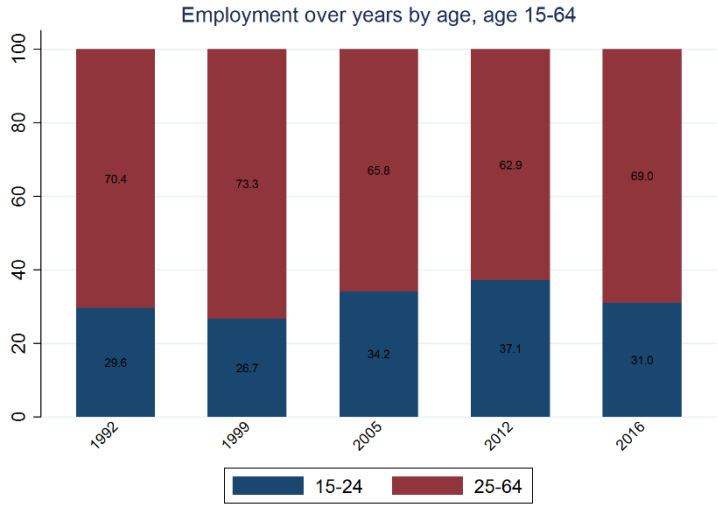
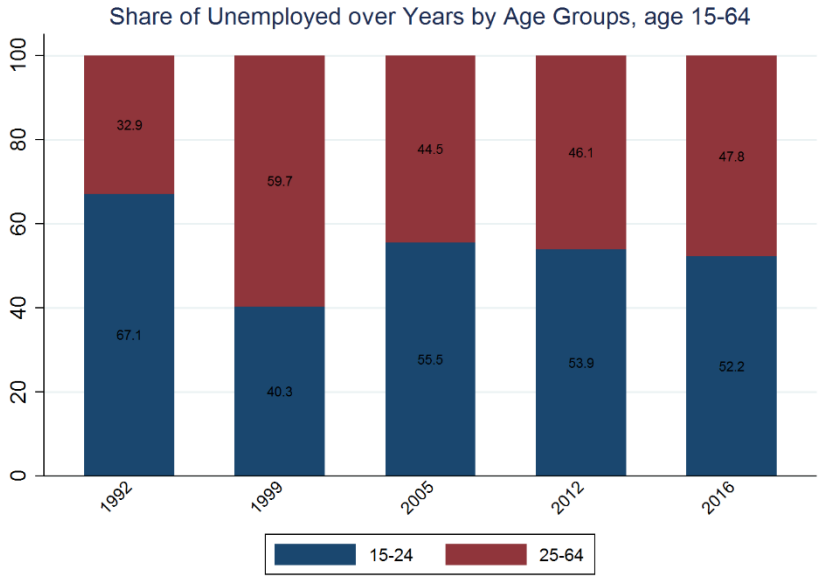
Example of step 2: Trends in labor supply and Uganda's demography







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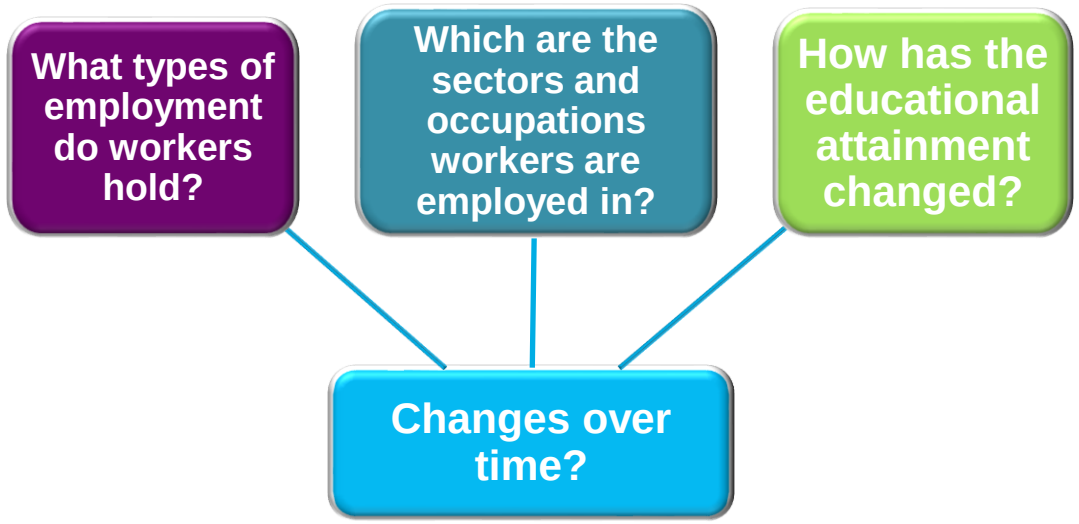
Step 3: What are the trends in employment and education?

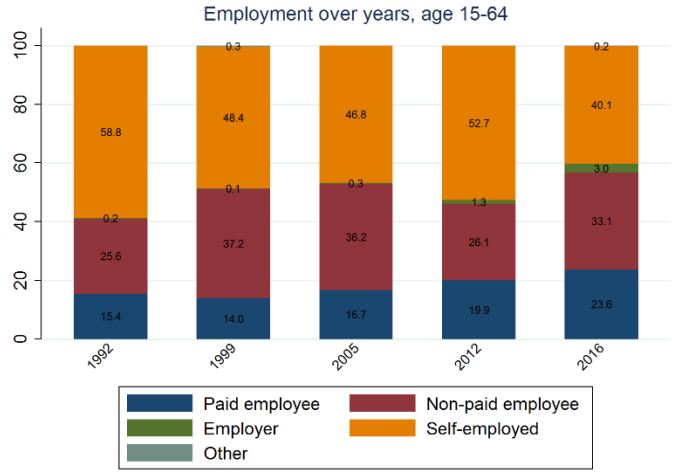


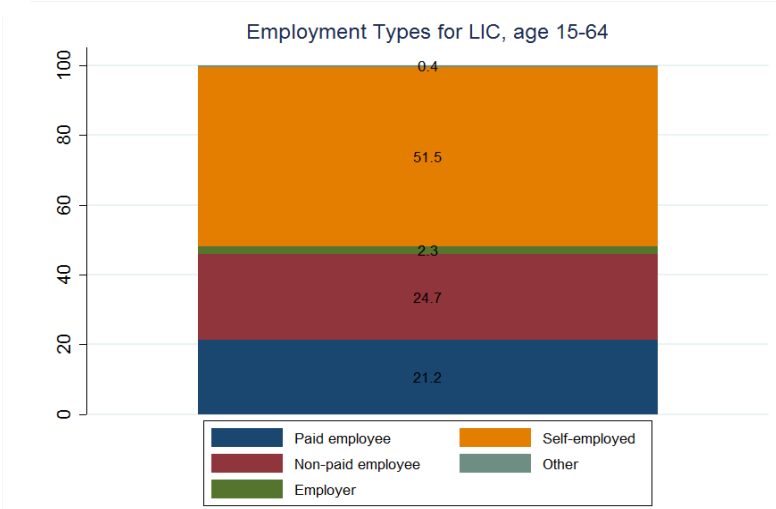
Indicators:

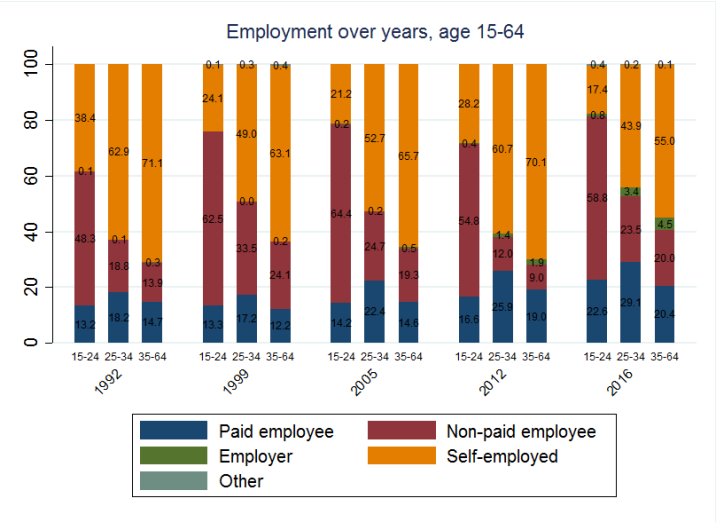
- Share of employment types
- Share of (in)formality
- Shares of industry sectors and occupation
- Share of educational attainment

Overall; disaggregated by age, gender, regions, education, and area; (if possible) comparison over time

Example of step 3: What are the trends in employment and education?







