



Making trade work for inclusive growth: the role of skills development

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Skills and Skill Levels: ILO Definitions



- ***Skill*** is the ability to carry out the tasks and duties of a given job.
- a ***Job*** is a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self-employment.
- ***Skill levels*** are defined according to the complexity and range of the tasks and duties to be performed in an occupation.
- An ***Occupation*** is a set of jobs whose main tasks and duties are characterised by a high degree of similarity.



International Standard Classification of Occupations (ISCO)

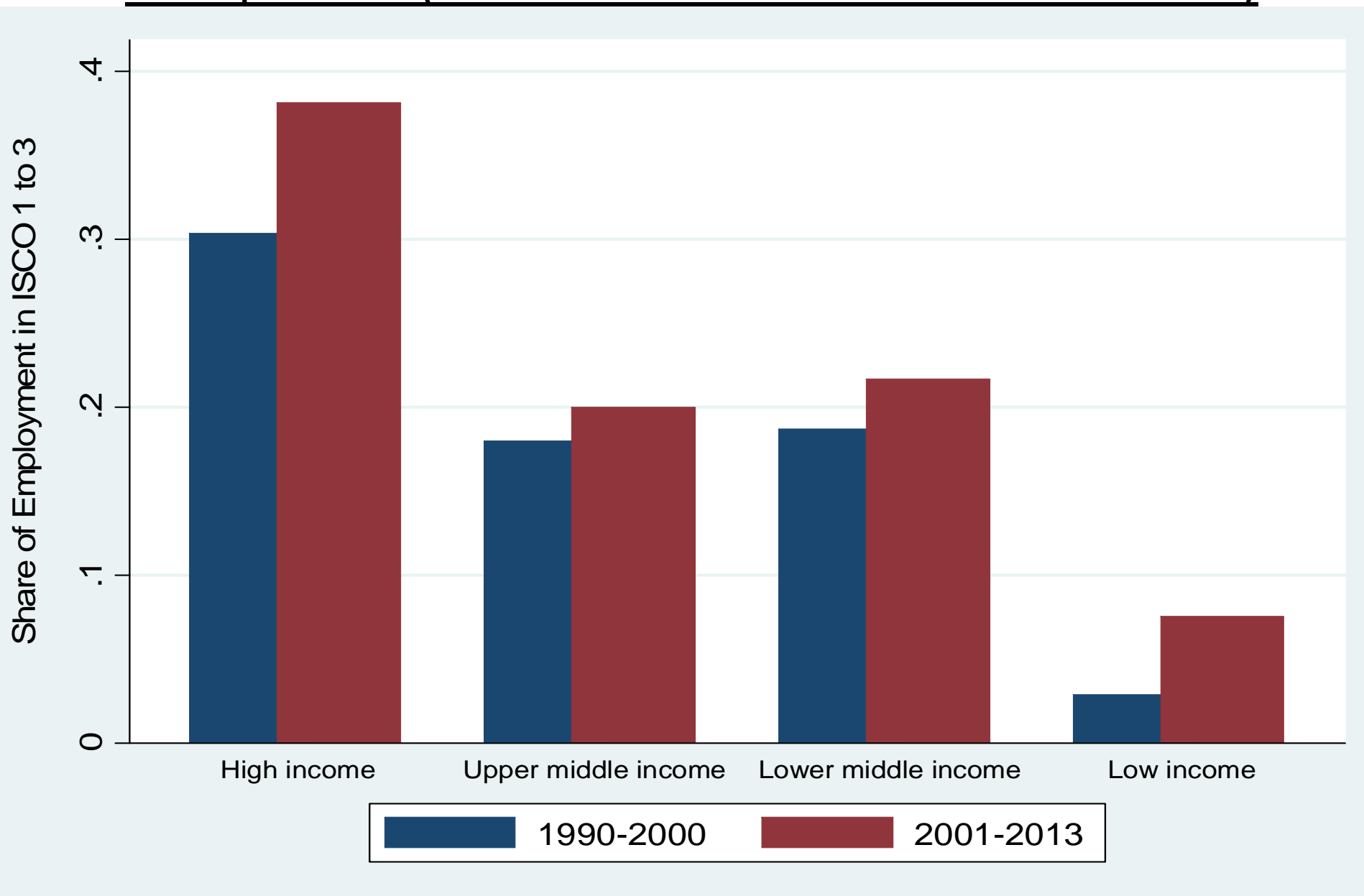
In the latest ILO revision (2008) of ISCO, there are **four broad skills levels** that are measured operationally in terms of:

