

LEARNING

TO REALIZE EDUCATION'S PROMISE

**Worker Productivity and
Employability across economies**

#wdr2018



WORLD BANK GROUP

Presented by:

Tigran Shmis
Senior Education Specialist

Authors:

Alexandria Valerio
Lead Education Specialist

Ji Liu
Consultant

Three strategic dimensions of the WDR

Assess learning



to make it a serious goal

Act on evidence



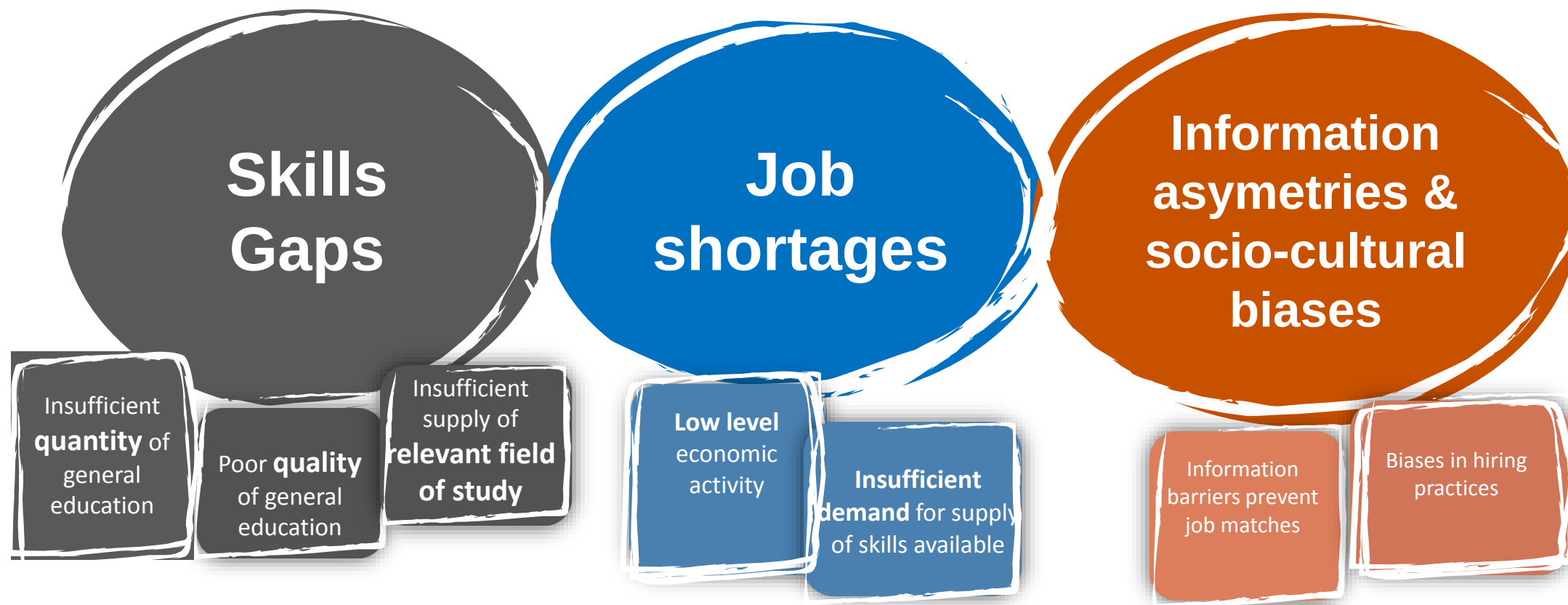
to make schools
work for all learners

Align actors

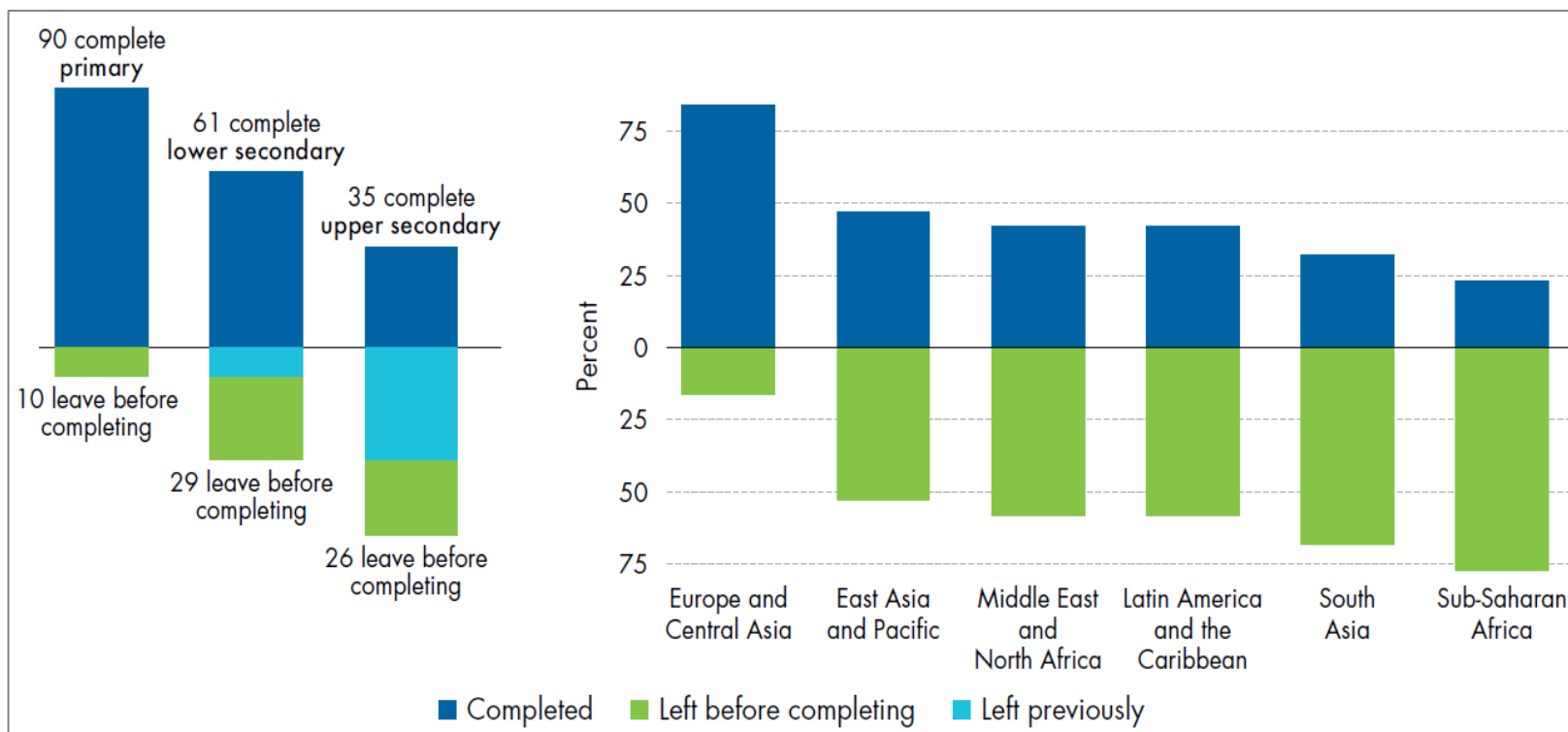


to make the whole
system work for learning

Worker Productivity and Employability: supply, demand, and other factors



Globally, just 35% of primary entrants complete upper secondary education; In SSA, less than 25%