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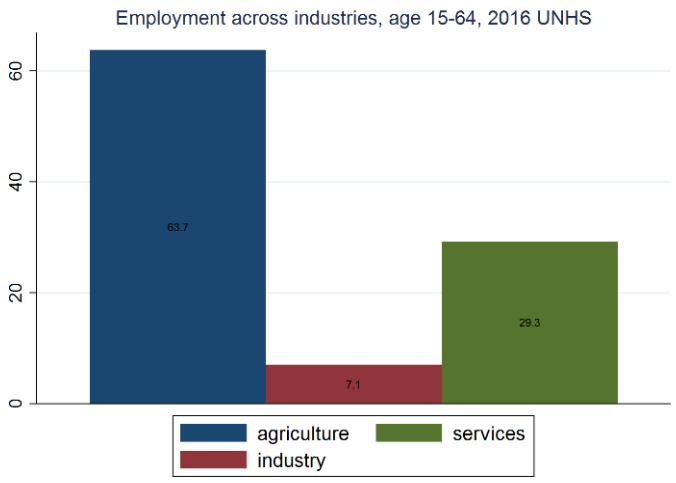
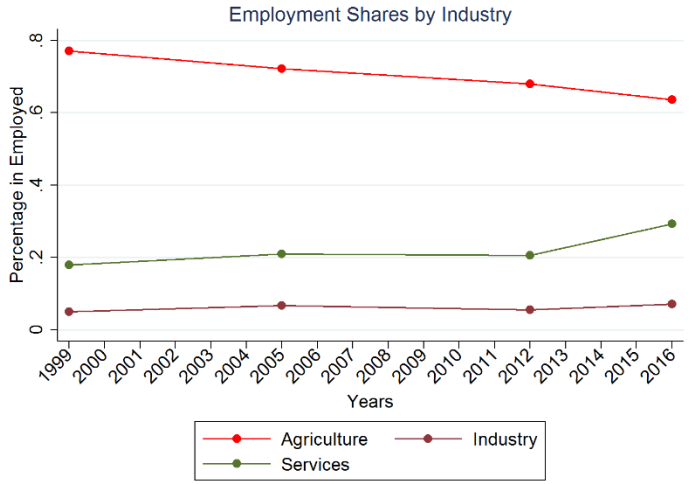
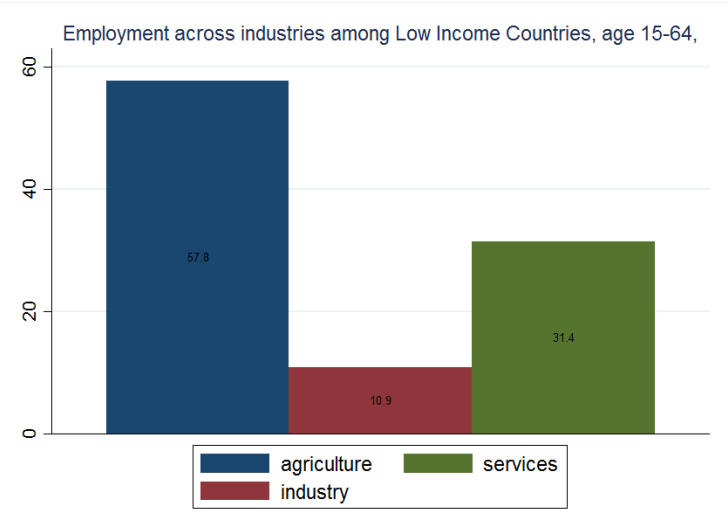
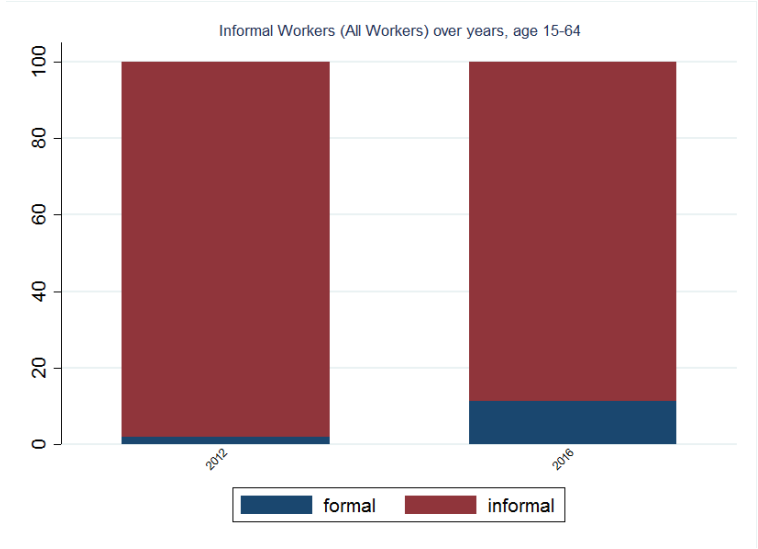
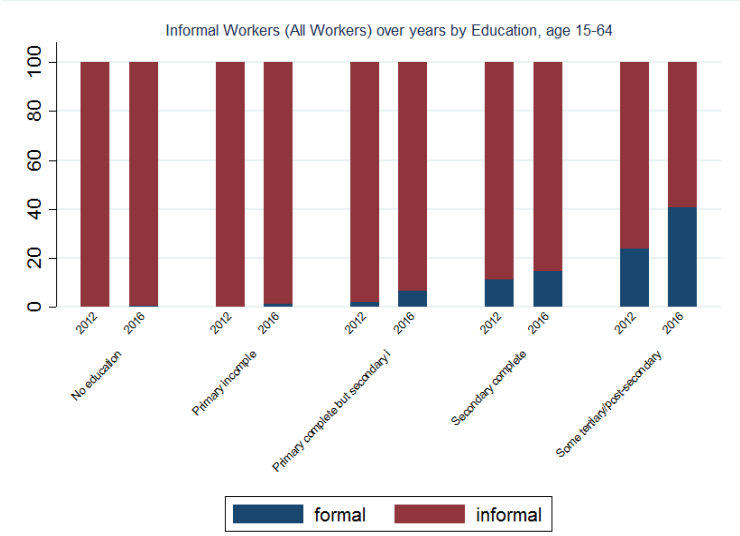


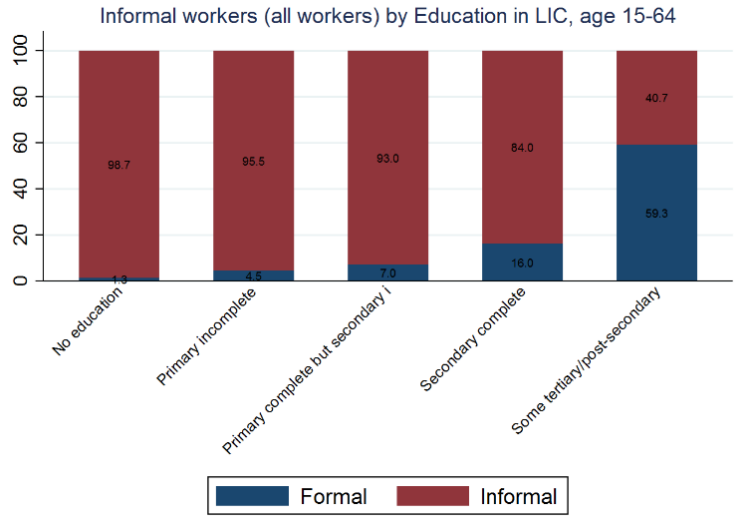




Example of step 3: What are the trends in employment and education?