- **the nature of the work** performed in an occupation in relation to the characteristic tasks and duties defined for each skill level
- **the level of formal education** defined in terms of the International Standard Classification of Education (ISCED-97) required for competent performance of the tasks and duties involved
- **the amount of informal on-the-job training and/or previous experience** in a related occupation required for competent performance of these tasks.

Mapping of ISCO Major Groups to Skills Levels

ISCO major groups	Skill level
1 Managers	3 and 4
2 Professionals	4
3 Technicians	3
4 Clerical Support Workers	2
5 Services and Sales Workers	2
6 Skilled Agricultural, Forestry and Fishery Workers	2
7 Craft and Related Trades Workers	2
8 Plant and Machine Operators, and Assemblers	2
9 Elementary Occupations	1
0 Armed Forces Occupations	1, 2 and 4

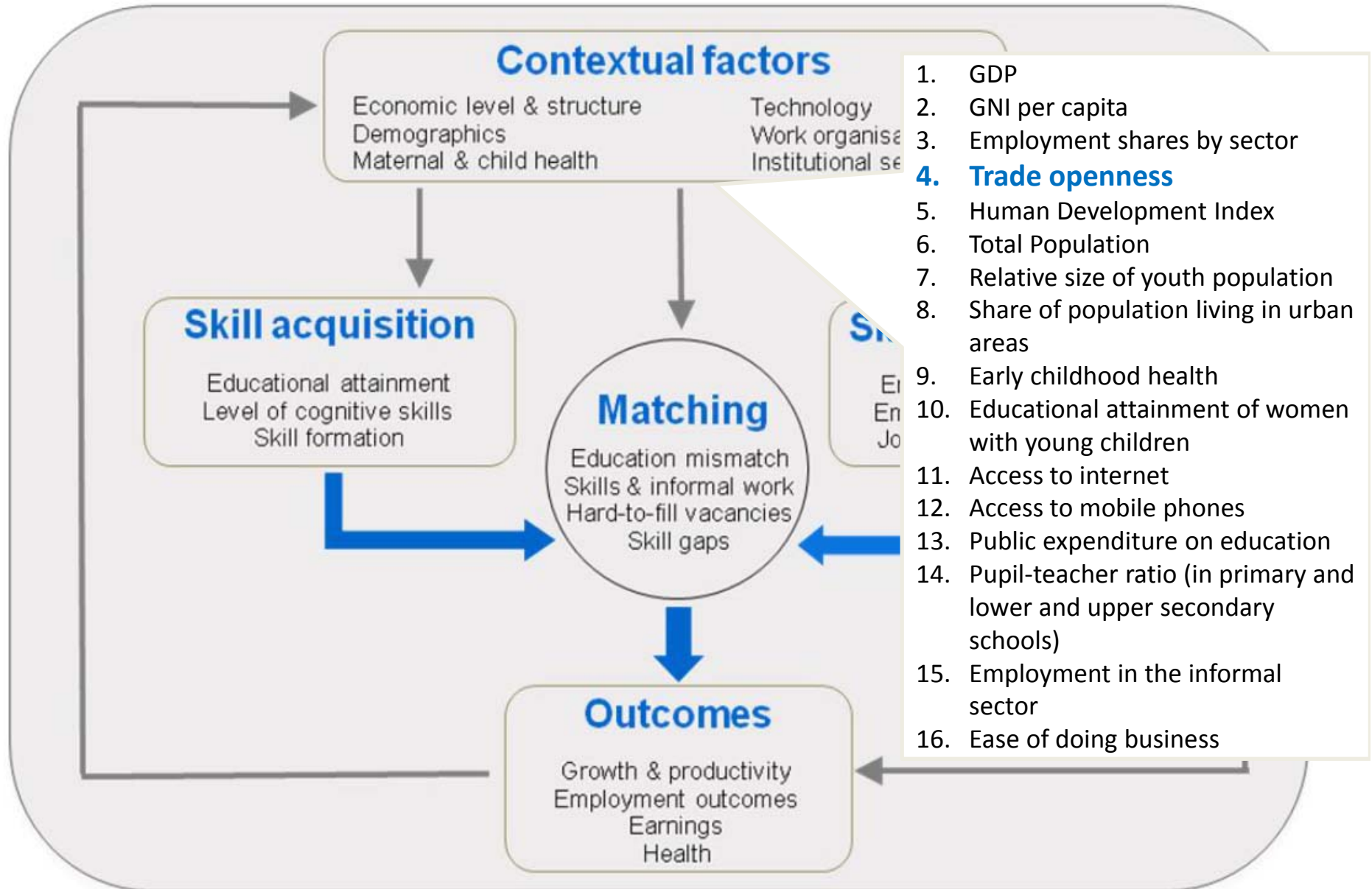
Changes in the Mean Employment Share of Higher-Skilled Occupations (between 1990-2000 and 2000-2013)