Note: Compiled by WDR 2018 Team, with data from UNESCO (2010, 2015) and WIDE (2017). Estimates are for circa 2010

Skills Gaps

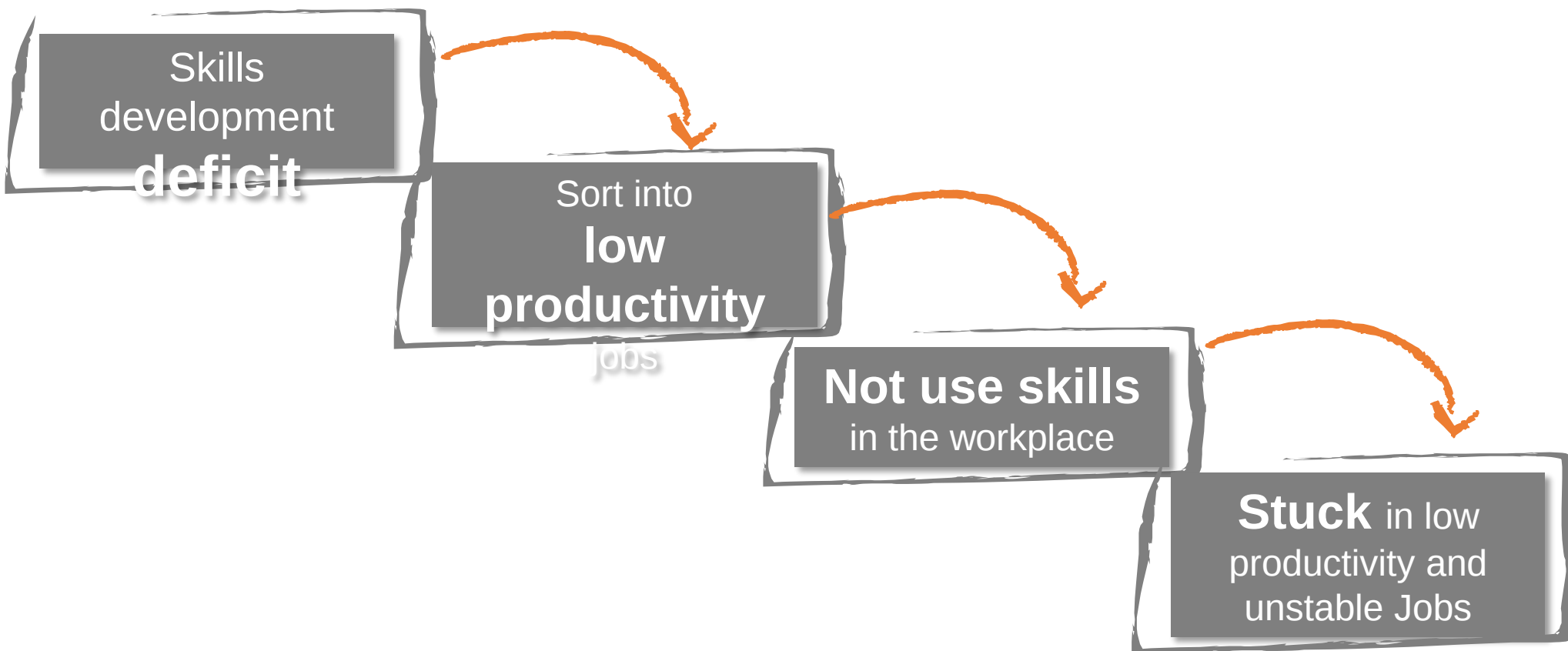
WORLD DEVELOPMENT REPORT

2018

Zooming in on **Low Quantity**: leaving school prematurely

Insufficient
quantity of
general
education

Poor quality
of general
education



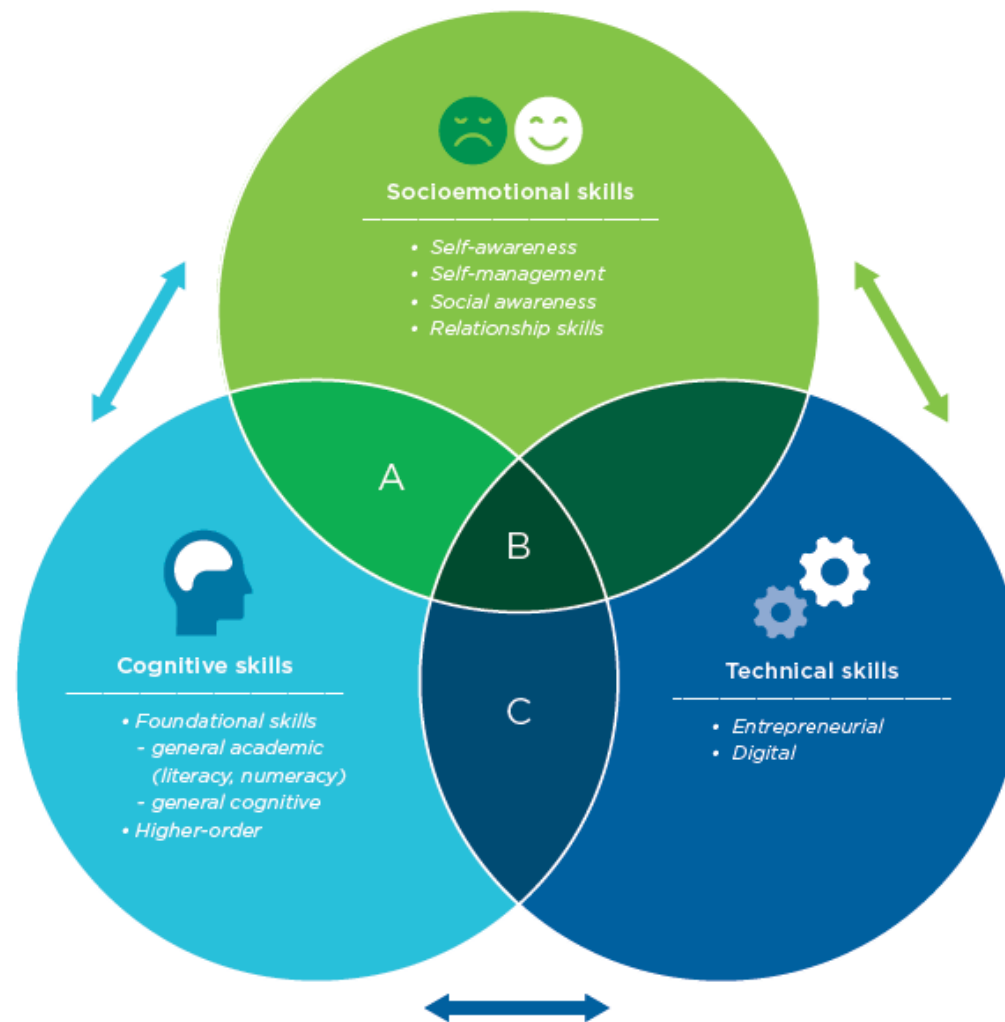
WORLD BANK GROUP

Skills Gaps

Insufficient
quantity of
general
education

Poor **quality**
of general
education

Zooming in on **Low Quality**: understanding skills interaction



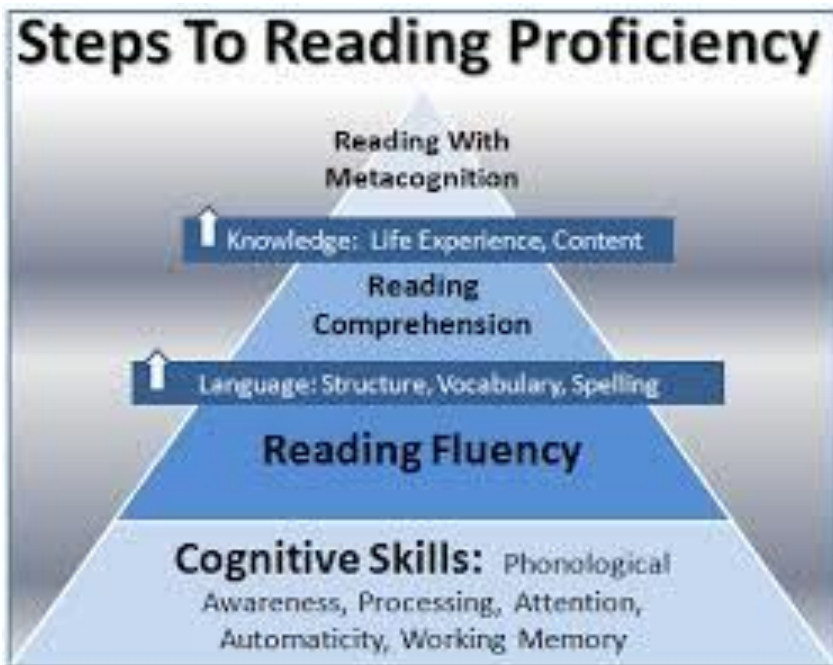
