

Human Capital Development in Lao PDR: Education, Training and Skills mismatch

Mr. Suthanu Butphomvihane

Ms. Alounphone Mungnormek

Statistic Division

Department of Planning and Cooperation

Ministry of Labor and Social Welfare

Tel: 856 21 222 777

Email: suthanu1974@gmail.com/aloun613@gmail.com

Motivation

- Study the development of human capital in Laos in the labour market
- In particular, study the education and training issues and identify the skills-gap in the economy
- Important for attracting FDI and creating sustainable and inclusive growth
- Methodology: Qualitative framework with data from public and government sources

Educational background of Lao PDR

- Buddhist temple school is a fundamental stage in Lao literacy development, however, only novice and village boys are eligible to attend
- Later half of 19th century French education system became integral part of Lao education, but mostly benefited the elite family
- Late 1960s Lao curriculum was introduced and replaced French by Lao language in teaching
- 1961 – 1973 US made a secret war in Laos against North Vietnam (during Vietnam war) by dropping millions tons of boom, caused heavy destruction of educational infrastructure in many parts of Laos
- Since 1975 the government of Lao PDR has put more efforts to raise literacy rate and improved educational system, and introduced an intensive primary education program for illiterate adults

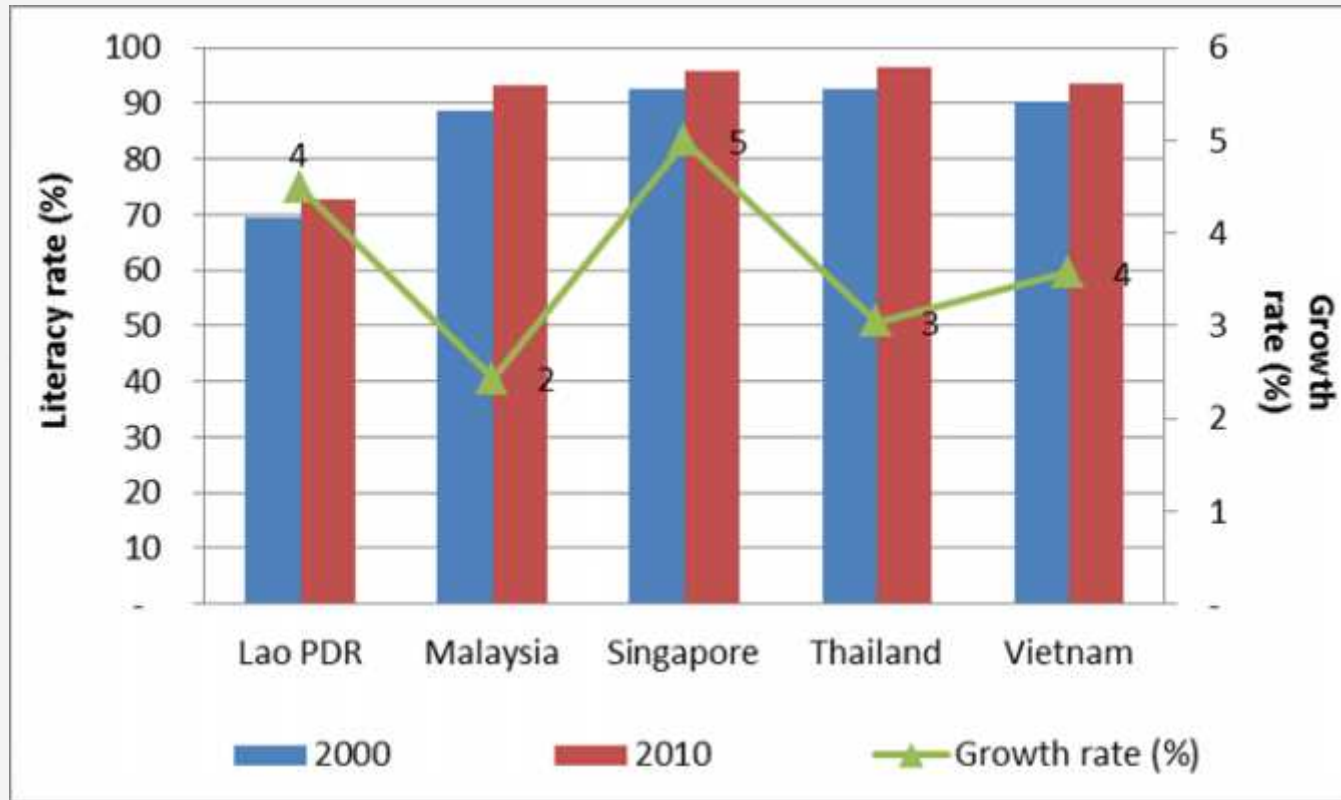
Literature review

- Recent studies highlight the importance of human capital for creating private and social externalities in the economy (Acemoglu and Angrist, 2000)
- Human capital is a key factor to encourage foreign investments. The more skilled workers the more attractive destination of MNCs off-shoring of (Shepherd and Stone , 2012 and Stone and Bottini , 2011)
- Global production network can help developing countries to improve labors productivity, increase manufacturing and services employment and better working condition. However, low skilled labor force is worse off (Formai and Vergara Caffarelli, 2015; Shingal, 2015 and Farole, 2016)

1. Observations: HD in Laos and ASEAN

- The data comparison from 2000 and 2010 show that Laos has a progress in literacy rate improvement (**Figure 1**). There is an increase in literacy rate people age 15 and above about 4% in the past decade and by this level it is also inline with other in ASEAN such as, Vietnam and Singapore
- An increasing in literacy rate of Laos could be perceived as a result of primary education development (**Figure 2 and 3**)
- **However**, Laos is still a country that has **high drop-out rate**, particularly in primary education compared to ASEAN (**Figure 3**)

Figure 1: Adult (15+) literacy rate (%)



Source: World bank database

Figure 2: Gross enrolment ratio of primary (%)