Mean Employment Shares of Lower-Skilled Occupations in 1990-2000 and 2000-2013

ISCO major groups	1990-2000	2001-2013	% Point Change
4 Clerical Support Workers	9.3%	8.9%	-0.4%
5 Services and Sales Workers	13.7%	15.6%	1.9%
6 Skilled Agricultural, Forestry and Fishery Workers	12.5%	9.4%	-3.1%
7 Craft and Related Trades Workers	15.2%	12.5%	-2.7%
8 Plant and Machine Operators, and Assemblers	9.5%	8.0%	-1.5%
9 Elementary Occupations	14.2%	14.4%	0.2%

Conceptual Framework: Trade and Skills



“INDICATORS OF SKILLS FOR EMPLOYMENT AND PRODUCTIVITY: A CONCEPTUAL FRAMEWORK AND APPROACH FOR LOW-INCOME COUNTRIES”, OECD-World Bank in collaboration with ETF, ILO, and UNESCO, 2013.

Trade → Economic Level and Structure

Trade can transform the level and structure of an economy through:

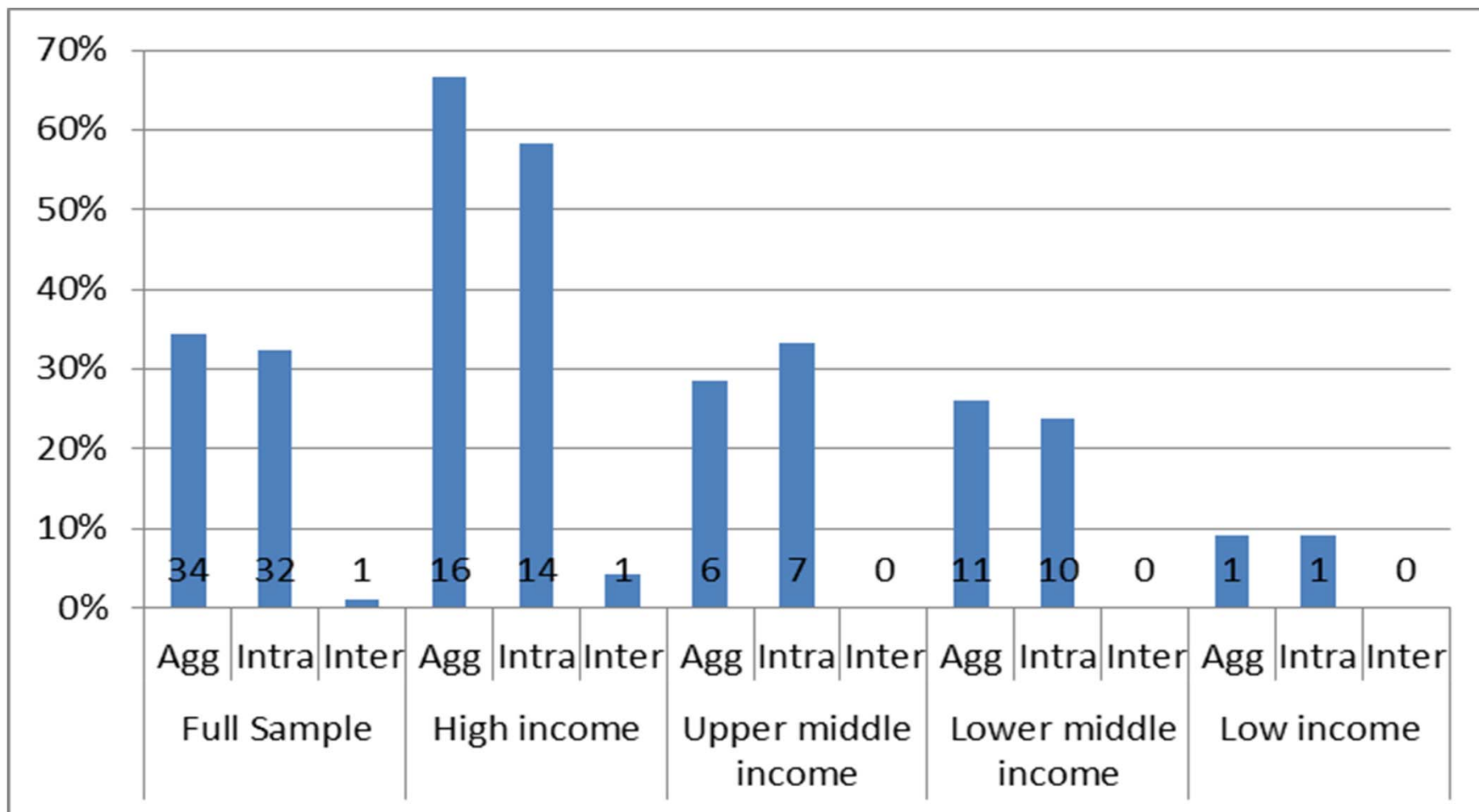
(i) trade-induced **reallocation of resources** from lower- to higher-productivity sectors and firms
AND

(ii) **within-sector or within-firm productivity improvements** due to:

- export-generated economies of scale, learning, and production upgrading
- sophisticated imports of capital and intermediate inputs
- the diffusion of technological and market knowledge via trade