Skills Gaps

WORLD DEVELOPMENT REPORT

Zooming in on **Low Quality**: skills measurement

Insufficient
quantity of
general
education

Poor **quality**
of general
education

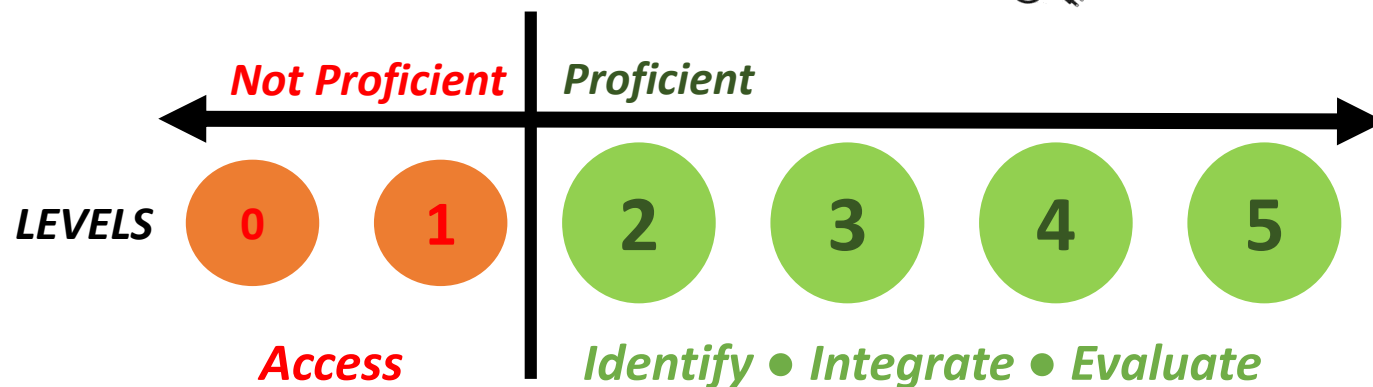


Adult skills surveys

OECD (PIAAC)

WB (STEP)

Literacy Skills

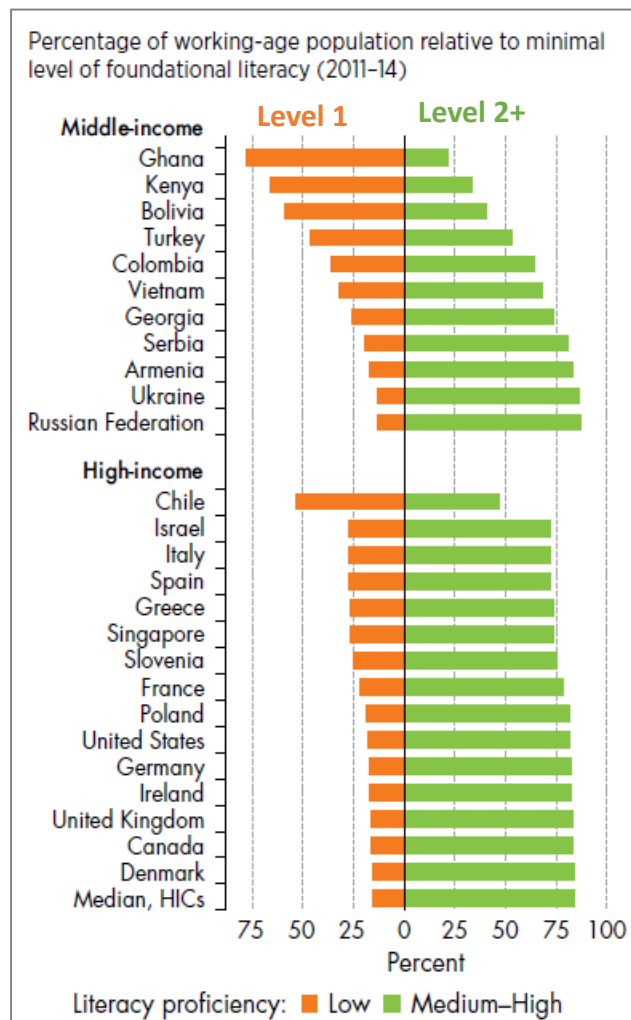


WORLD BANK GROUP

Nearly 2 billion working age adults (15-64) around the world have low literacy skills



Wealthier countries have higher literacy levels, but all countries face low-literacy challenges



Note: Compiled by WDR 2018 Team, with data from PIAAC (2011-2014) and STEP (2011-2014).

