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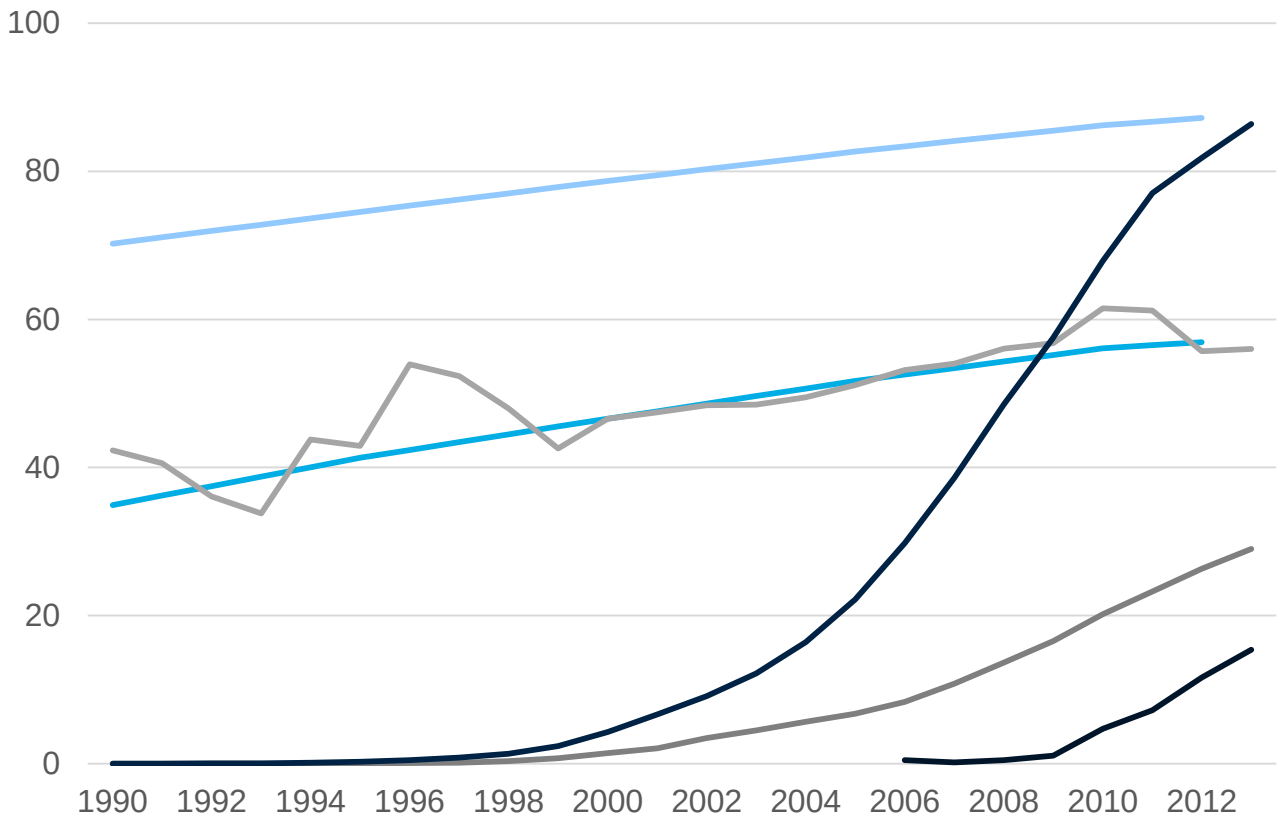
Digital Literacy: a basic skill to survive in the digital age