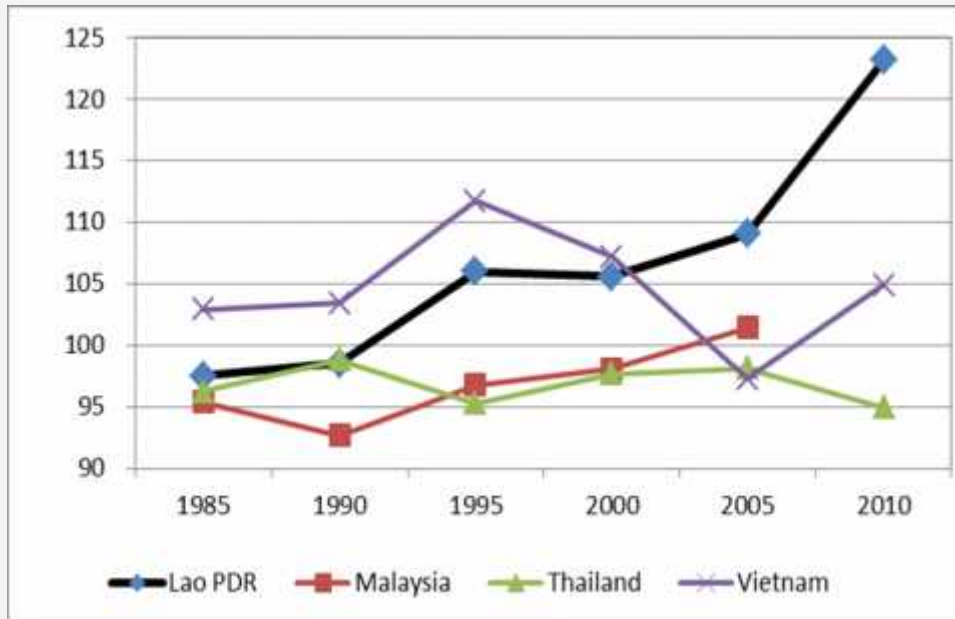
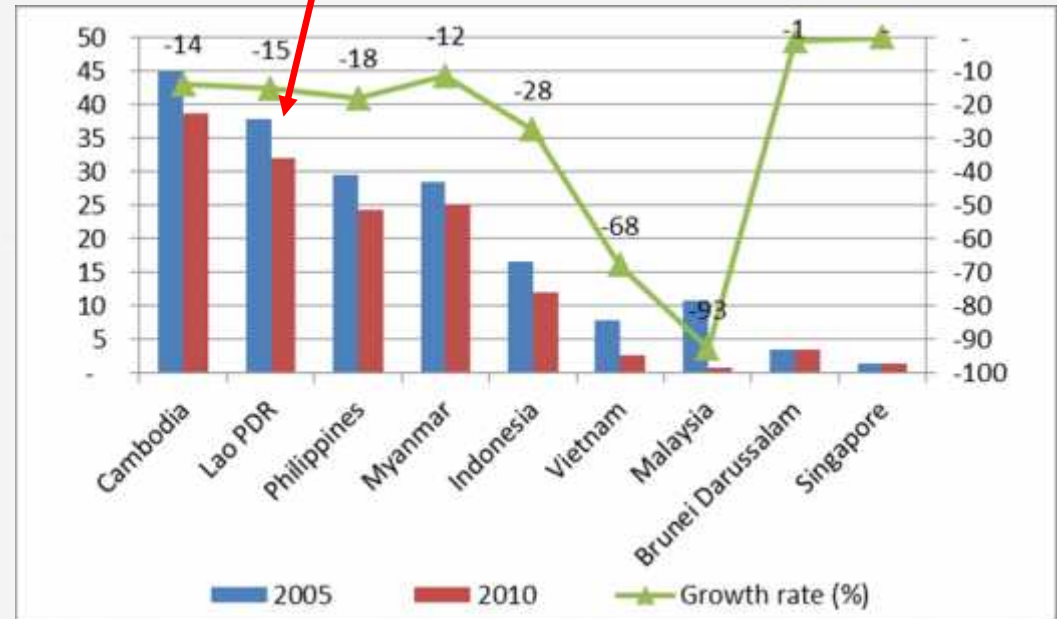


Figure 3: Drop-out rate of primary (%)



Source: World bank database

1. Observations

- **Figure 4 and 5** show a constant rise of enrollment both secondary and tertiary in the measuring periods
- One important factor contributes to those achievements in Laos is an expenditure of government which is seen in one of highest in ASEAN (**Figure 6**)
- **Nonetheless**, if making an comparison with dynamic economies (Malaysia, Thailand and Vietnam), Laos educational development still lack behind those countries (**Figure 4 and 5**)