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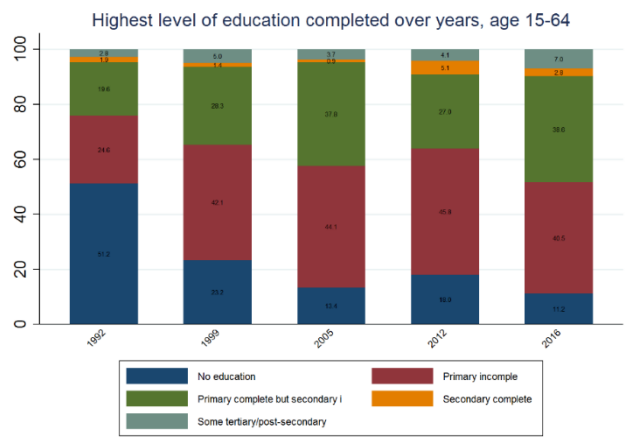
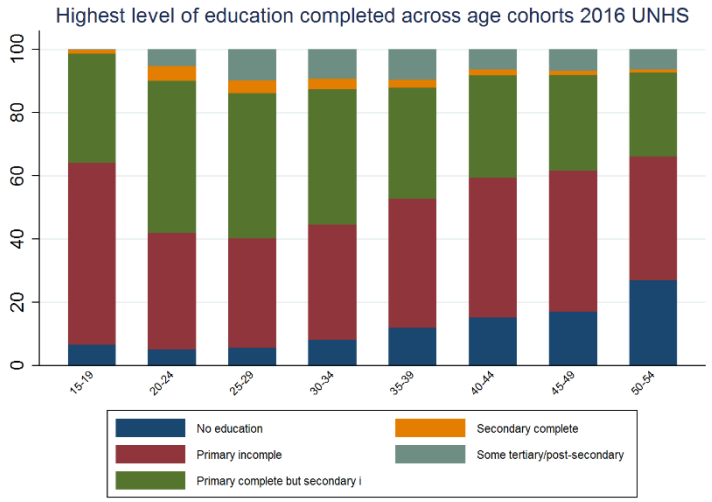
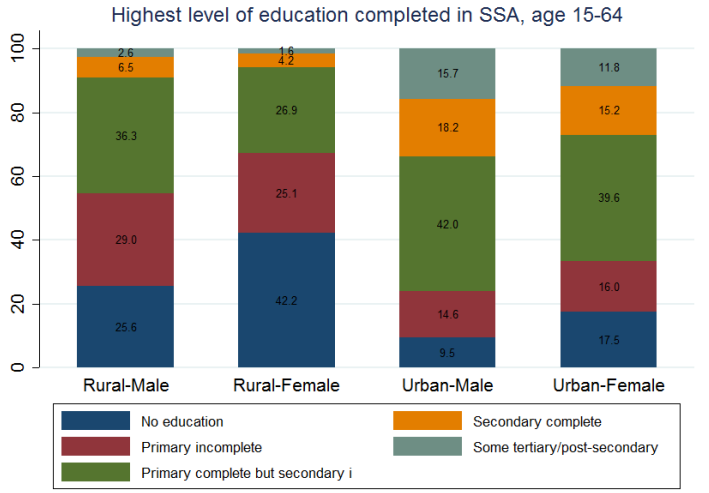
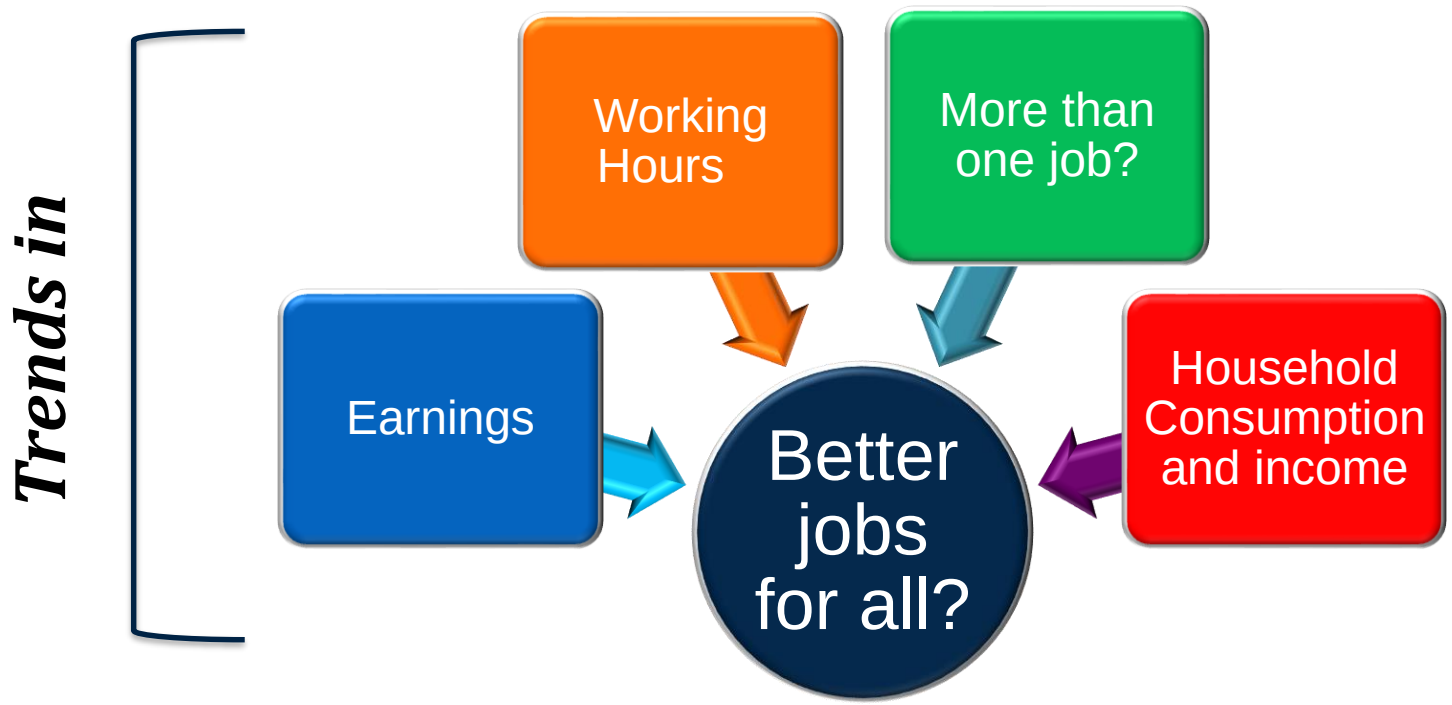






Step 4: How much do workers earn and how do labor market outcomes compare across households?