Trade → Economic Level and Structure

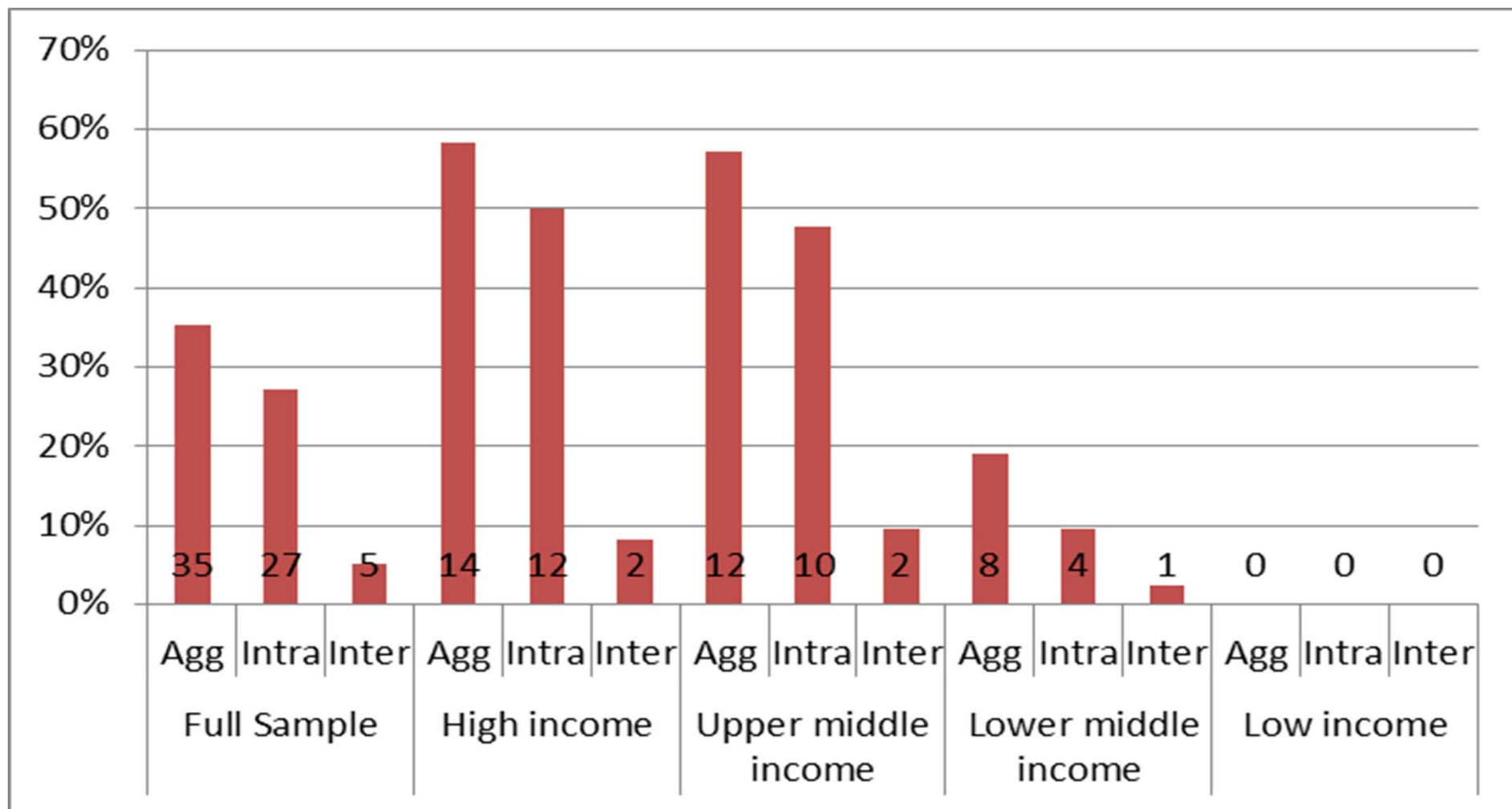
Proportion of Countries with Significant and Positive Correlations
between Total Export Growth and Aggregate and Intra- and Inter-Sectoral Components of
Labour Productivity Growth (1992 to 2012)



Cheong (forthcoming), "Trade, Structural Transformation, and Employment"