Figure 4: Gross enrolment ratio of secondary

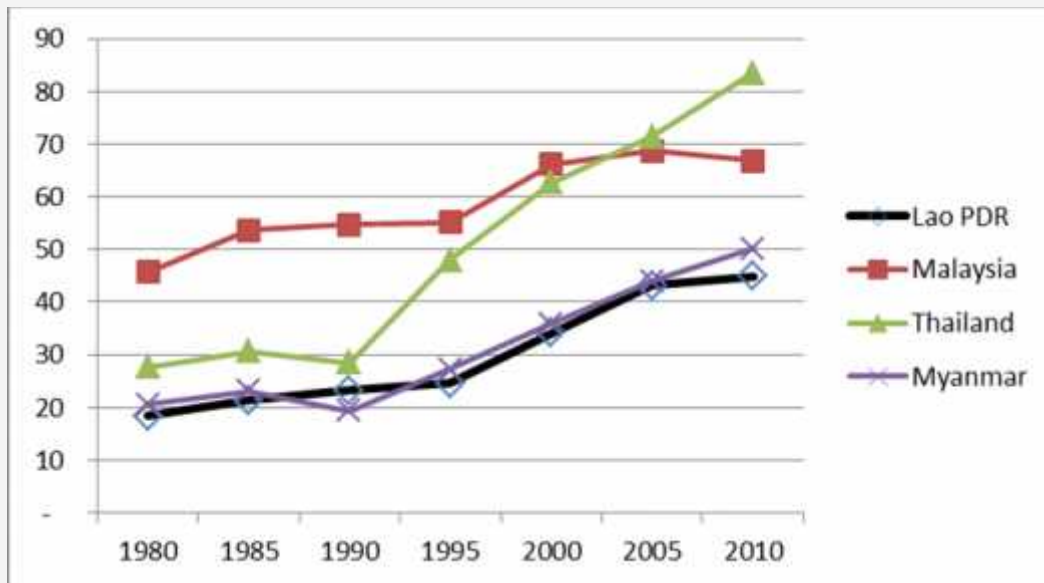


Figure 5: Gross enrolment ratio of tertiary

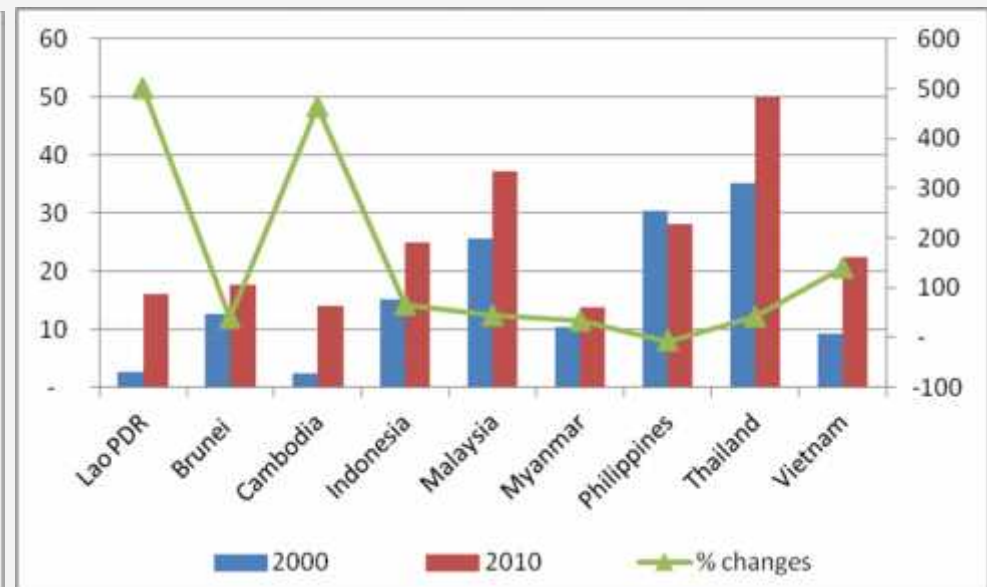
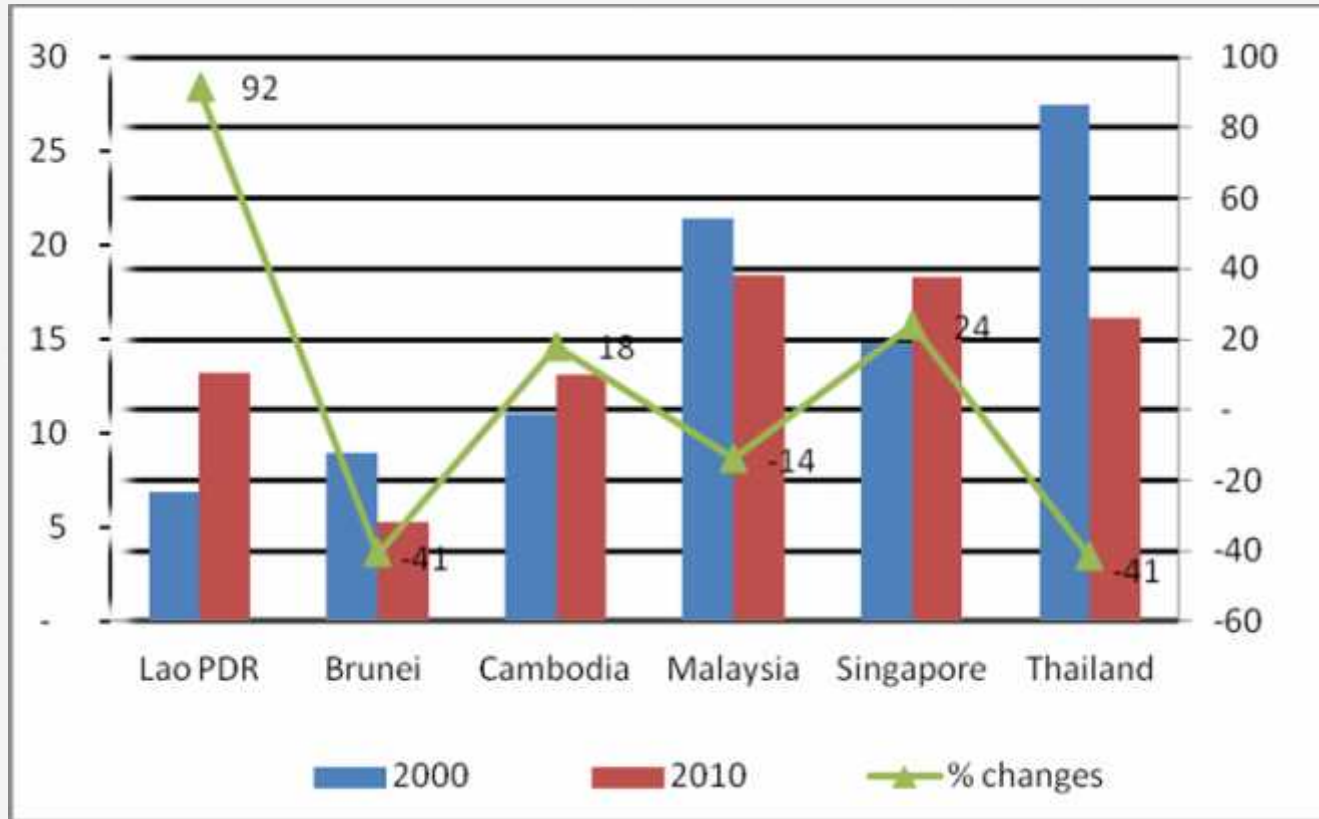


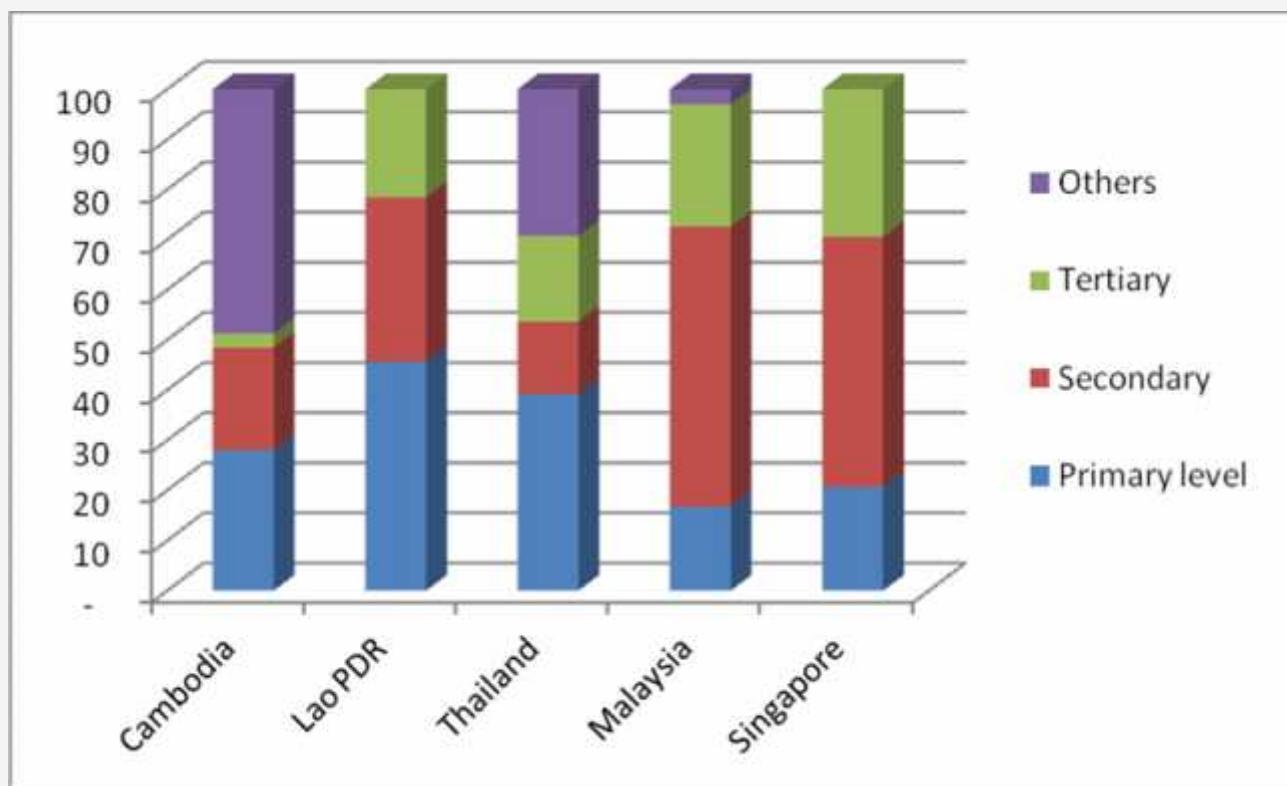
Figure 6: Expenditure on education as % of total government expenditure