WAPES World Congress
Marrakech 2018

Abla SAFIR

Pervasive need for digital literacy

Accelerated need for digital literacy



improved water

mobile phone

improved sanitation

secondary school enrollment

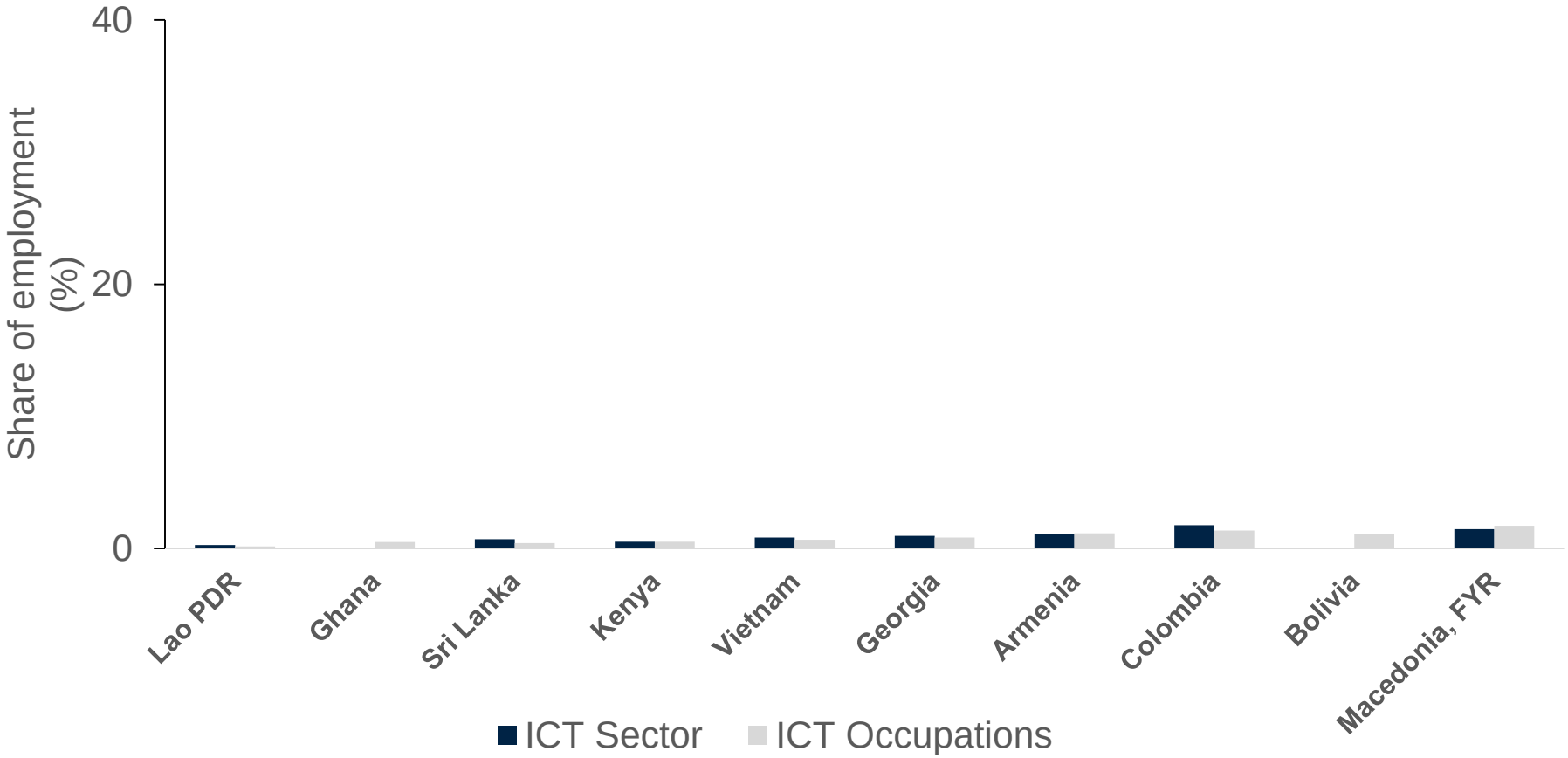
internet

mobile broadband

Note: Mobile phone and mobile broadband subscriptions, internet users, improved water and sanitation are per 100 individuals. Net secondary school enrollment is the percent of the relevant age group.
Sources: World Bank, WDR on Internet and Development Team based on World Development Indicators and ITU data.