Formal education in different countries vary greatly in delivering literacy proficiency

Years of Formal Education Needed to Reach Basic Level 1 Literacy Proficiency		
9 years (Lower Secondary)	12 years (Upper Secondary)	16 years (Tertiary)
<i>Armenia*</i>	Canada	<i>Bolivia*</i>
Australia	Chile	<i>Ghana*</i>
Denmark	<i>Colombia*</i>	<i>Kenya*</i>
Estonia	France	
Finland	Germany	
<i>Georgia*</i>	Israel	
Ireland	Singapore	
Japan	Slovenia	
Korea	Turkey	
Netherlands	United States	
Norway		
Poland		
<i>Serbia*</i>		
Slovak Republic		
Sweden		
<i>Vietnam*</i>		

Note: Data from PIAAC , STEP Skills Survey (2011-14).

* denote STEP data countries



Insufficient **quantity** of general education

Poor **quality** of general education

Mean Literacy Score and Skills Use at Work

Green line denote fitted values

Worker Productivity and Skills Use at Work

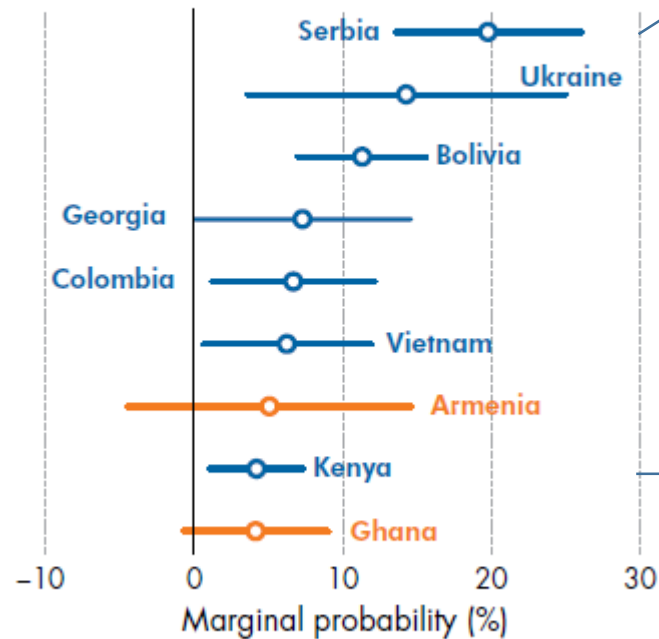
Weighted by Per Worker Output (2000); Green line denotes fitted values



Zooming in on **Low Quality**: implications

Workers with higher literacy proficiency are more likely to enter white-collar, better paying, stable jobs

Marginal probability of entering high-skill white-collar jobs relative to blue-collar jobs when scoring at level 2 or above in literacy proficiency, for all workers in urban areas of participating countries (2011-14)

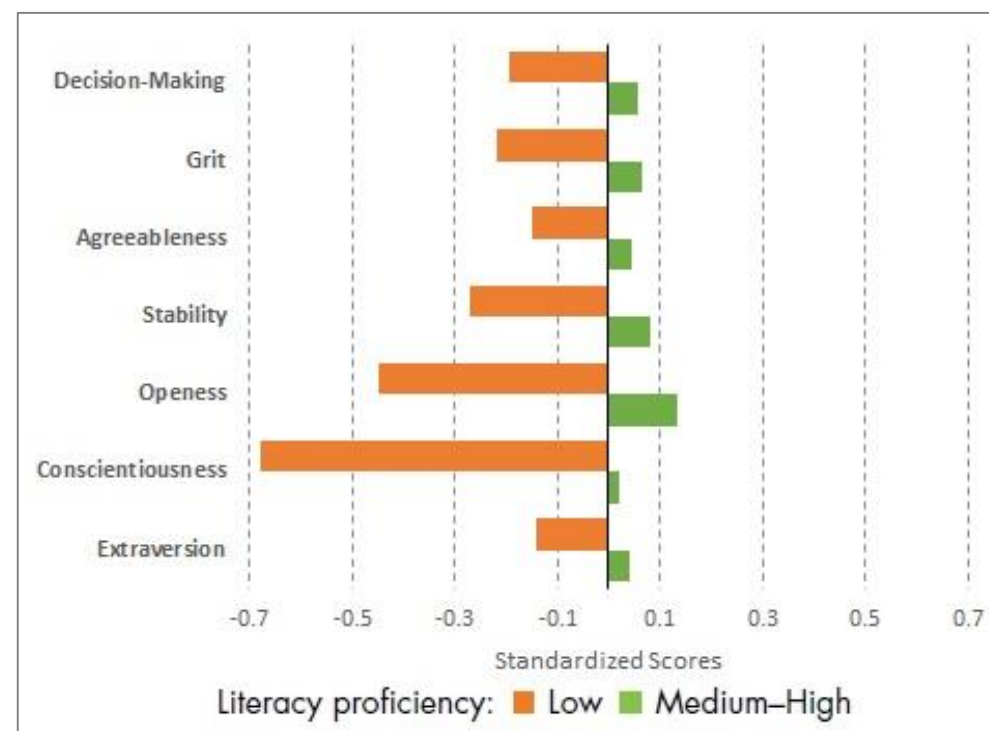
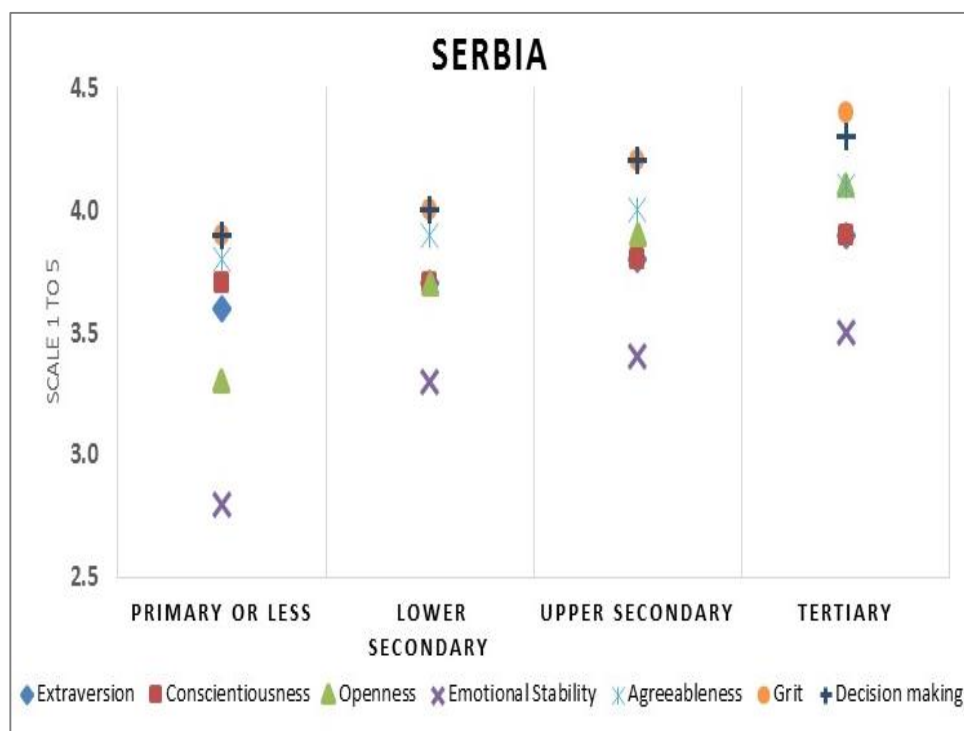