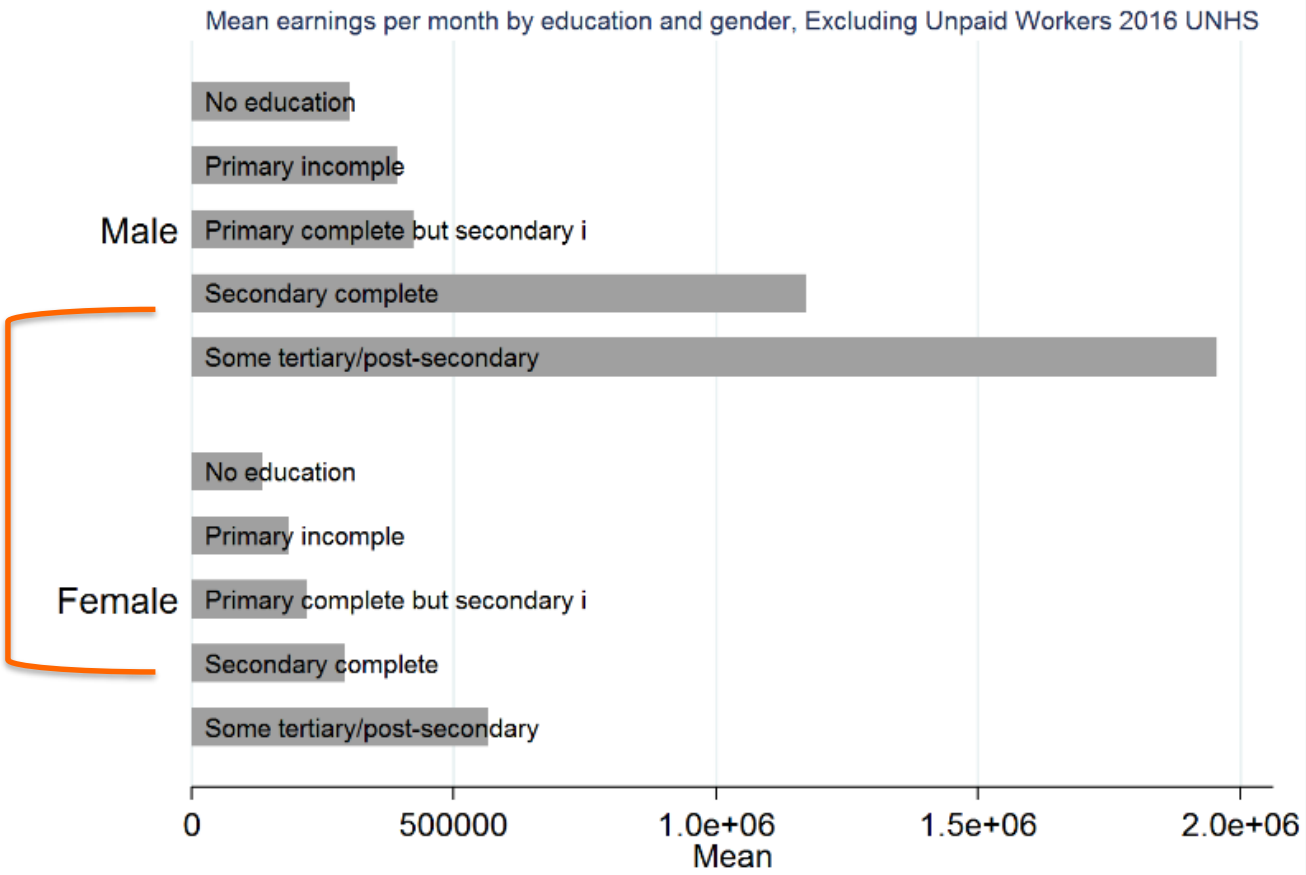


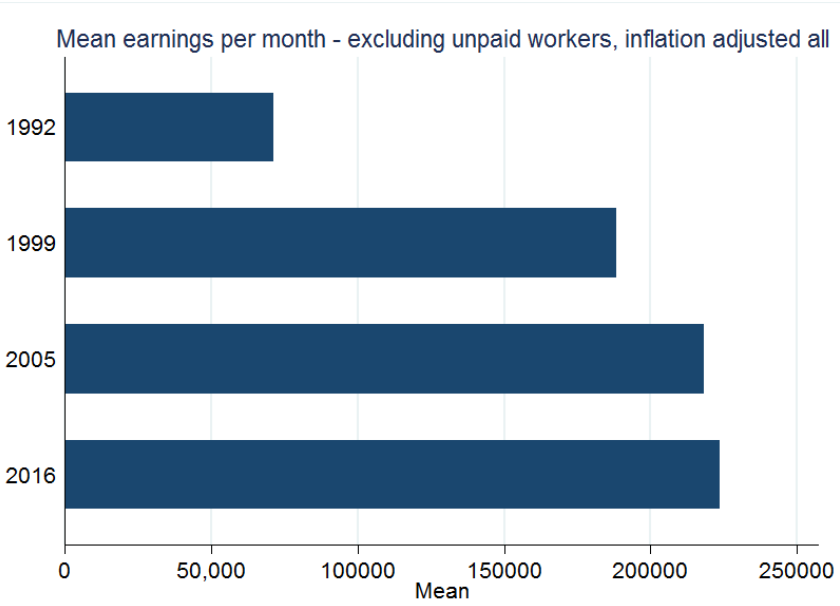
Indicators:

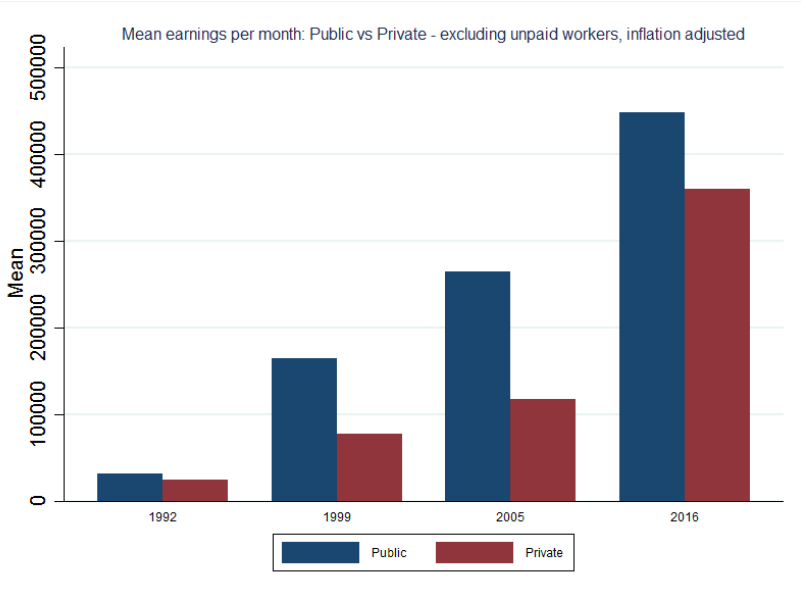
- Mean of hourly/monthly earnings
- Mean of working hours
- Share of workers with secondary job: Overall, (if possible) comparison over time
- Consumption and income deciles per household

Overall; disaggregated by age, gender, regions, education, and area; (if possible) comparison over time

Example of step 4: Workers' earnings and comparison of further labor market outcomes?