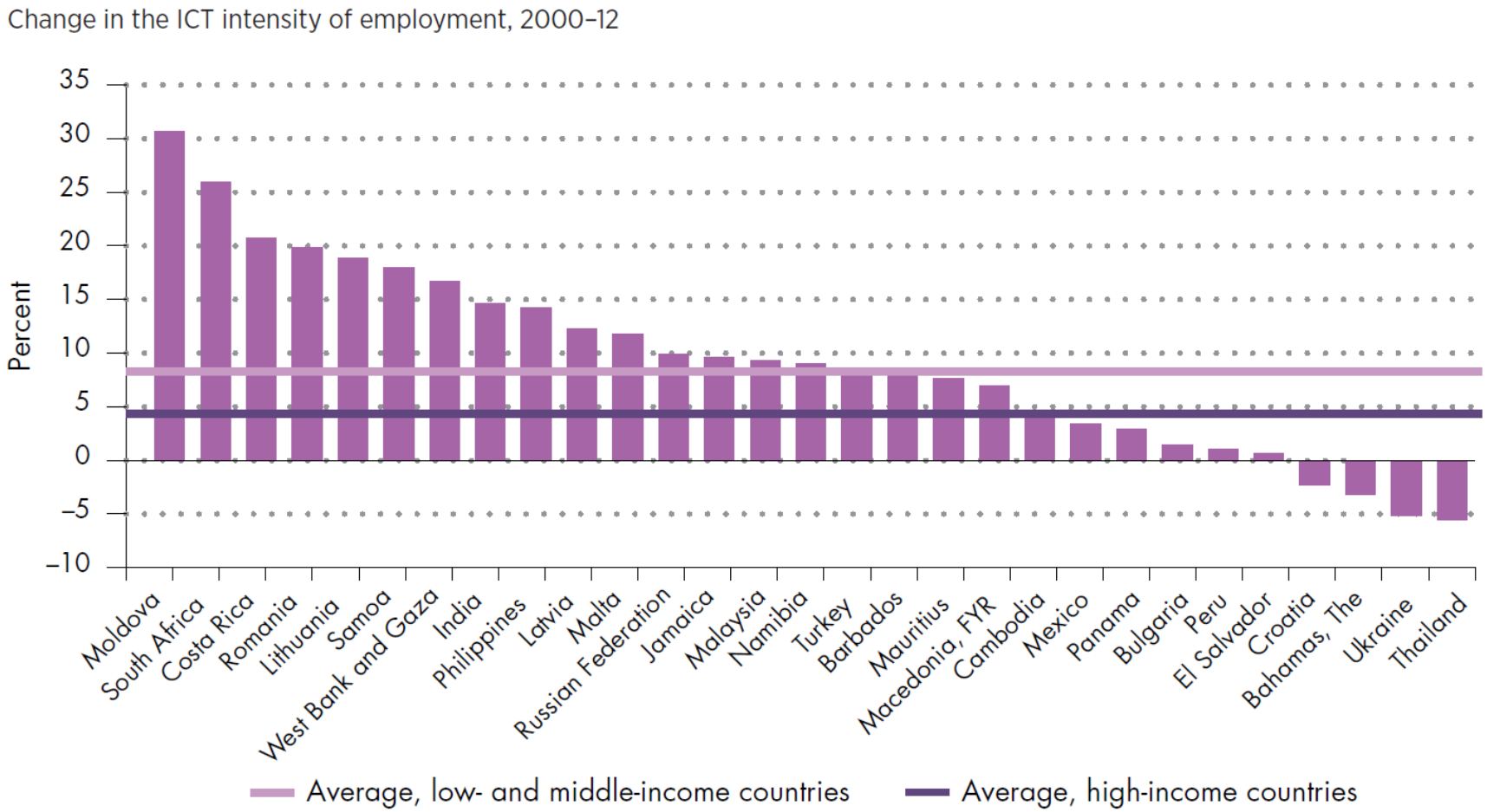
Few jobs in ICT in developing countries

Contribution of ICT to employment (2012-2013)