Avg. diff in wage/hr is 63
Serbian Dinar ($\approx$ \$.62)

Avg. diff in wage/hr is 94
Kenyan Shilling ($\approx$ \$.91)

Zooming in on **Low Quality**: cognitive and non-cognitive

Both quantity and quality of general education are correlated with better socio-emotional skills



Note: Data from STEP Skills Survey in Serbia (2014).

Zooming in: Understanding Young People Pathways



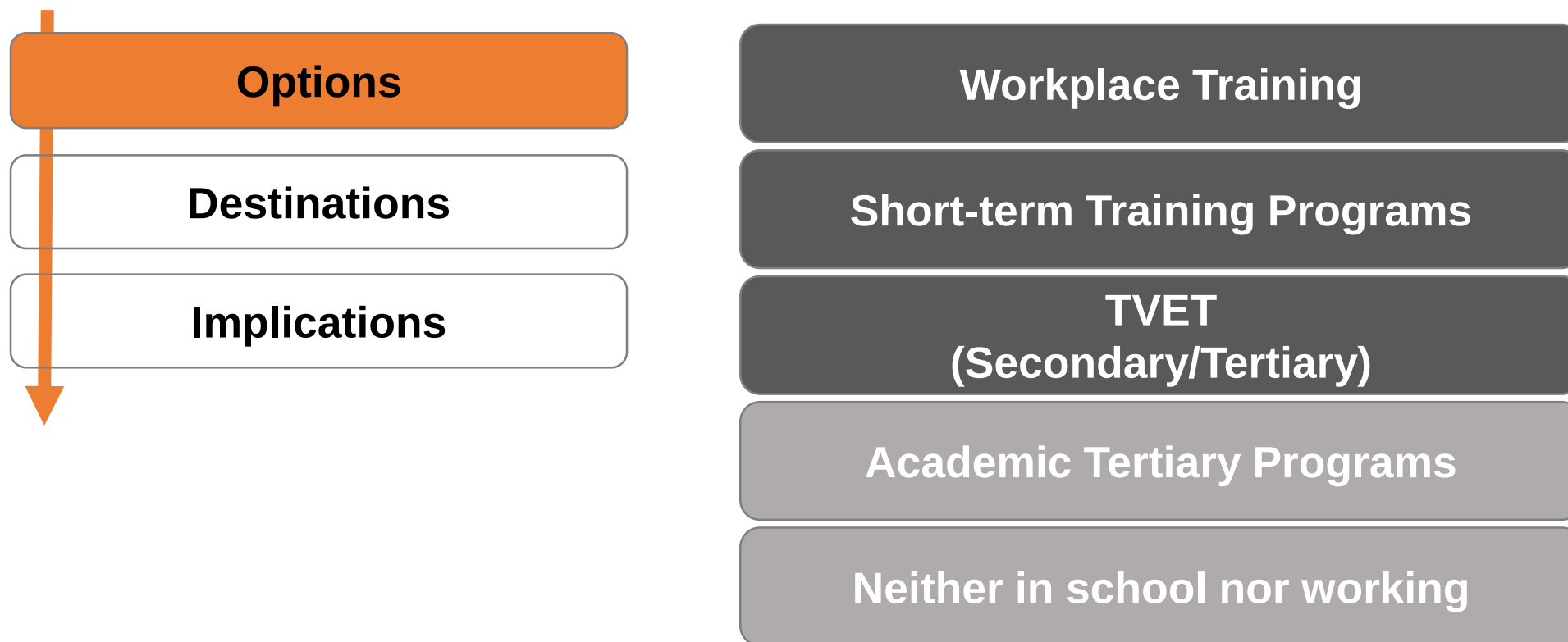
Young People Follow Different Pathways:



- Join the labor force / find employment
- Enroll in basic or post basic-equivalent job training
- Pursue further education
- Become inactive (not in school, not working)