2. Observations: Labor force education attainment

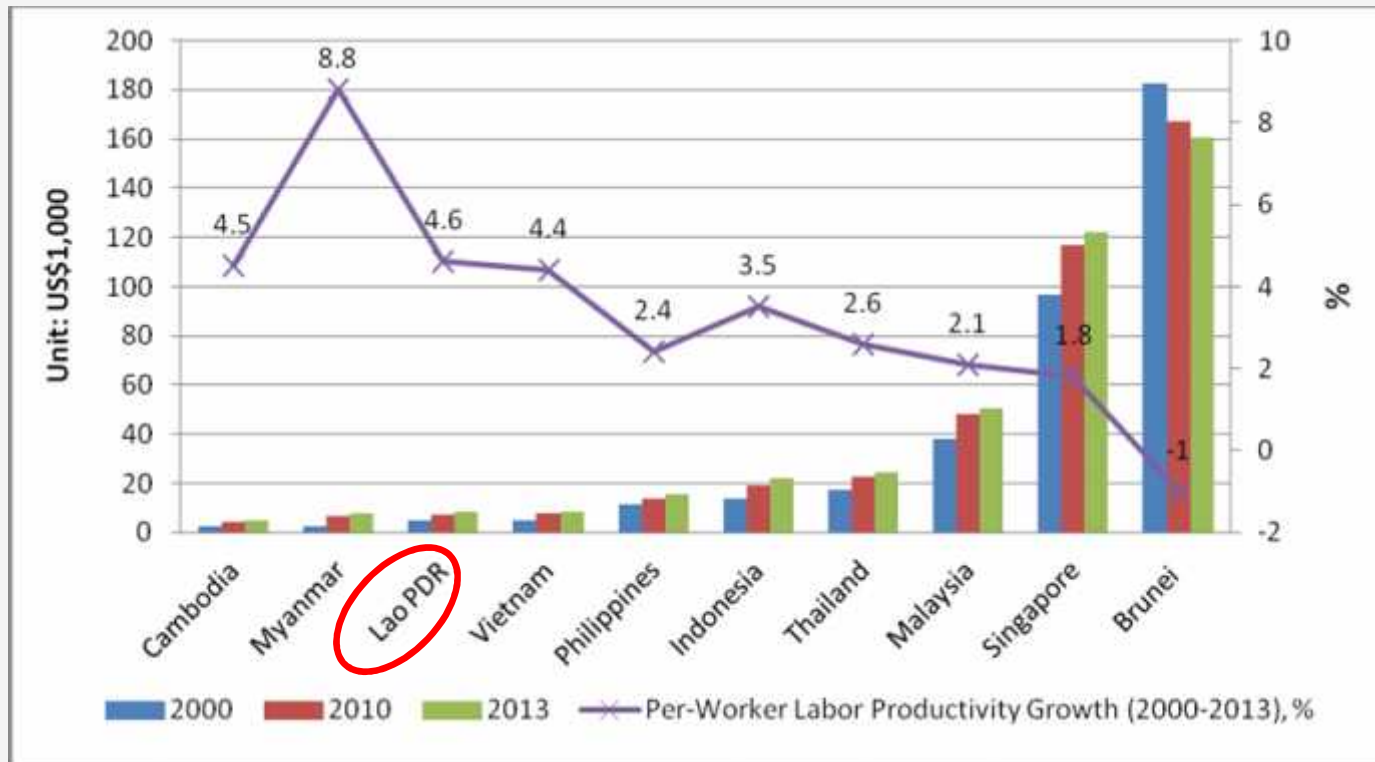
- Lao labor force is with primary education is well below 50% compared to secondary one, while labor force with secondary and tertiary level are prevalence in ASEAN dynamic economies (Figure 7)
- Singapore and Malaysia are two countries that have high rate of labor force having secondary and tertiary education whereas there are an inverse trend in Cambodia and Thailand
- Regarding to labor productivity, Laos has been seen in a rising trend since 2000 **but** still be lower than other ASEAN countries, except Cambodia and Myanmar (Figure 8)

Figure 7: Comparison of labors by education attainment 2012 (% of total labor force)



Note: data for Cambodia, Malaysia, Singapore and Thailand are from World Bank database; There's no data available for Lao PDR so author calculates from Lao Ministry of Labor and Social Welfare data

Figure 8: Lao labor productivity

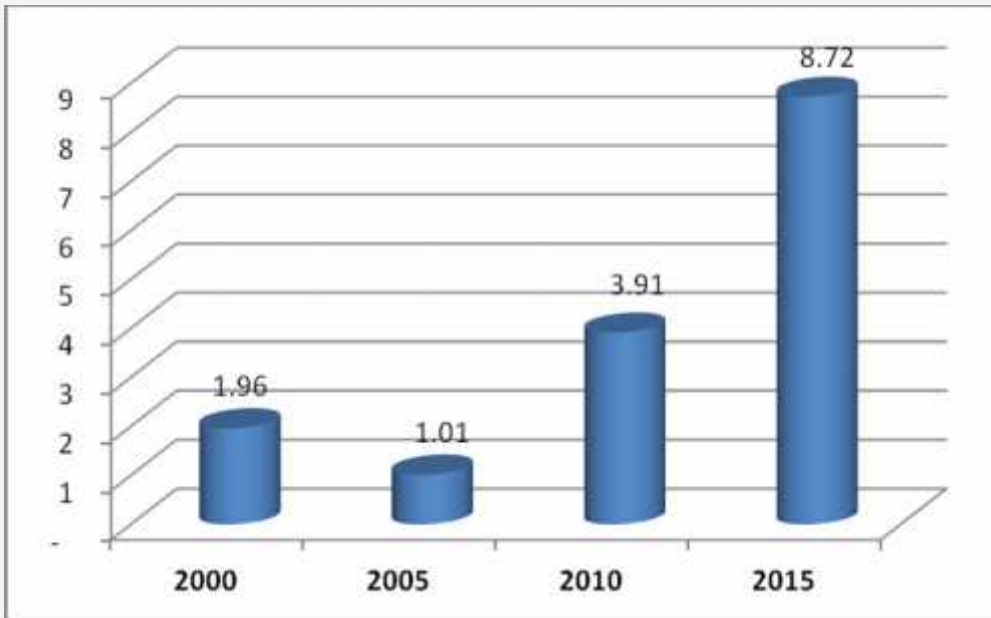


Source: Asian Productivity databook 2015, APO

3. Observations: Labors and Investment

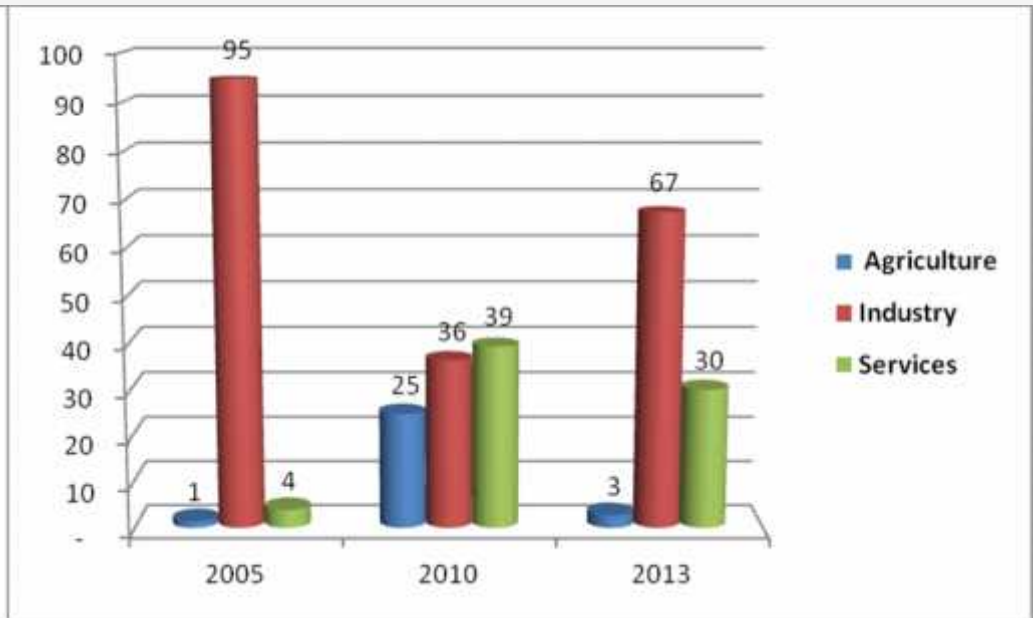
- FDI has played an important role in driving GDP growth since 2000 (**Figure 9**). This has impact on demand for skills.
- A rise of investments in the country is likely to be more concentrated in industrial and service sector which currently absorbing high percentage of skilled labor force in the economy (**Figure 10 and 11**). **On the other hand**, agricultural sector, where is a home of large number of labors, is left behind (**Figure 12**)