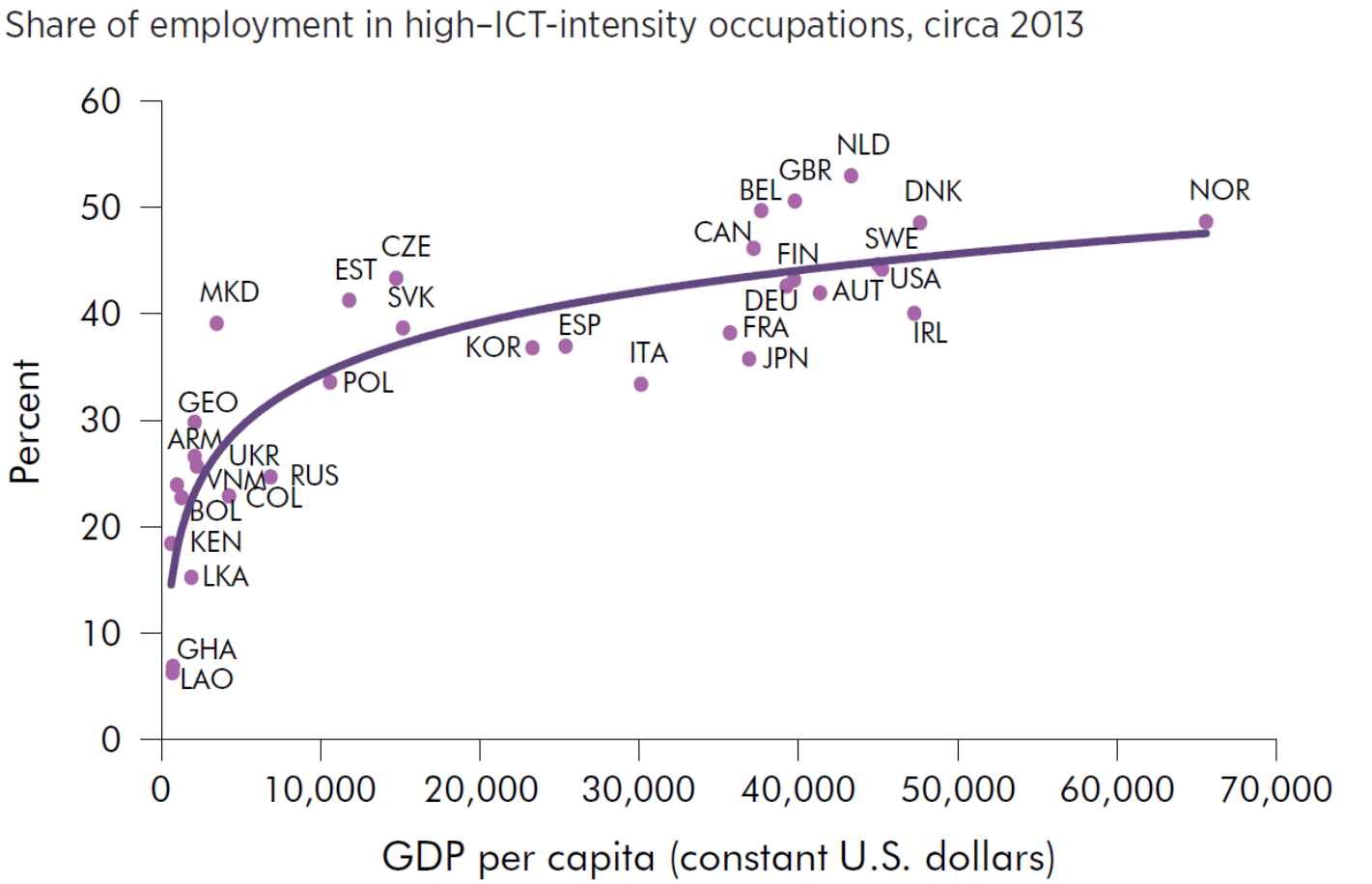
Source: WDR 2016, based on STEP household surveys. OECD definitions for ICT sector and occupations.

But increased use of ICT across jobs



Source: WDR 2016 team, based on Monroy-Taborda, Moreno, and Santos, forthcoming, for the WDR 2016, using ILO Laborsta (various years). Data at http://bit.do/WDR2016-Fig2_16.