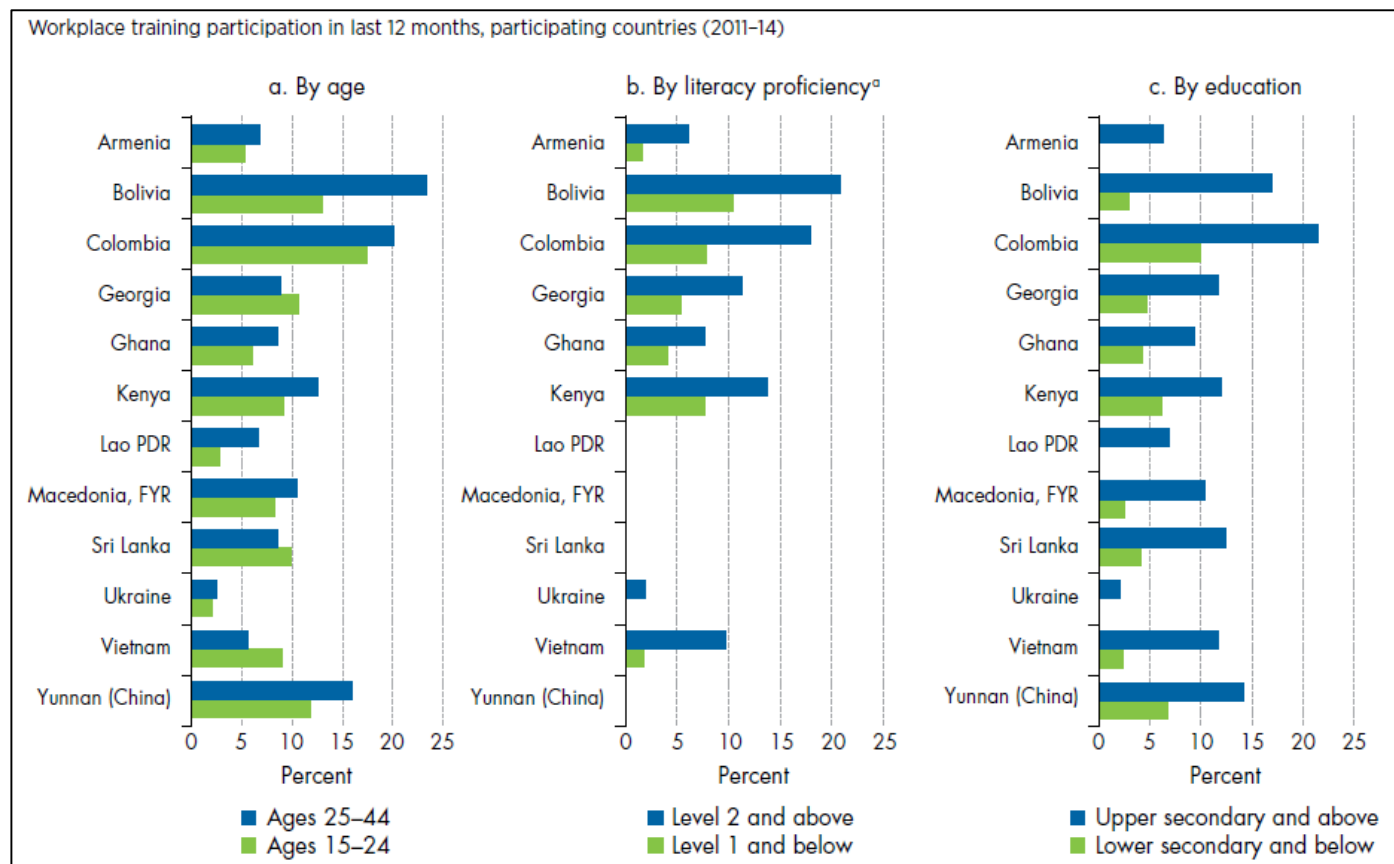
**But because of accumulated skills deficits,
finding a quality job is a challenge**







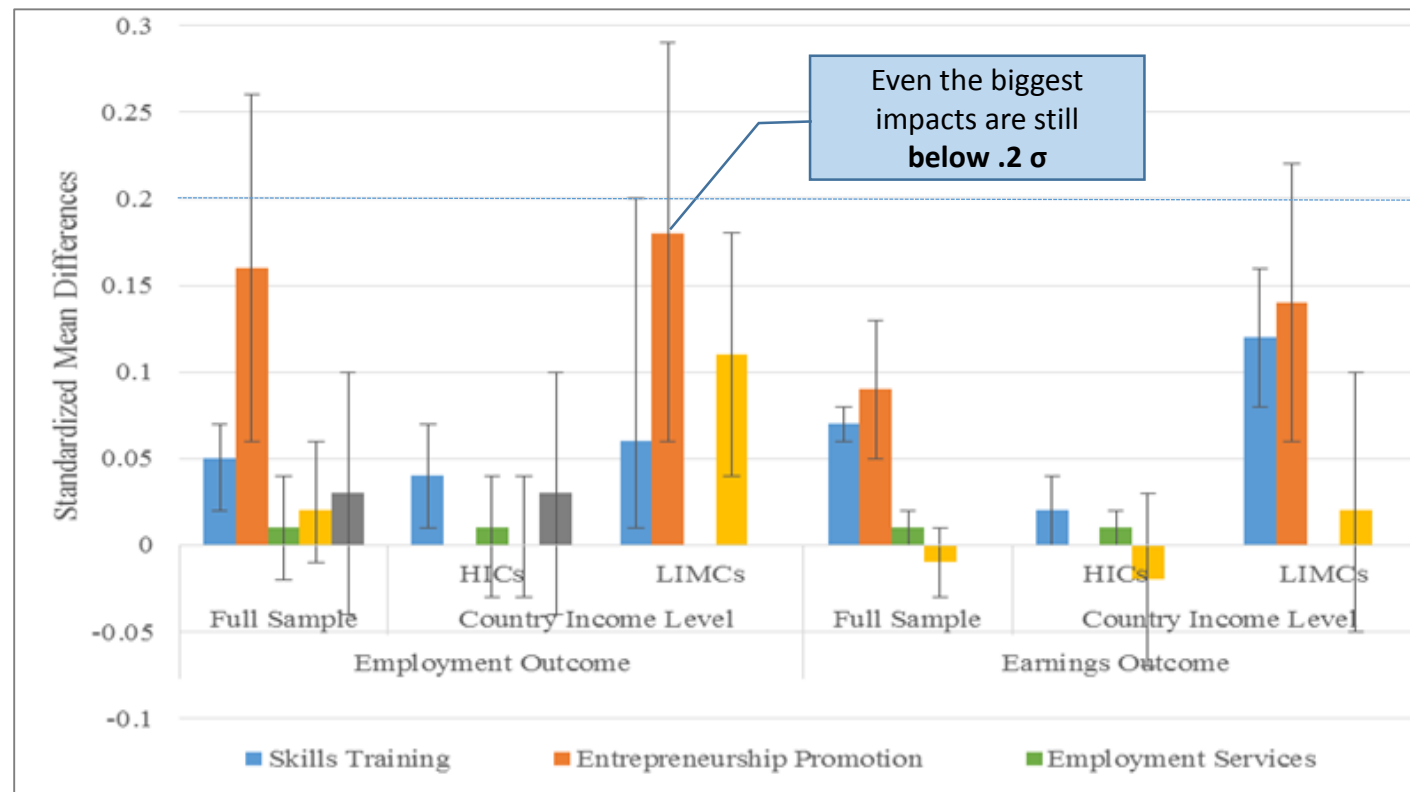
Less than 15% of young people receive **workplace training**, those who do tend to already have better literacy or education



Note: Data from STEP Skills Survey (2011-14).