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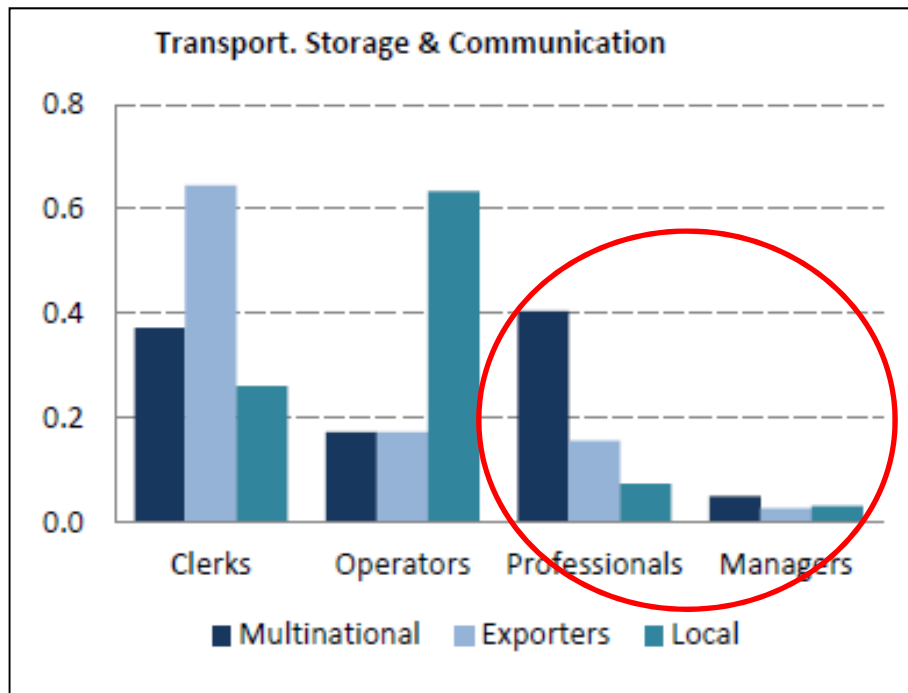
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Trade → Technology

- **Foreign sources of technology** account for about **90 per cent of domestic productivity growth** in most countries (Keller, 2004)
- **Trade** can encourage **technology adoption and innovation** by firms when:
 - **More sophisticated imported machines and other production technologies** become available
 - **More and better-quality imported parts and components** become available
 - **Export demand** allows for or compliance with **standards and regulations in foreign markets** require **technological upgrading**
 - **Competitive pressures from imports**
- Technology adoption is very often a driver of changing skills needs, and **trade-induced technology adoption** (Bustos, 2011) **tends to reinforce need for higher-level skills.**

Trade → Work Organization

- **Trade** puts pressure on firms to **improve their operating processes and HR management** and **enhance employee job satisfaction and commitment** in order to **raise quality, flexibility, and responsiveness of production**.
- This pressure can **change the occupational mix in favour of higher-skill occupations**.



Davidson et al., "Global Engagement and the Occupational Structure of Firms", 2014.

Brambilla, Lederman, and Porto, "Exports, Export Destinations, and Skills", 2012

TABLE 1—DESCRIPTIVE STATISTICS FROM FIRM SURVEY (EIA) AND CUSTOMS RECORDS

	All firms (1)	Exporters (2)	High-income exporters (3)
<i>Panel A</i>			
Exported in a given year	0.59		
Exported during sample period	0.68		
Exports/sales	0.08	0.13	0.15
Number of destinations	3.3	4.9	5.4
Observations	2,544	1,499	1,307
<i>Panel B</i>			
Number of workers	89.7	1.22*** (0.04)	0.39*** (0.07)
Annual sales in 100,000 US dollars	8.04	1.73*** (0.05)	0.54*** (0.09)
Average annual wage in US dollars	12,154	0.48*** (0.02)	0.12*** (0.03)
Share of nonproduction workers	0.26	0.05*** (0.01)	0.03*** (0.01)

Skills Challenges

Education and training systems have not been sufficiently responsive to trends in skills requirements, resulting in rising skills mismatch:

- Employers cannot find the skills they need and cannot easily develop the skills they need in their employees
- Qualified workers cannot find jobs