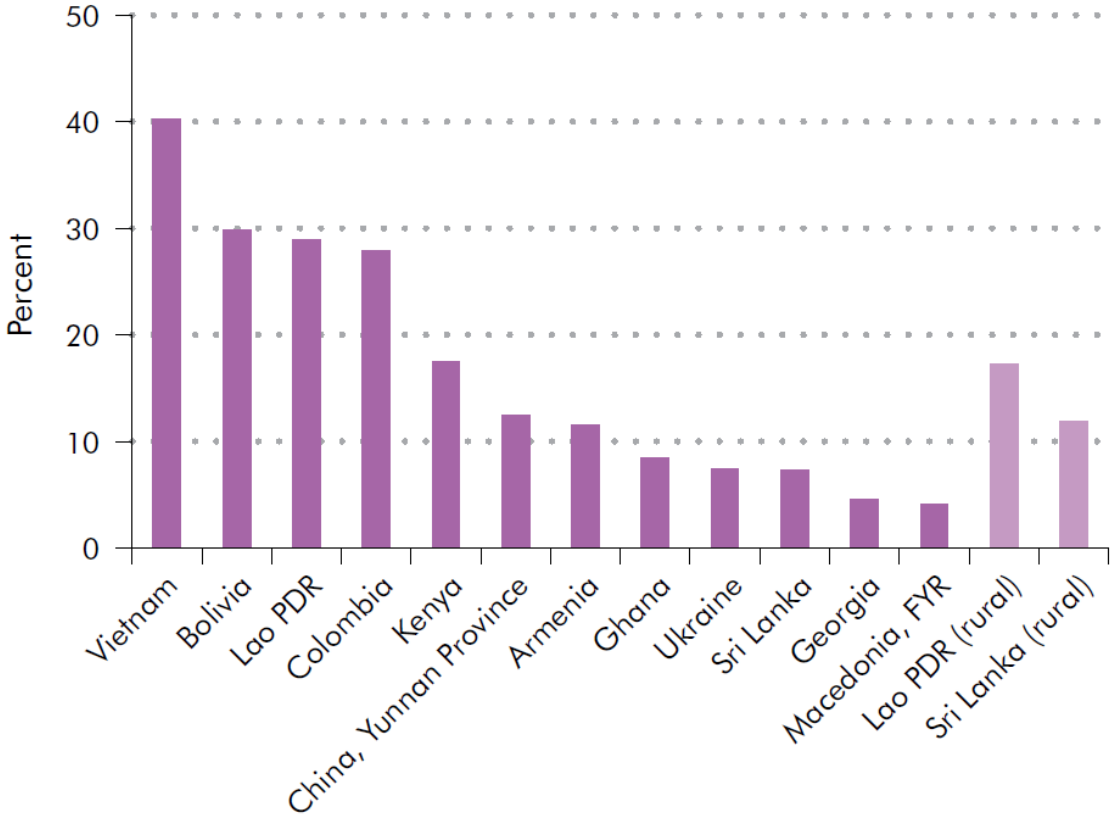
Higher use of ICT in employment as country incomes grow



Source: Monroy-Taborda, Moreno, and Santos, forthcoming, for the WDR 2016, based on STEP (World Bank, various years), PIAAC household surveys, and World Development Indicators (World Bank, various years). Data at http://bit.do/WDR2016-Fig2_19.