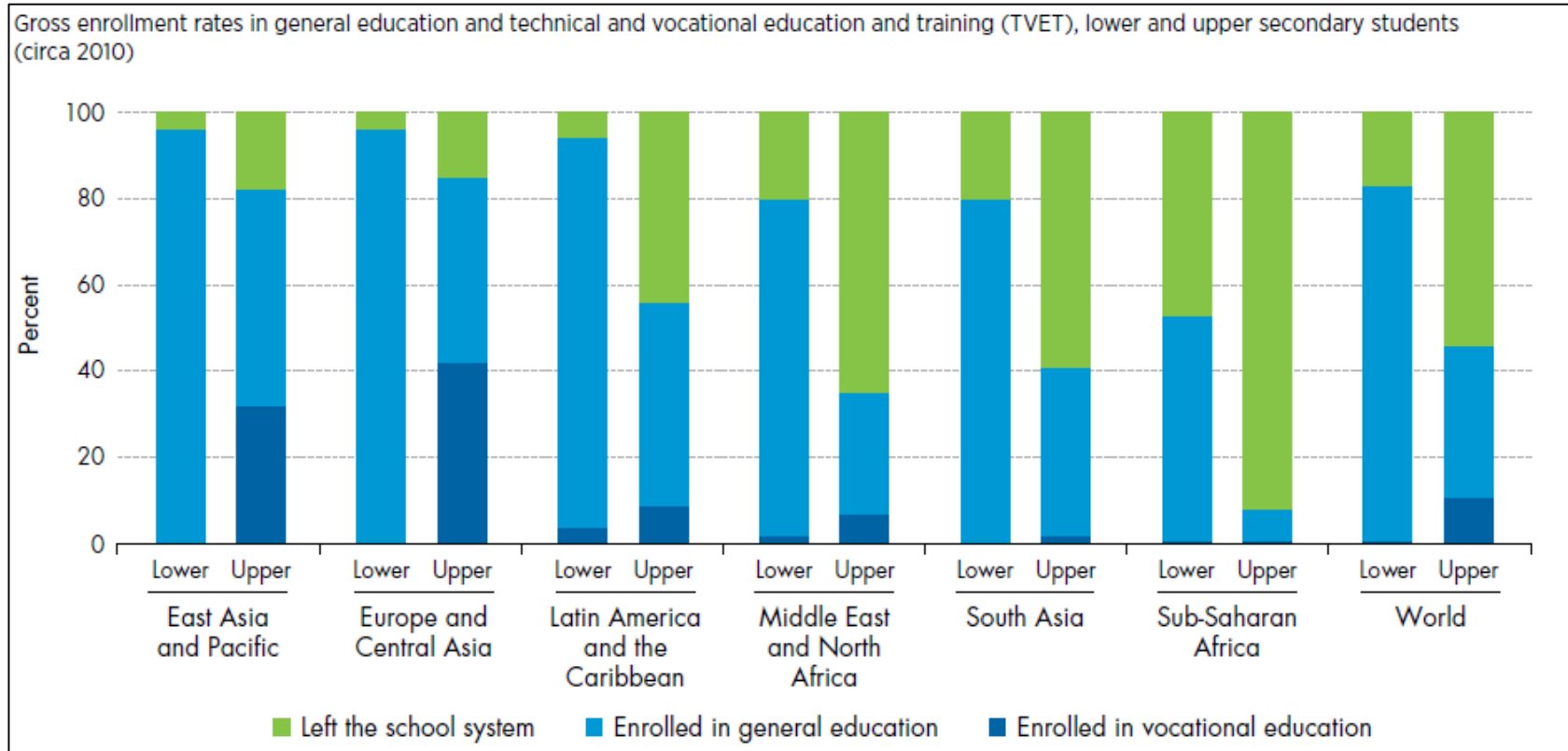


Even fewer young people enroll in **short term training programs**. STTs are costly, and less than 30% have positive, significant impacts



Note: Adapted from Kluge and others 2016. Standard mean differences of .2, .5, .8 are commonly considered as small, moderate, and large effects respectively.

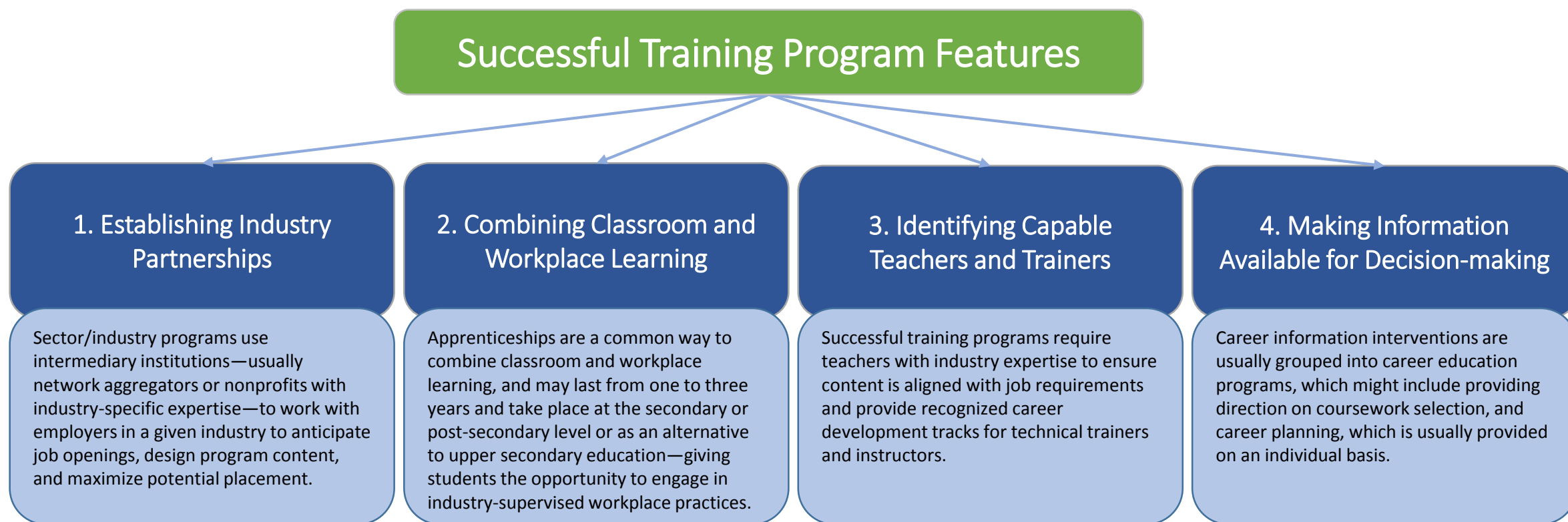
Globally, more students still leave school early than enroll in either general or TVET upper secondary education



Notes: compiled by WDR 2018 team, using data from UIS (2016).