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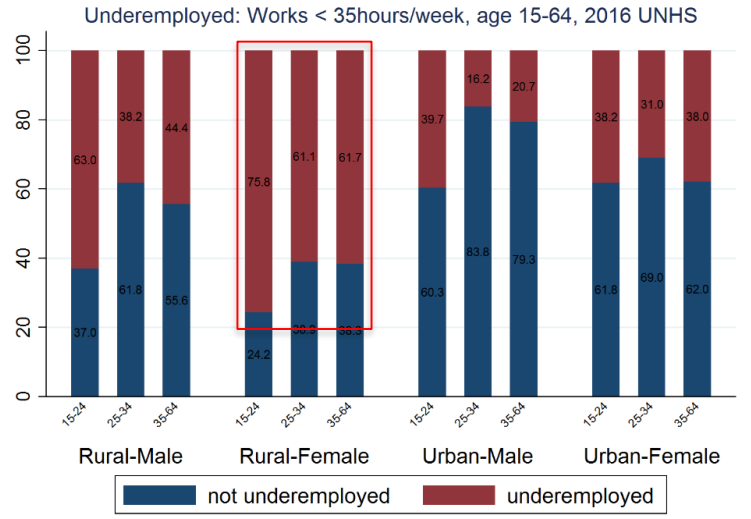
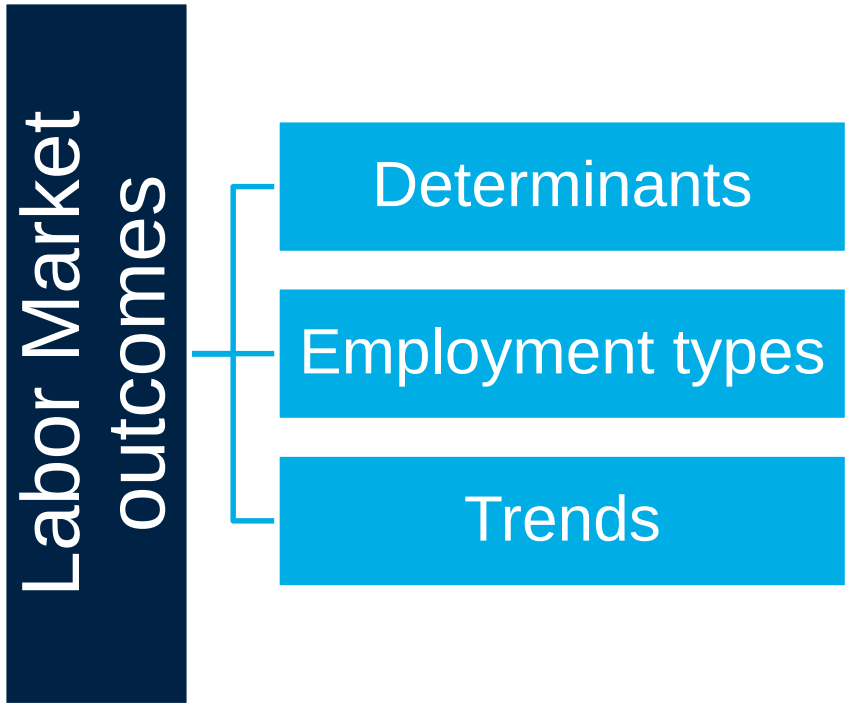


Step 5: Which worker characteristics determine labor market outcomes?



Indicators:

Probability of employment, unemployment and inactivity

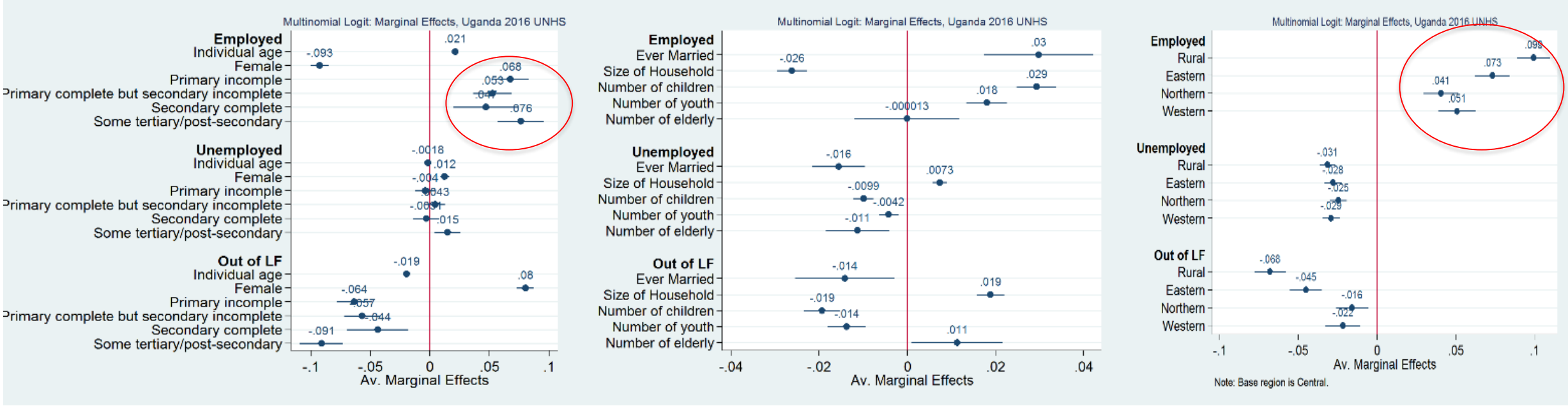
Probability of wage/formal/public/non-agricultural employment

Hourly/monthly earnings regression

controlling for age, gender, marital status, area, education, household size, Number of children, young and older household members, region

controlling for age, gender, marital status, area, education, household size, Number of children, young and elder household members, region, sectors (broad definition), occupations, formality status, work contract

Example of step 5: Which worker characteristics determine labor market outcomes?