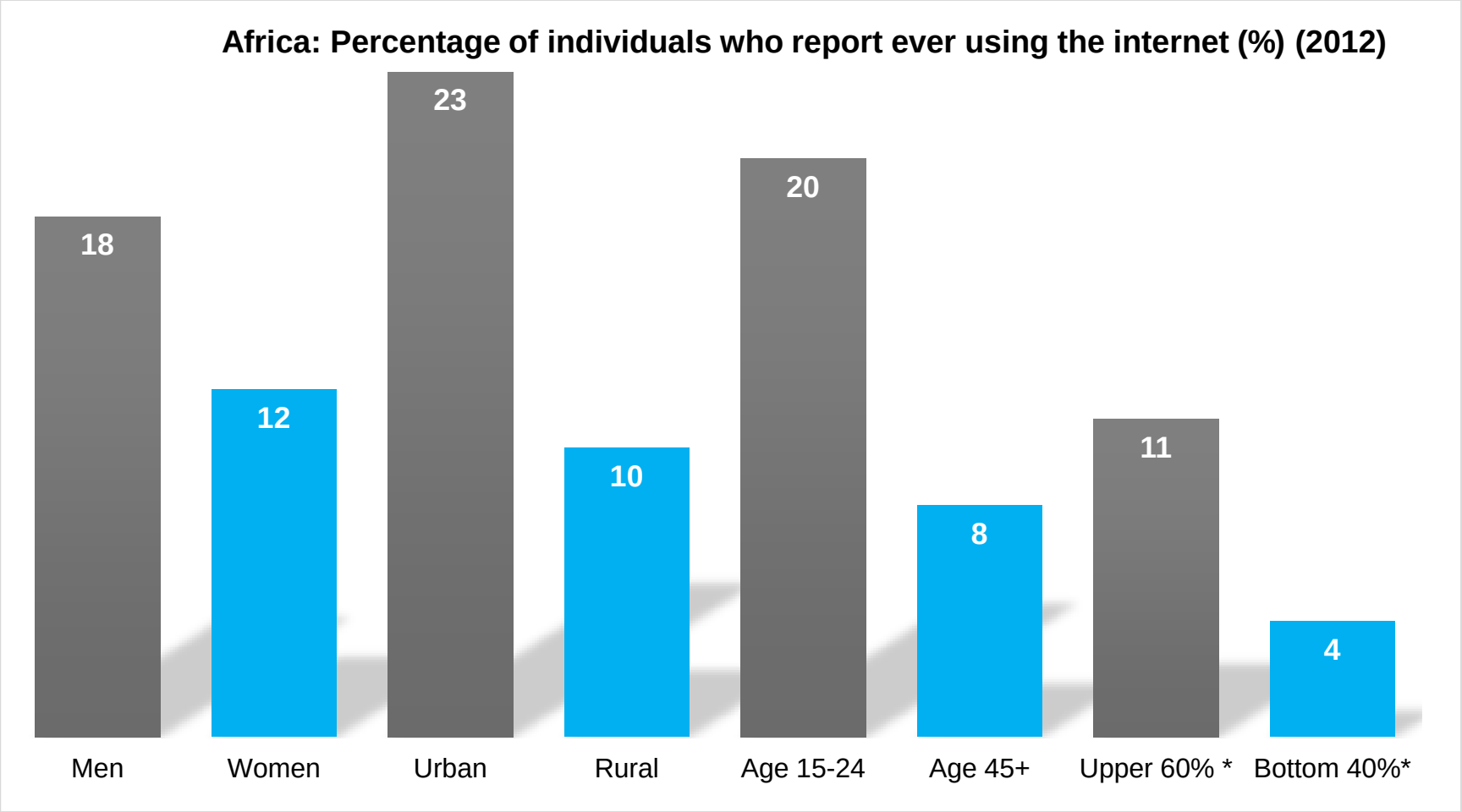
Lack of ICT is a barrier to employment

Share of working-age individuals in urban areas who report that lack of ICT skills is a barrier to employment and higher earnings, circa 2013



Source: WDR 2016 team, based on STEP household surveys (World Bank, various years). Data at http://bit.do/WDR2016-Fig2_20.

And access is unequal within developing countries



Source: WDR 2016, based on Research ICT Africa RIA survey.

But digitalization has an impact that is much broader than digital literacy: broader change in skills in demand

Digitalization is not only about digital skills: technological change drives a broader change in skills in demand