Figure 9: FDI percent of Lao GDP



Source: World bank database

Figure 10: Proportion of investment by sectors



Source: Author's calculation using Lao Statistics Bureau data

Figure 11: Proportion of Skilled Labor force

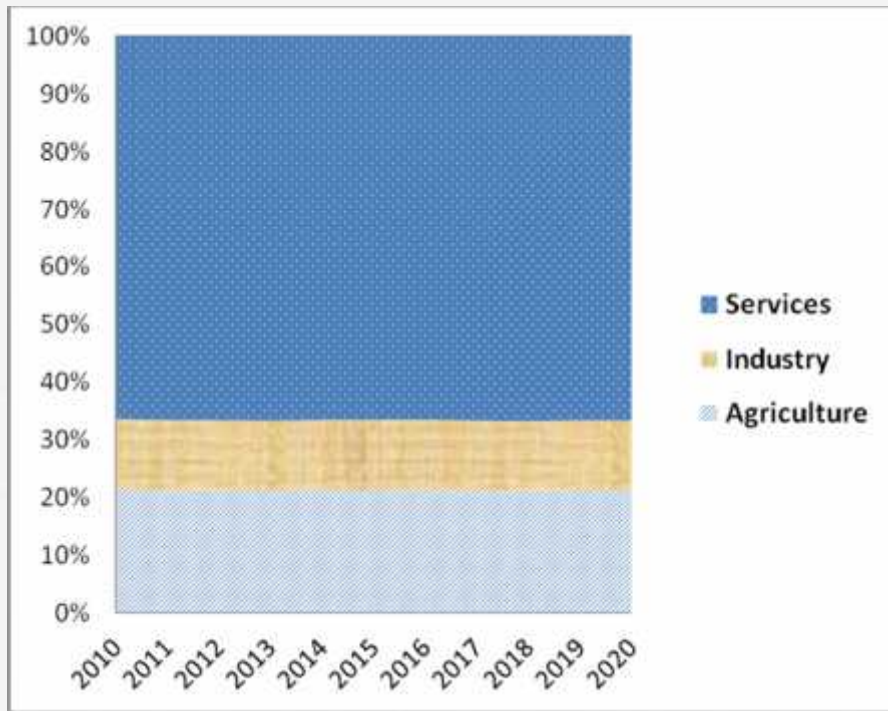
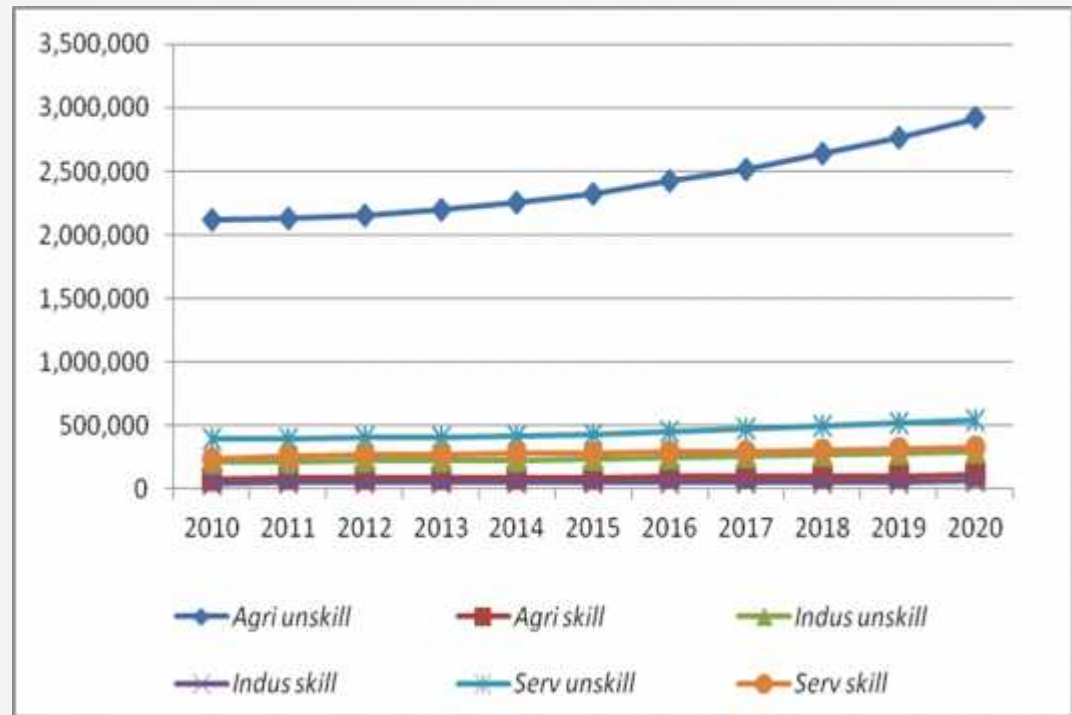


Figure 12: No. of Labor force in 3 main sectors



Source: Ministry of Labor and Social Welfare

3. Observations: Labors and Export in Laos

- The export growth of Laos was almost in a positive trend from 2010 to 2015, except for 2013 (**Figure 13**).
- This could be as a result of an increasing export of resource-based products such as, mineral products, base metals, electricity and wood processing (**Figure 14**). **However**, those dynamic export basket (mostly from resource-based sector) do not significantly generate high labor demand to absorb the large unskilled in the country (agricultural sector)