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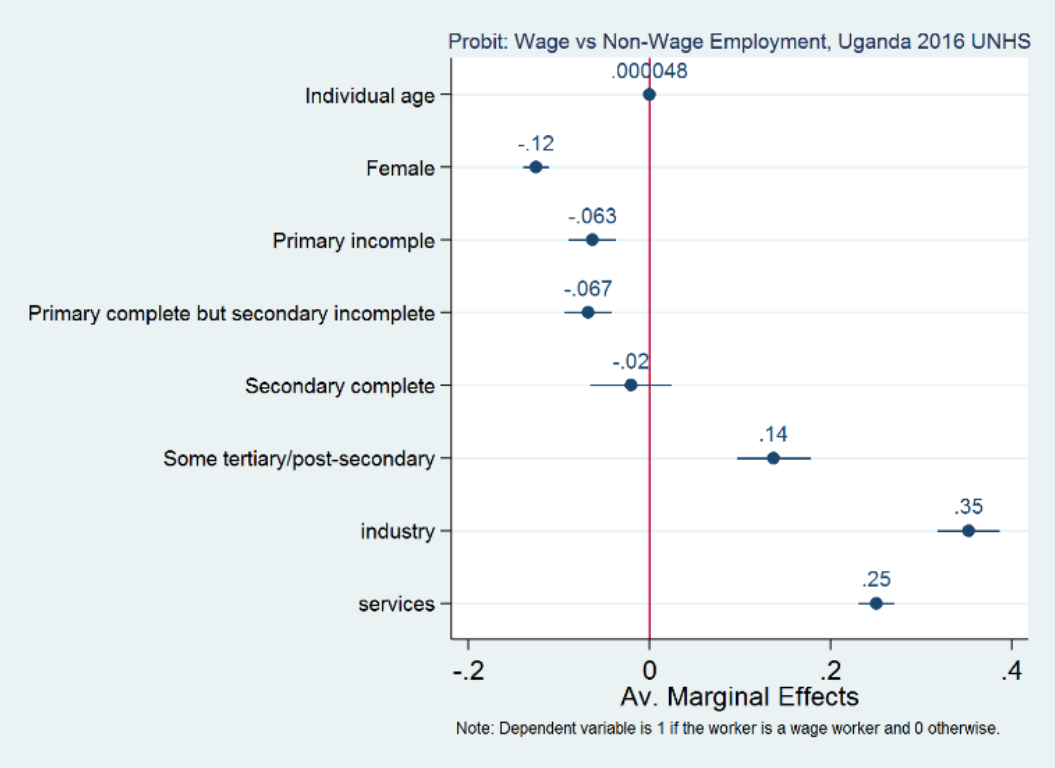
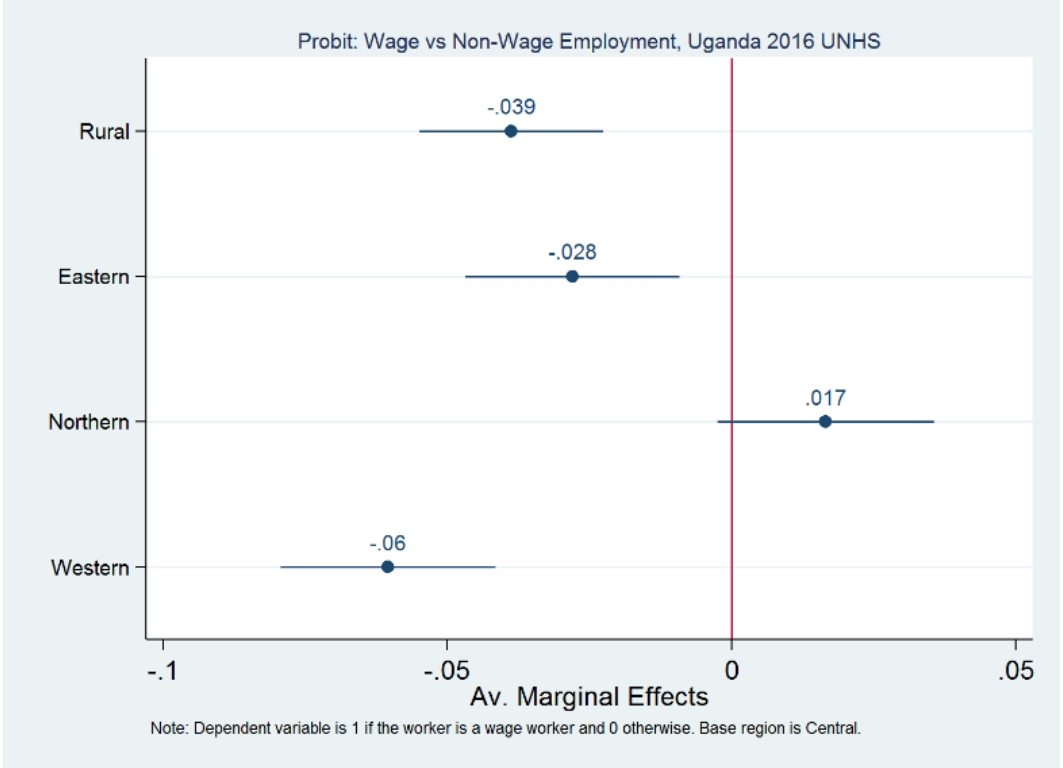




Example of step 5: Which worker characteristics determine labor market outcomes?

Mincerian wage regression

	2005	2012	2016
Female	-0.394***	-0.419***	-0.643***
	(-9.21)	(-8.01)	(-16.53)
Individual age	0.0931***	0.0600***	0.0792***
	(8.24)	(3.35)	(7.81)
Age Squared	-0.00108***	-0.000667***	-0.000866***
	(-6.93)	(-2.61)	(-6.75)
No education		*Base*	
Primary incomplete	0.120*	0.0990	0.126*
	(1.68)	(1.05)	(1.81)
Primary complete but secondary incomplete	0.418***	0.213**	0.353***
	(5.39)	(2.17)	(4.91)
Secondary complete	0.661***	0.547***	0.850***
	(4.57)	(4.44)	(6.00)
Some tertiary/post-secondary	1.018***	0.873***	0.817***
	(10.45)	(5.84)	(6.81)
Rural	-0.213***	-0.265***	-0.276***
	(-5.00)	(-3.79)	(-6.55)
Central		*Base*	
Eastern	-0.181***	-0.0890	-0.383***
	(-2.93)	(-0.99)	(-7.19)
Northern	-0.433***	-0.175**	-0.524***
	(-9.17)	(-2.51)	(-9.74)
Western	-0.290***	-0.330***	-0.804***
	(-5.12)	(-4.58)	(-14.85)
Skilled agriculture		*Base*	
Senior officials	1.177***	0.766***	1.267***
	(3.91)	(3.58)	(5.22)
Professionals	0.920***	0.120	0.609**
	(7.47)	(0.77)	(2.48)
Technicians	0.435***	0.0121	0.769***
	(4.55)	(0.07)	(4.60)
Clerks	0.336***	0.102	0.429
	(2.94)	(0.59)	(0.96)
Service and market sales workers	0.0205	-0.216	0.572***
	(0.21)	(-1.46)	(4.69)
Craft workers	0.438***	0.314**	0.454***
	(3.93)	(2.08)	(3.33)
Machine operators	0.504***	0.635***	0.682***
	(4.78)	(3.58)	(5.05)
Elementary occupations	-0.0120	-0.223*	0.398***
	(-0.15)	(-1.76)	(3.92)
Sector controls	Yes	Yes	Yes
Observations	2334	2436	8157

Step 6: Interpretation

Benchmarking

Compare with similar countries (same income group, jobs typology etc.)

Syndromes

Combine the syndromes to identify underlying problem

Control group of succesful workers

Do comparisons by socio-demographic characteristics for different worker types

Example of step 6: Summary and Interpretation

- Ugandas Labor Force is growing quickly.

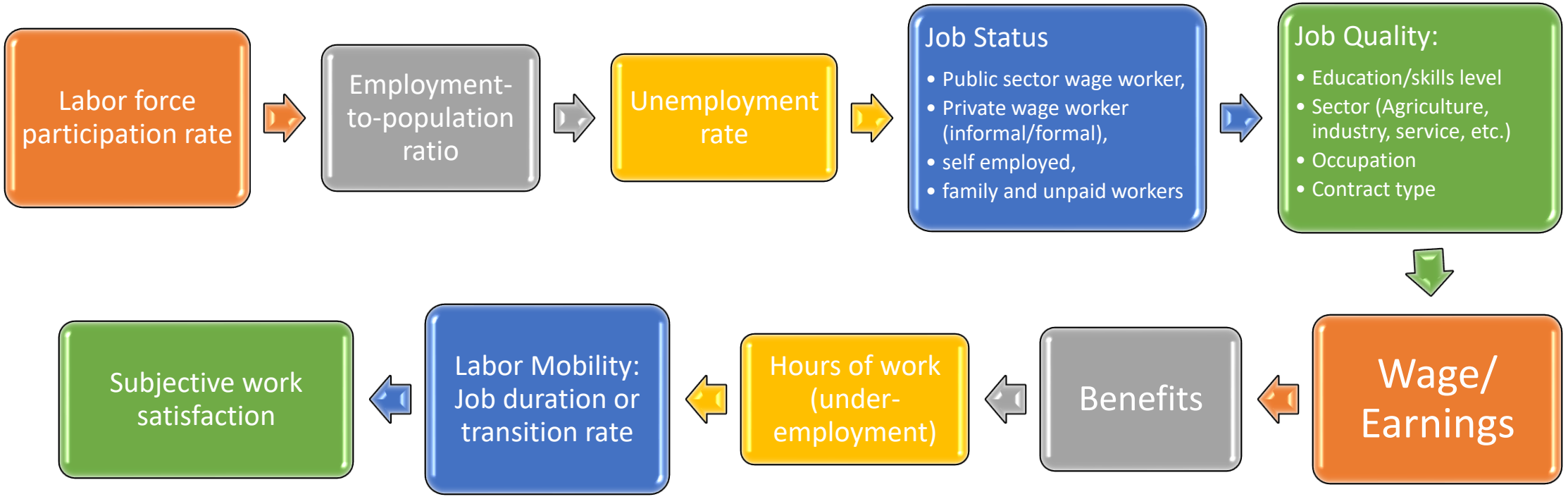
- Most jobs are on farms and most youth join the workforce on farms. Most off farm work is informal. Waged work is rising over time, but mostly informal.