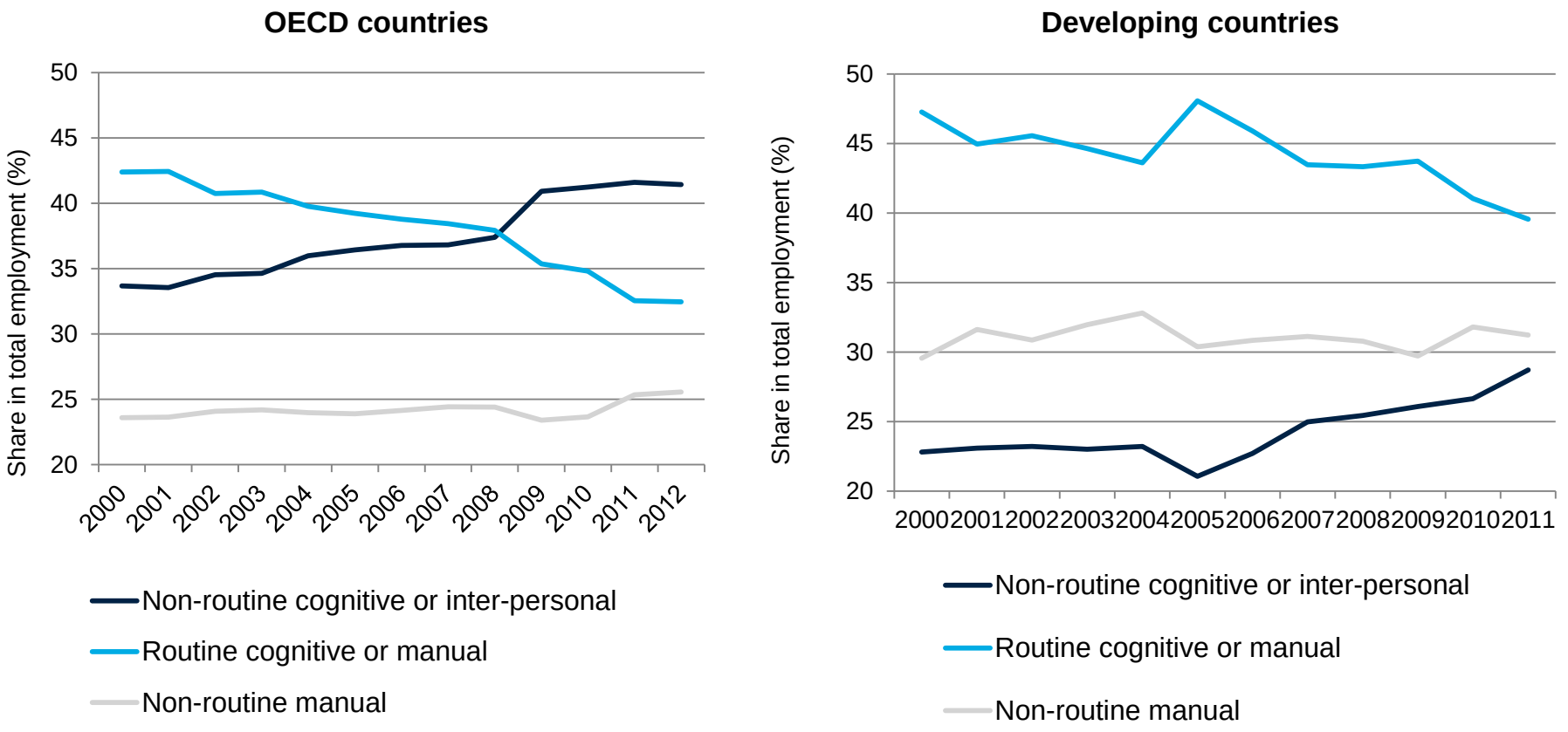
Technology complements some Workers (skill-biased)

But technology can substitute others (labor-saving)

What matters is whether the task is ROUTINE (and can thus be automated) or NON-ROUTINE

Work is becoming more intensive in non-routine skills and less so in routine ones

Employment Composition (simple cross country average by type of occupation) (2000-2012)



Source: WDR 2016 team, based on ILO KILM data. Skills classification follows Autor (2014).