Figure 13: Export of Lao PDR

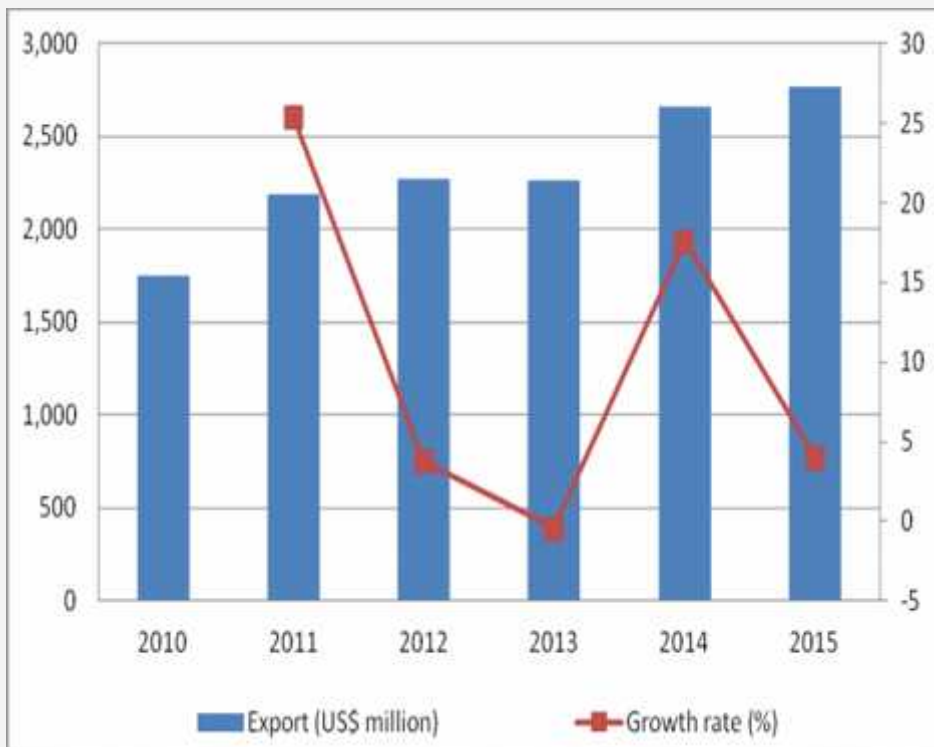
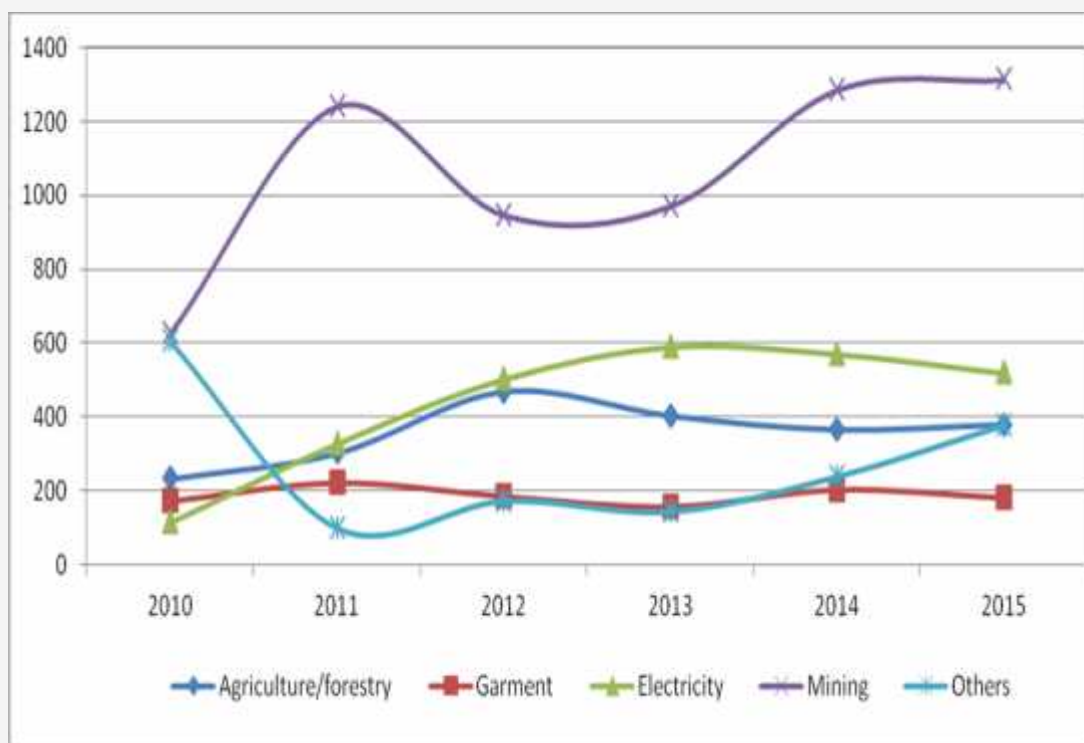


Figure 14: Export by products, Lao PDR



Source: Bank of Lao PDR

4. Observations: Distribution of labor force by sub-sector

- **Agriculture, forestry and fishing** are ranked in the top of labor force absorption, accounted for more than half of total workforce in Laos
- **Wholesale, retail trade and repair** are in a second and **manufacturing** is in the third (**Figure 15**). This ranking is projected to remain the same in the next five years (2020) (**Figure 16**)
- By measuring average growth rate of skilled labor force in sub-sectors found that skilled labors entered into total workforce in the past six years (2010-2016) increased only 3% to 4%.
- The high absorption of skilled labor force includes the following sectors: transportation and storage, manufacturing, mining and quarrying, water supply, electricity, financial and insurance, wholesale and retail trade (**Figure 17**).