- Share of self-employment has been falling over recent years. It is ower than in other LIC. Unpaid work seems to be increasing though, also in comparison to other LIC.

- New workers who tend to have completed primary schooling raise the average workforce education. However, mean earnings are stagnating. So are returns to highest education levels – a declining skills mismatch?

- Hourly earnings are falling fastest in services where hours worked are rising. This suggests that the recent move out of agriculture (2012-2016) cannot be explained by higher productivity within services, something that can be further explored in the macro-analysis.

Ten Key Labor Market Indicators



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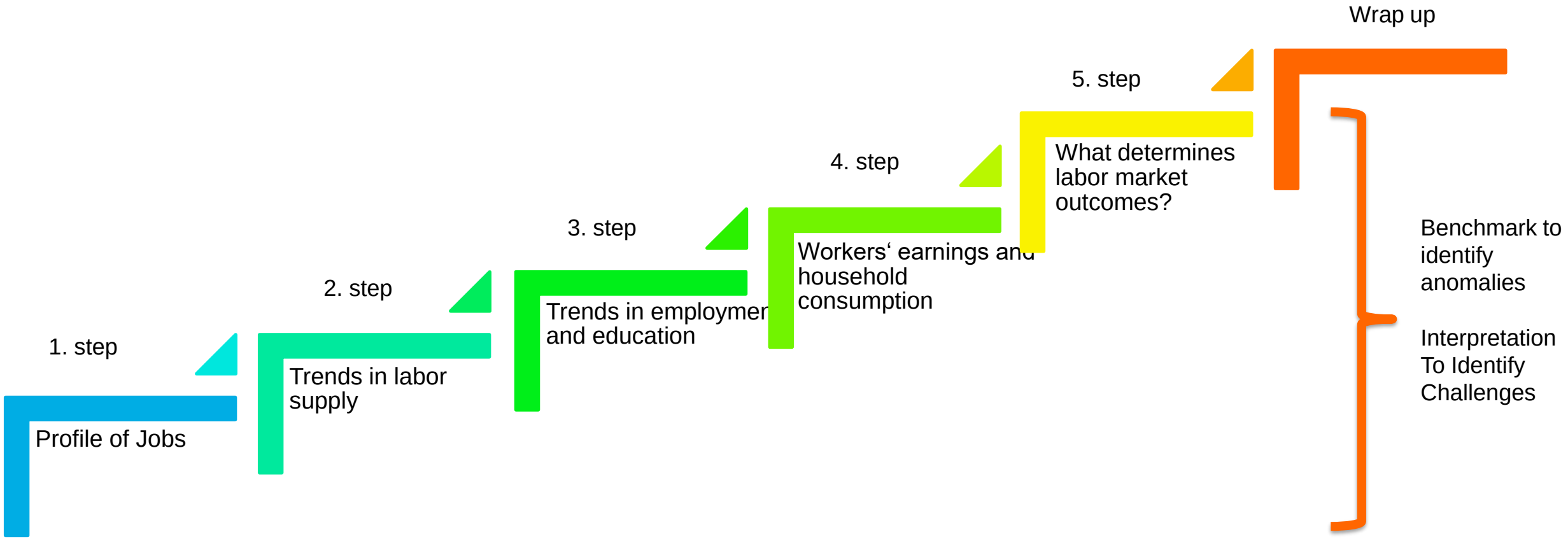
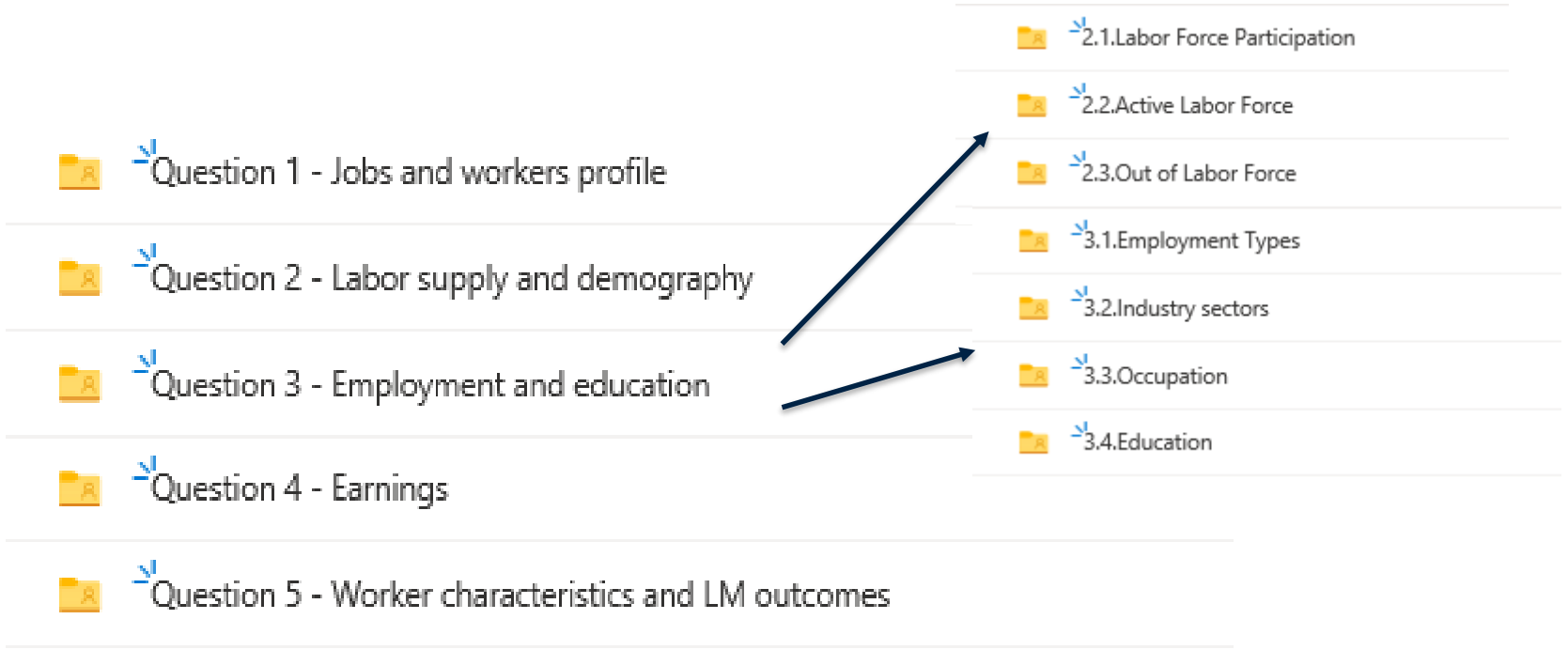
Hands-on Exercises – Following the Guided Enquiry for Human Capital and LM Supply Side Analysis