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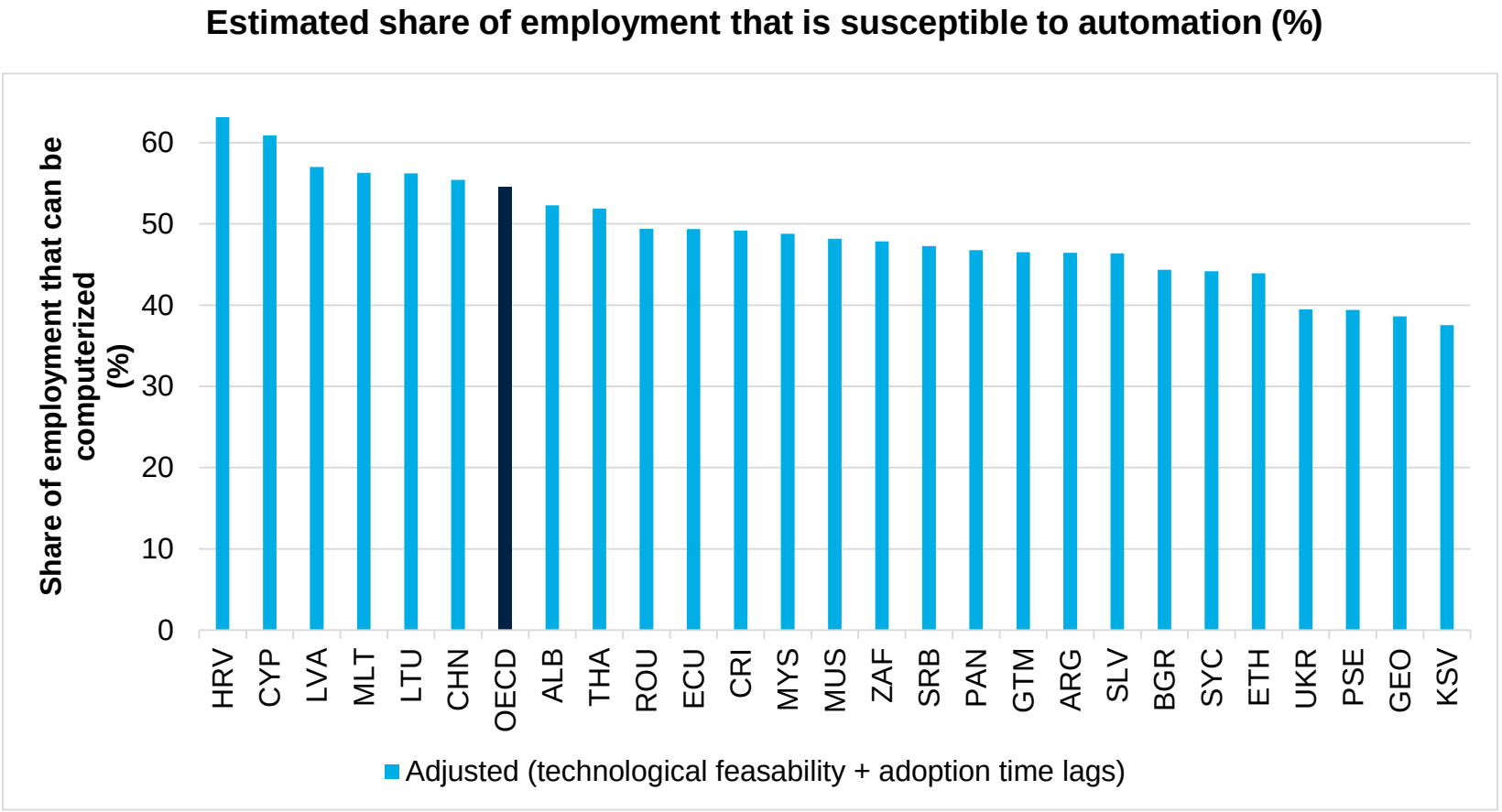
Routine skills can be substituted by technologies



Source: WDR 2016 team, based on household surveys, the Income Distribution Database (I2D2),ILO Laborsta database, China's Population Census, Frey and Osborne 2013, and Comin and Hobjin (2010).

Policies

Policies have to adapt to new realities…

Technology changes the skills required to succeed in a modern economy: digital literacy but also non-routine skills.

Technology also accelerates the pace of change, making skills obsolete more quickly and opening up new opportunities.

Technology also allows new opportunities to learn and deliver services

Investing in digital literacy…

Among workers:

- Coding bootcamps: Colombia, Kenya
- Training women for online freelance work: Kosovo
- Promoting adoption of ICT: Georgia

Among firms in developing countries: promoting incubators and start-ups (to increase incentives to invest in digital literacy)

- Kenya

…And investing in other skills that are complementary to technology

Equip workers with the skills that are complementary to technology (digital skills; generic skills):

- Refocus training programs to generic skills and to technical skills:
  - Including socioemotional skills: Togo; Turkey
- An important role for PES there because these are skills in which firms may underinvest (market failures)
  - Challenge is however to identify new technical skills in demand

Improve incentives for life-long learning:

- For individuals: Training accounts
- For industries: Work with sector-wide trade and employer unions to co-finance training and retraining in sector-specific training
- For firms: Subsidies for firms to provide firm-specific training

Using technology

To use information better - Connecting people to jobs:

- Information on jobs: (India: Babajobs; Peru: SMS-based intermediation)
- Information on workers: improve assessment and profiling of workers (Croatia: statistical profiling of jobseekers; Turkey: profiling of jobseekers; skills assessment)

To nudge workers to actively look for work- Phone and email allows to send reminders and help take action:

- Turkey: videos and SMS to support the job search
- USA: Emails timed to increase take-up of training

To train at a low cost and at a massive scale

- Kenya: deliver financial literacy and business development services through digital means
- Use IVR to reach out to worker with low digital literacy

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