Figure 15: Proportion of labors by sub-sector in **2015**

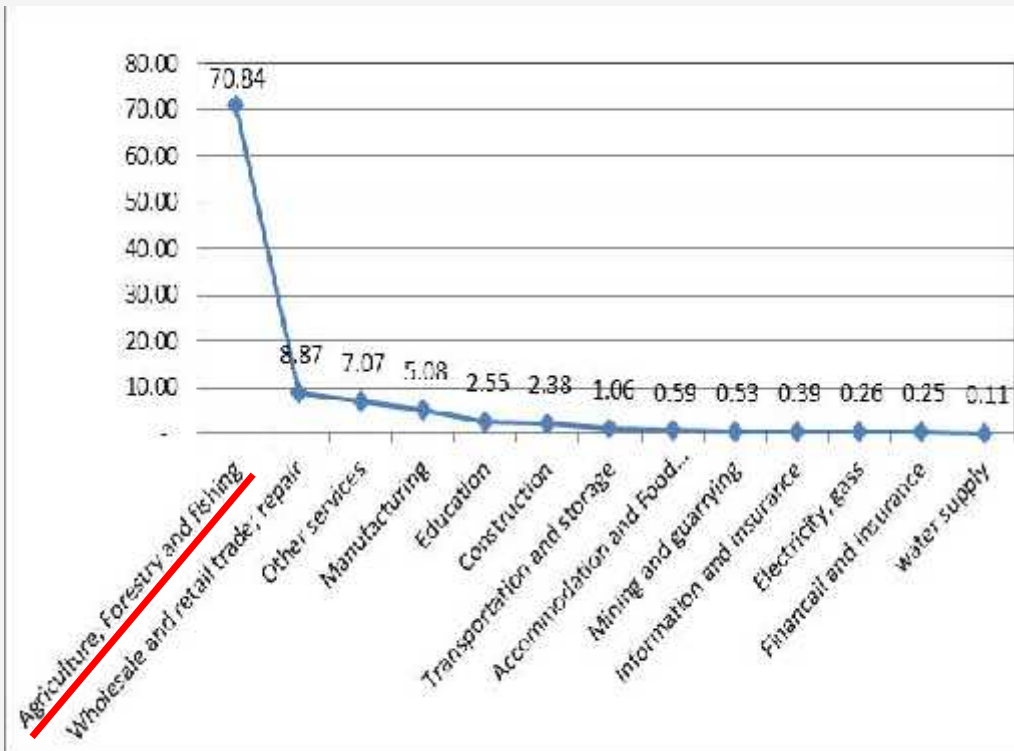
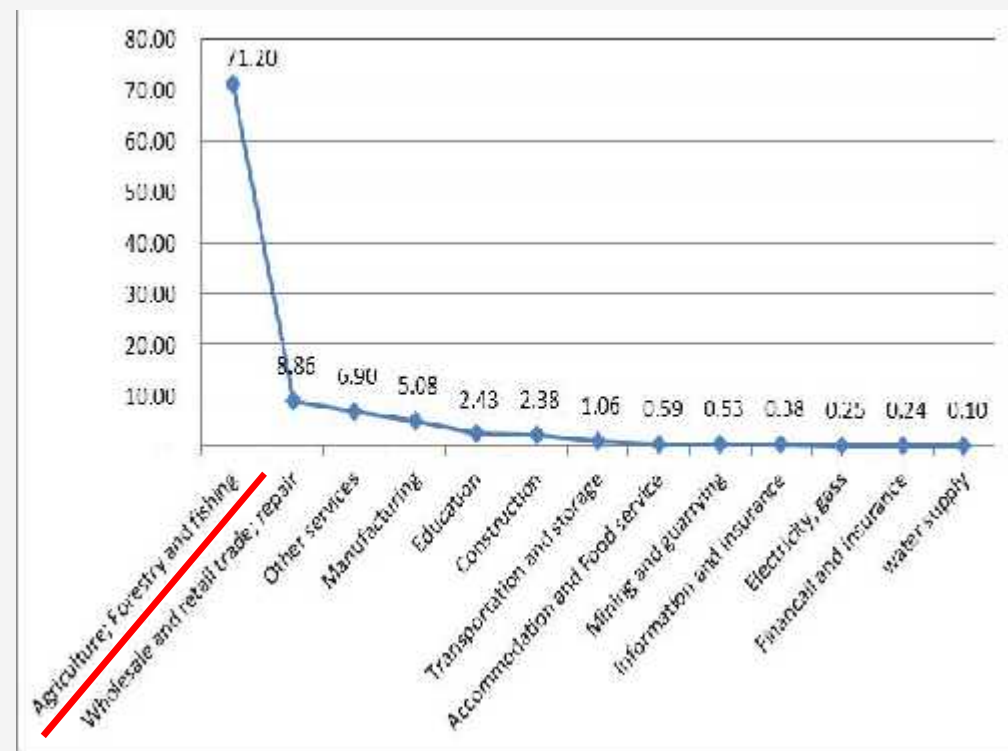
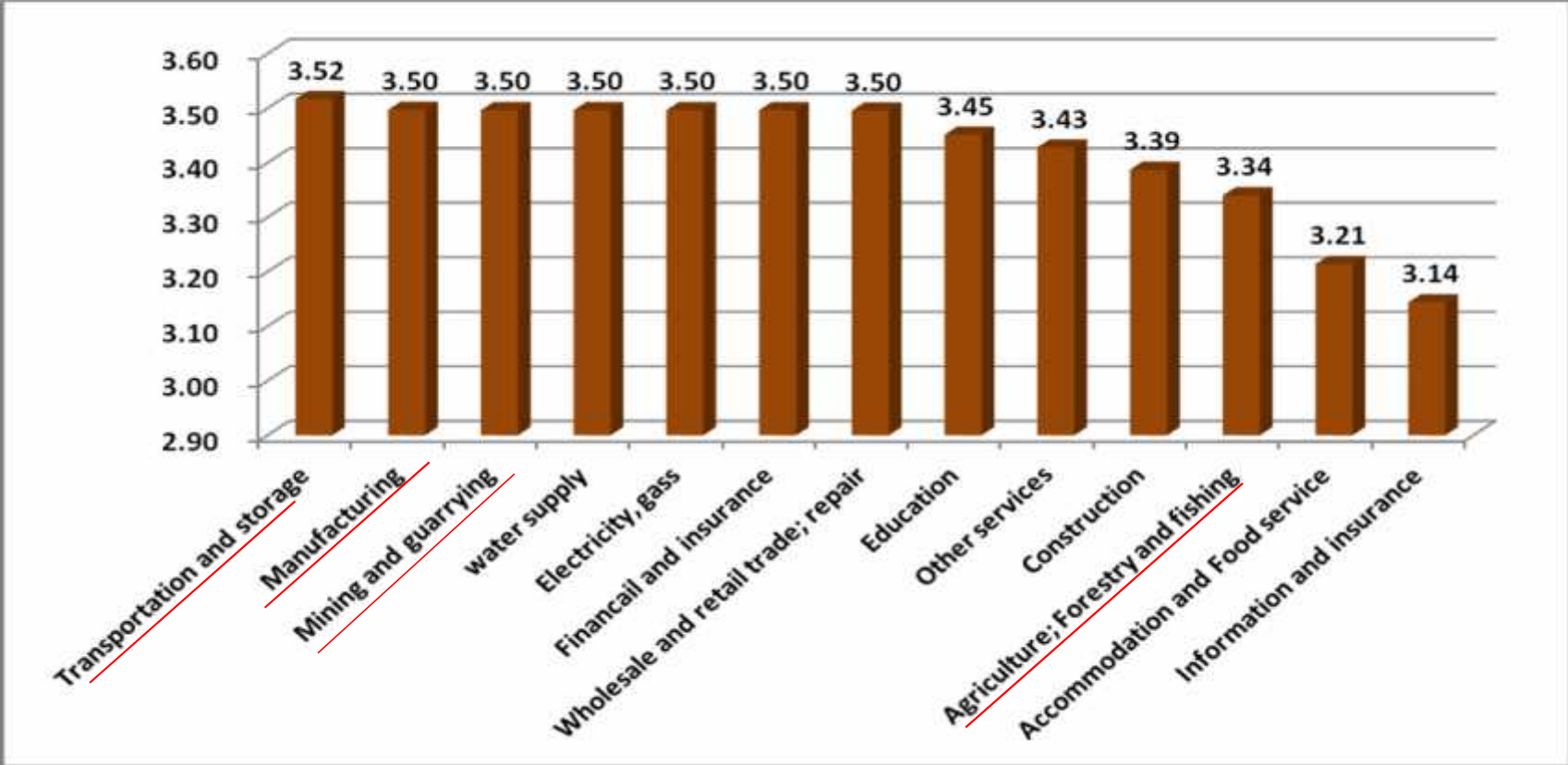


Figure 16-: Proportion of projected labors by sub-sector in **2020**



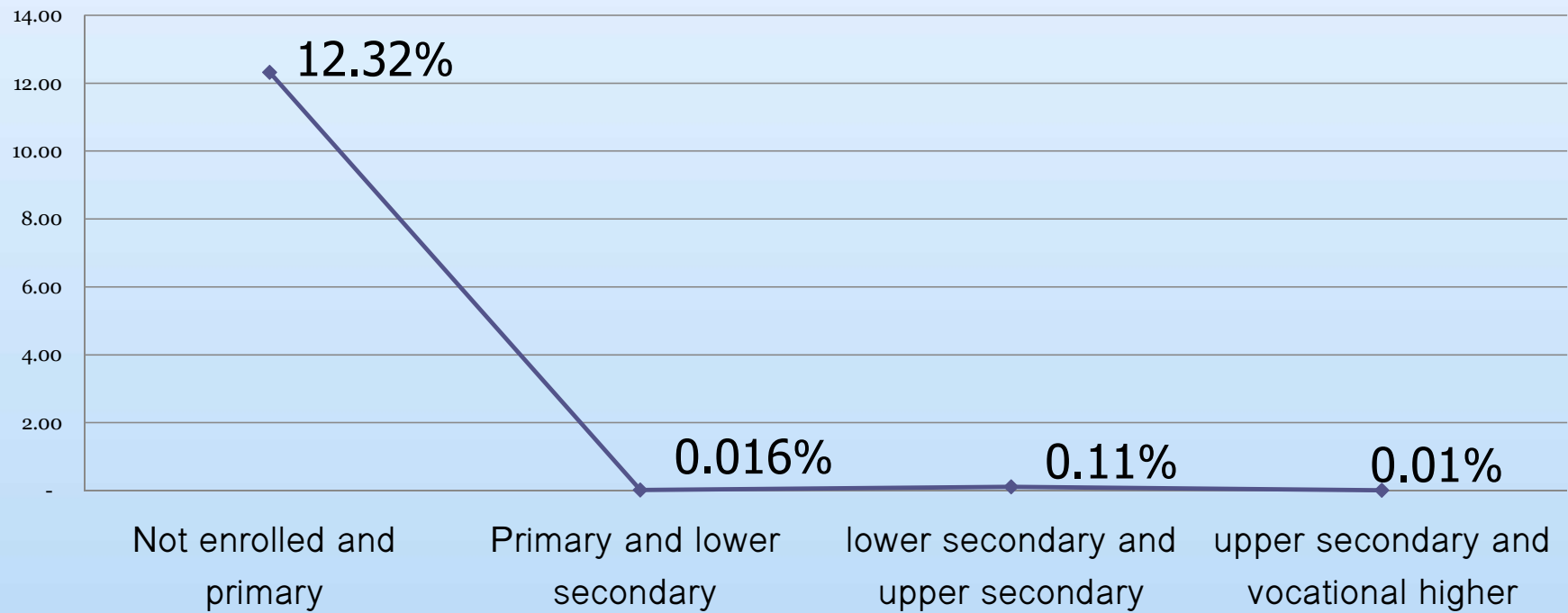
Source: Ministry of Labor and Social Welfare