Michael Weber & Jörg Langbein
Jobs Diagnostic and Solutions
November 5, 2019

Step-wise guided enquiry – Supply side



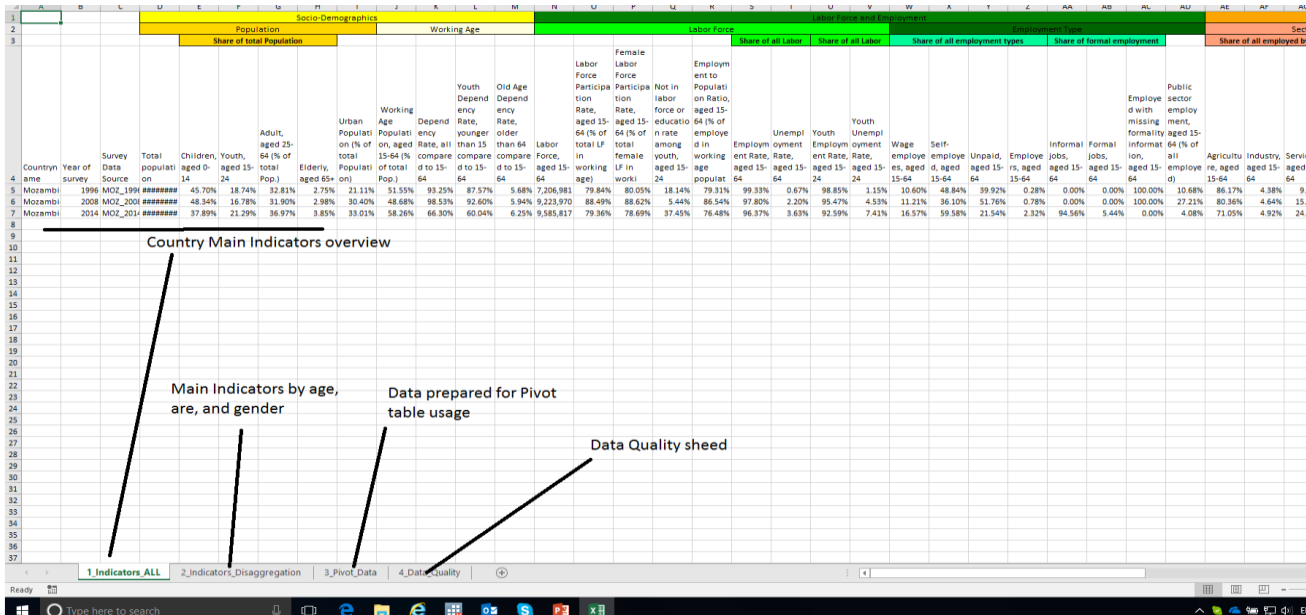
Standard Supply-side Outputs using LFS/LSMS



Group assignments – Resources on the Shared Drive

1. Folder with Figures:
    - Selected figures for the country to be analyzed
    - Figures for benchmarking with the respective income group or region

2. Files featuring indicators and pivot data for the respective country and the benchmarks, includes:
    - Key labor market indicators, (i) overall and (ii) disaggregated by area, age, and gender
    - A sheet allowing for interactive Pivot Table usage
    - Data quality indicators



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Example Moldova

Overall question:

- How has domestic employment developed for Moldovans, Is there a rationale for (youth) to migrate?

Question 1:

- How has the (rural) Moldovan population changed over time?

Question 2:

- How has the labor force changed over time between rural and urban areas?
- Are there any trends observable when comparing to other countries?

Question 3:

- Has the development in the composition of the population and its location affected the sector and type of work?

Question 4:

- What determines finding employment? What determines finding a formal job?

Question 5:

- How do these developments affect earnings, the youth and bottom 40?

Example Mozambique

Overall question:

- What is Mozambiques jobs challenge and potential for the future?

Question 1:

- How has Mozambique‘s working age population developed over time?

Question 2:

- Has the change in the working age population affected the labor force composition?
- Are trends visible, especially in contrast to other countries?

Question 3:

- For those in employment, how have job types and sectors changed overall and when compared to others?
- Are there differences by subgroups?

Question 4:

- What is the development of education in Mozambique over time and in an international comparison?

Question 5:

- What about job quality in Mozambique? Is the current status comparable to other countries?

Example Vietnam

Overall question:

- Jobs in Vietnam – A role model for developing countries?

Question 1:

- How has the Vietnamese economy changed over time?

Question 2:

- What determines participation in the economy?
- Is the Labor Force Participation similar to other countries in the same region or income group?

Question 3:

- What are the different jobs Vietnamese workers engage in?
- How does this compare to benchmark countries?

Question 4:

- What are determinants of earnings and returns to education in Vietnam?

Question 5:

- Who is benefitting from the developments in the Vietnamese labor market and who is not?

Example Belize

Overall question:

- Is Belize capturing its growth potential?

Question 1:

- Is Belize experimenting sound economic growth?

Question 2:

- How is Belize's demographic structure evolving?

Question 3:

- How does the changing demographic structure affect the labor force? Has there been any significant change in the gender composition of the labor force?

Question 4:

- What economic sector dominates the Belizean economy? What does its gender composition look like?

Question 5:

- How is productivity evolving?

Question 6:

- Is unemployment high or low? Are wages increasing? How about working hours?

Example Botswana

Overall question:

- Jobs in Botswana – What are issues you would take up to design a pro-poor employment policy?

Question 1:

- What is the trend in labor supply, urbanization and how is it related to poverty?

Question 2:

- What are the trends in employment?

Question 3:

- Is Botswana engaging in a structural transformation and how does it relate to poverty?

Question 4:

- Is education a way out of poverty?
- Which role does education play in finding a job?

Hands – on session:

- Please form groups of around 5 people
- Each group receives a country example
- Seperate sheets with the questions for you are distributed
- 30 minutes time to work on the questions
- We will faciliate the group exercise
- Please prepare a short, focused presentation afterwards
- There is no power point needed for the presentation

Thank you!

ANNEX: Concepts and variable definition - Sectors

- Sector variables are given in the broad categories: Agriculture, Industry and Services and can be used as input for the Macro Excel tool
- Disaggregated sectors are also given and can be transformed to the Macro Excel tool

I2D2	ISIC (revision 3.1)	Macro Excel Tool
Agriculture, Hunting, Fishing	01-05	Agriculture
Mining	10-14	Mining & Utilities
Manufacturing	15-37	Manufacturing
Electricity and Utilities	40-41	Mining & Utilities
Construction	45	Construction
Commerce	50-55	Wholesale & Retail
Transportation, Storage, and Communication	60-64	Transport & Communications
Financial, Insurance, and Real Estate	65-74	Other Activities
Services: Public Administration	75	Other Activities
Other Services	80-99	Other Activities

ANNEX: Concepts and variable definition – Mincerian Regression

- Returns to education are calculated using Mincerian type of Ordinary Least Squares (OLS) regression.
- In a simple model returns or education are calculated using education levels as indpendent variable and a wage variable in logarithmic form as outcome variable. Controls like age, gender and area are included.
- Further specifications include sector, occupation, formality of work indicators and public sector indicator to disentangle the effects of those components on earnings.
- As the hourly wages are in logs, the percent change for continuous variables can be interpreted by multiplying the value for with 100.
- For dummy values, the exponent of the respective variable needs to be subtracted from 1.