Depending on the target population and context, interventions have to be tailored;
But, we find 4 successful design features that are common



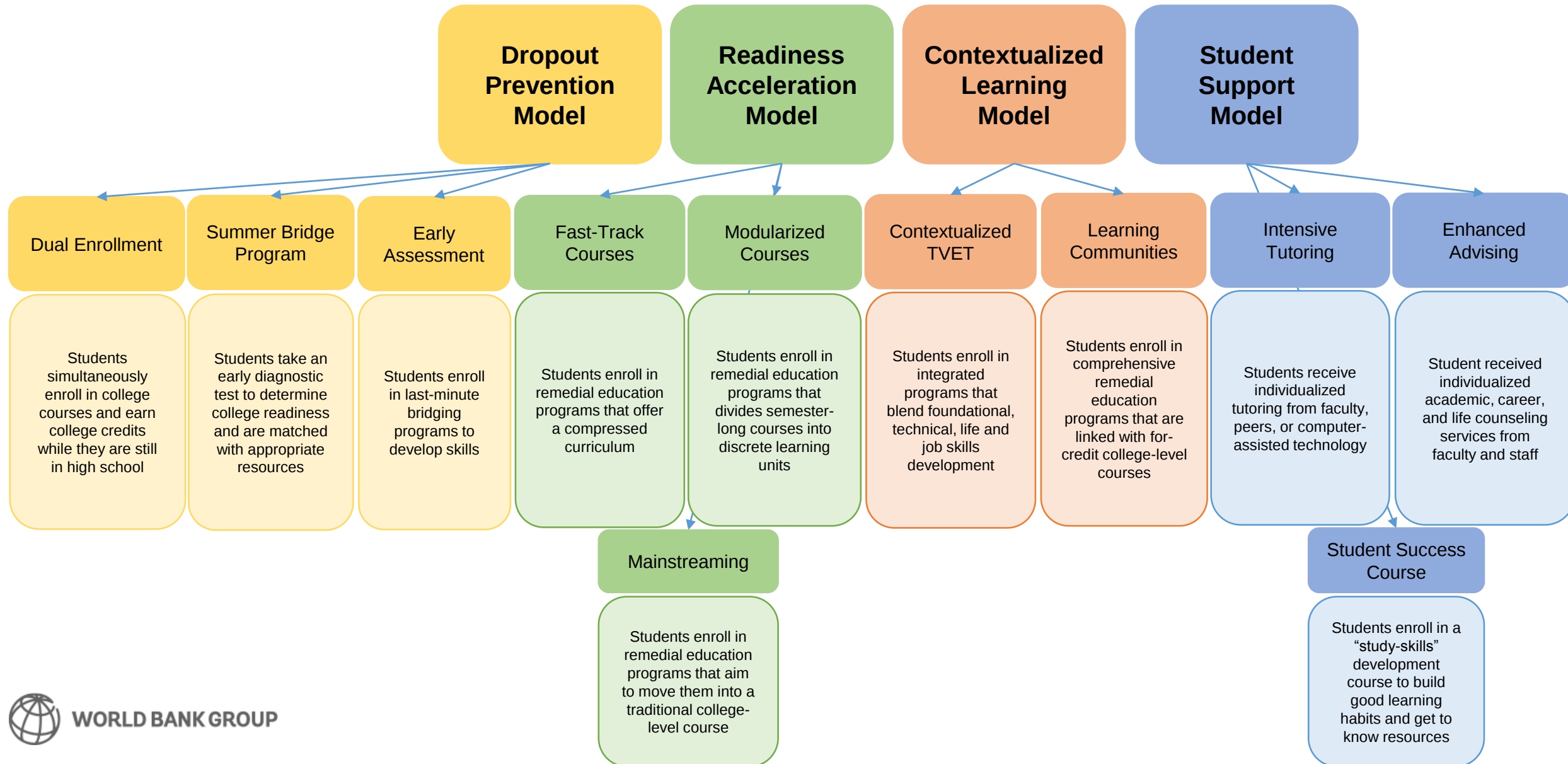
Zooming in:

Training Low-Skilled Young People

(Remedial/Developmental Education)



Evidence: Remedial/Developmental education models for young people



List of Remedial/Developmental Edu Programs by Model

Model Type	Sub-type	Name of Program
Dropout Prevention Model	Dual Enrollment	College Now (Karp et al., 2008 ; Michalowski, 2007 ; Kleiman, 2001)
	Dual Enrollment	Middle/Early College High School (Jobs for the Future, 2009 ; Greenberg, 1988)
	Early Assessment	California's Early Assessment Program (Howell et al., 2010)
	Early Assessment	El Paso Community College's College Readiness Initiative (Kerrigan and Slater, 2010)
	Early Assessment	New Programs: Social Emotional Learning Program (China: Wang et al., 2009); CroCooS (Hungary)
	Summer Bridge Program	Texas Developmental Summer Bridge Programs (Texas HECEB, 2009 ; Zuniga, 2008 ; Barnett et al., 2014)
Readiness Acceleration Model	Fast-Track	Mountain Empire Community College's Fast-Track Math (Zachry and Schneider, 2008)
	Fast-Track	University of Maryland - College Park (Adams, 2003)
	Fast-Track	Community College of Denver's FastStart Program (Bragg, 2009)
	Fast-Track	Ivy Tech Community Colleges in Evansville and Fort Wayne, Indiana (Brown and Ternes, 2009)
	Modularized Content	Math My Way at Foothill Community College (Epper and Baker, 2009)
	Modularized Content	SMART program at Jackson State Community College (Bassett, 2009)
	Mainstreaming	Accelerated Learning Program (ALP) at Community College of Baltimore County (Jenkin, 2011)
	Mainstreaming	San Francisco State University's Integrated Reading and Writing (Goen-Salter, 2008)
	Mainstreaming	Digital Bridge Academy (Jenkins, 2009)

List of Remedial/Developmental Edu Programs by Model

Model Type	Sub-type	Name of Program
Contextualized Learning Model	Contextualized TVET	I-BEST: Integrated Basic Education and Skills Training (Jenkins et al., 2009)
	Contextualized TVET	Charles Stewart Mott Foundation's Breaking Through initiative (Bragg and Barnett, 2009)
	Learning Communities	Queensborough Community College (Weissman et al., 2011)
	Learning Communities	Kingsborough Community College (Scrivener et al., 2008)
	Learning Communities	Hillsborough Community College (Weissman et al., 2010)
Student Support Model	Intensive Tutoring	Mountain Empire Community College's Peer-Led Team Learning (Zachry, 2008)
	Enhanced Advising	Lorain County Community College (Elyria, Ohio), Owens Community College (Scrivener and Weiss, 2009)
	Enhanced Advising	South Texas College's Beacon Mentoring program (Vishner et al., 2010)
	Enhanced Advising	Youth Coaching Project (Antwerp, Belgium: Tassinari, 2017)
	Student Success	Hillsborough Community College (Scrivener et al., 2008),
	Student Success	Houston Community College (Scrivener et al., 2009)
	Student Success	Kingsborough Community College (Brooklyn, New York)
	Student Success	Chaffey College (Rancho Cucamonga, California)
	Student Success	Guilford Technical Community College (Jamestown, North Carolina)



Thank you!

Tigran Shmis
tshmis@worldbank.org