Figure 17: Avg. growth rate (2010-16) of **skilled labor** in sub-sector (%)



Source: Author calculates using data from Ministry of Labor and Social Welfare

skill mismatch



—◆— skill mismatch

5. Key findings

- In fact the previous experiences showed that many HD indicators of Laos still lack behind the dynamic developing economies in the region which are a home of many MNCs currently outsourcing and off-shoring
- Laos has paid lot of efforts in terms of promoting universal primary attainment among population as well as increasing government expenditure on education, still the unskilled labors overwhelm national workforce

5. Key findings (Cont.)

- Agriculture absorbs $\frac{3}{4}$ of labor force in Laos but overwhelmed by unskilled labors. In contrast, industry and services are two sectors attract large share of skilled labors. Thus there is an uneven distribution of labor forces by sectors in Laos
- Evidences showed that many foreign investments, under a form of either outsourcing or off-shoring, mainly concentrate on two sectors namely, resource-based manufacturing and labor intensive industry
The former sector is likely to benefit skilled labors while the later highly concentrated on low skilled labors and wage rate in this sector is sluggishly increased (e.g. garment labors) (Ruppert Bulmer and Hollweg, 2016 and Stone and Bottini, 2011)

3. Key findings (Cont.)

- As many investments in Laos highly concentrate on resource-based sectors, and thus export of intermediate products and semi-finished products (i.e. using unsophisticated technology in production, unwilling to invest in advanced technology for further enlarging value-added and diversified products)
- By those circumstances, it is unlikely to see significant development of labors' skills in Laos

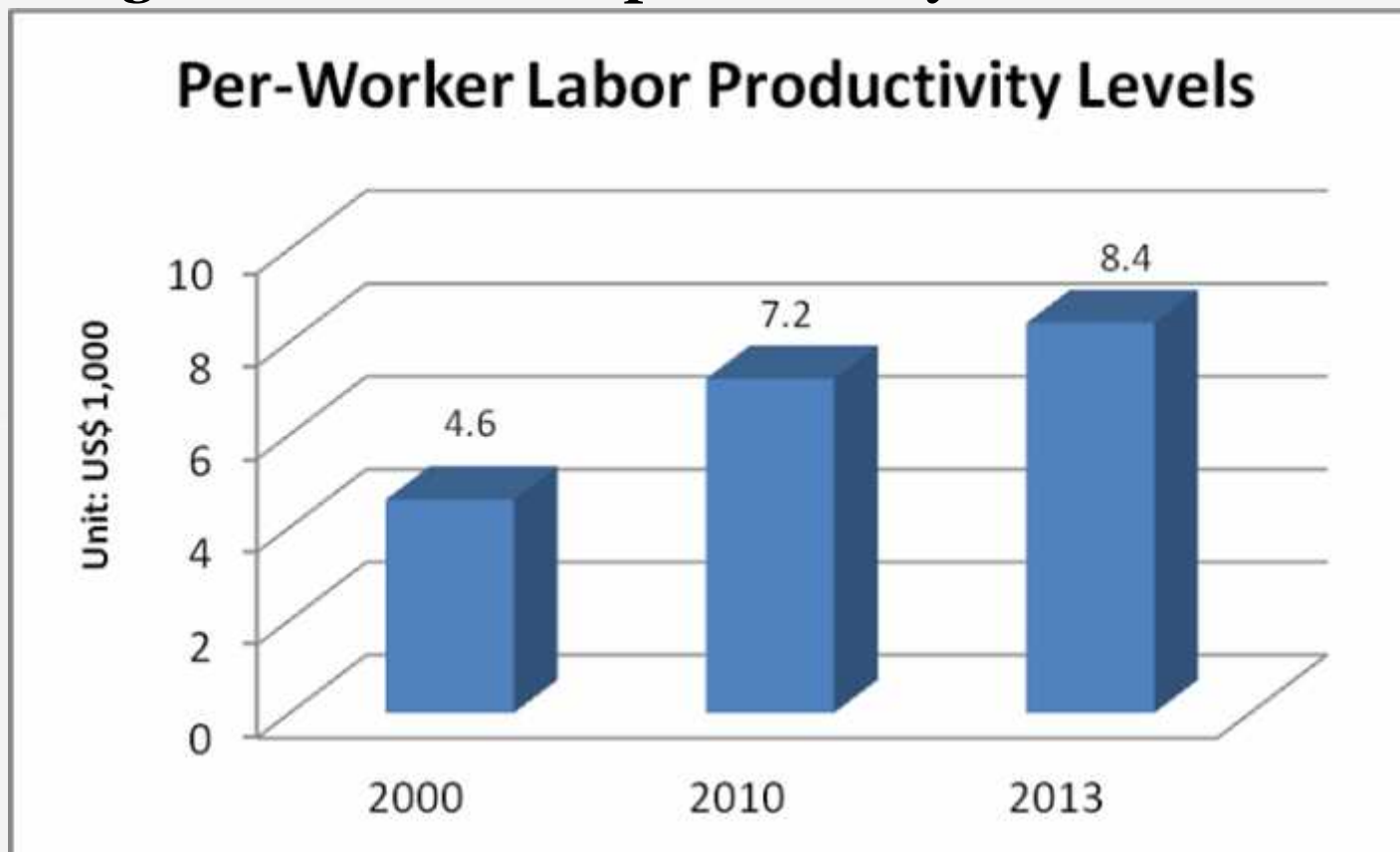
Key findings: Global value chain (GVC) and labors' skill development in Laos

- Impact of GVC on labor force:
 - ✓ Training/ skill upgrading
 - ✓ knowledge transfer
 - ✓ increase labor productivity

Key evidences

- In order to reach certain GVC production criteria, Lao firms practically will get technical assistance through labor training and upgrading skills.
- **Need policy support as** training and upgrading skills are required from lead firms and as a local firms have limited resources
- Laos can benefit from knowledge transfer from integration in GVC. **Nonetheless**, firm heterogeneity and country's environment are essential factors for knowledge transfer
- **Figure 18** shows that **Lao labor productivity** increased constantly as a result of an increasing in investments and exports (GDP growth) – by and large when Lao integrates to global economy, the contribution of GVC in labor productivity cannot be deniable

Figure 18: Lao labor productivity



Source: Asian Productivity databook 2015, APO

Note: GDP at constant basic prices per worker, using 2011 PPP, reference year 2013

7. Policy Implication

- Introduce incentive policy for encouraging school age population to remain in schools.
- One important policy could be an increase of people's income in rural areas through trade and commercial crop plantation. In addition, improve school environment and offer free nutrition food stuff for children, in particular primary level at rural areas and ethnic groups could encourage parents to send their kids to school
- Promote technical and vocational education in line with labor market demand; by doing so government expenditure should be prioritized on an improvement of teachers' quality and teaching stuffs
- Need to develop strong international communication language (English and Chinese) to labor force in order to quickly catch up with technological transfer and upgrade working skills

7. Policy Implication (cont.)

- Enable good business environment by reducing costs of doing business, creating friendly business policy and regulations, and developing strong platform for market exploration – these factors can help export-oriented firms to flourish and thus can trigger down to labor force development
- Policy to promote investment in high-tech manufacturing can promote labors' skills development through skill training and technology transfer
- Promote global production network-based firms and labor skills development linkages by introducing incentive policy to compromise an extra production costs caused by short and long term skill training organized by firms

Thank you!