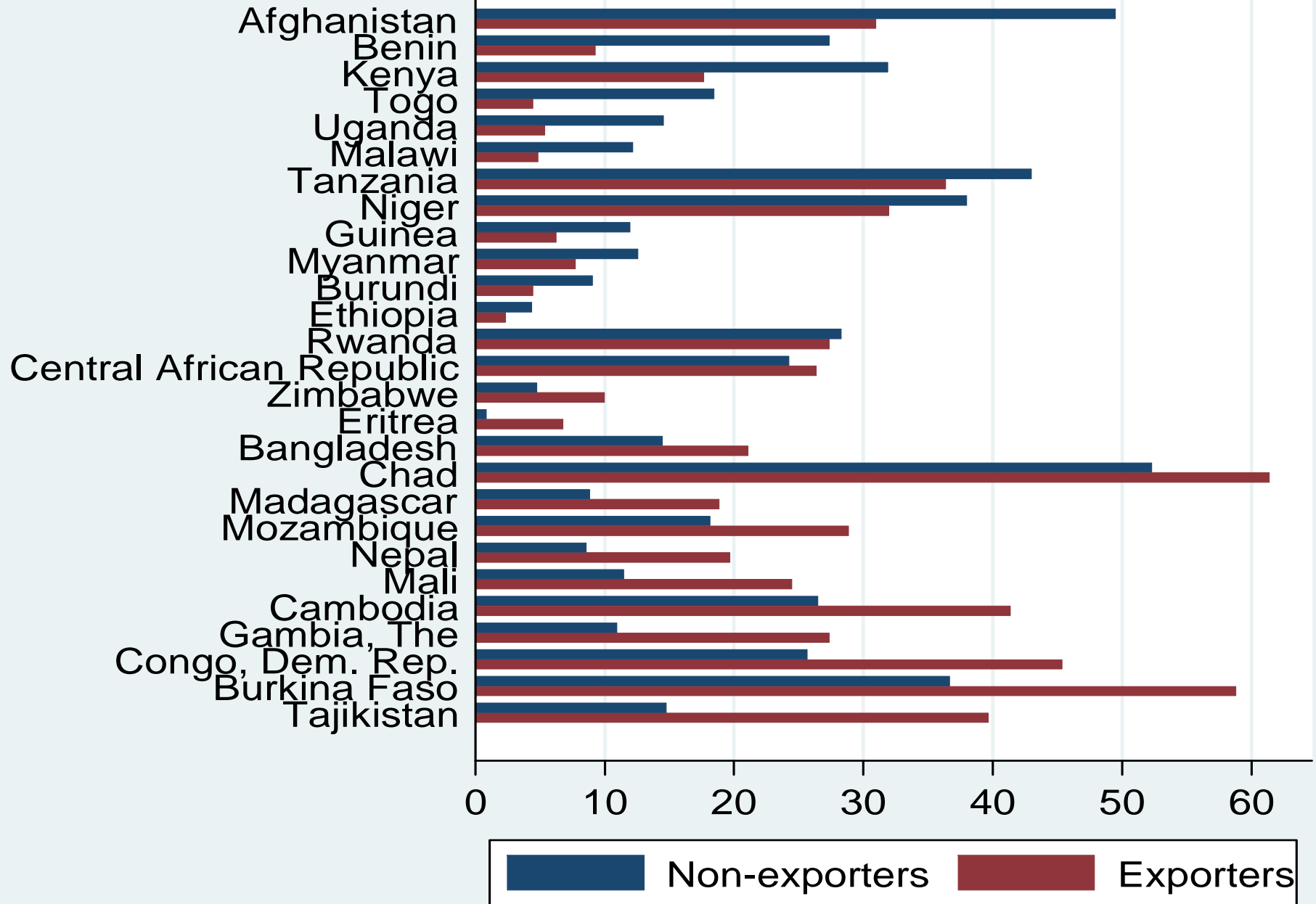
Share of firms identifying an inadequately educated workforce as a major constraint to their operations (%)

	All Countries	High Income	Upper Middle Income	Lower Middle Income	Low Income
Countries	138	24	45	42	27
All Firms	23%	21%	26%	23%	21%
Exporters	24%	23%	26%	23%	23%
Non-exporters	23%	21%	26%	23%	21%

Data Source: World Enterprise Surveys (latest years), World Bank, 2015

Share of firms in low-income countries

identifying an inadequately educated workforce as a major constraint to their operations (%)



Skills Challenges

Skills challenges that have led to a focus on policy, especially among low- and middle-income countries, are:

- **Skills mismatch**



- **Limited involvement of social partners**



- **Poor quality and relevance of training**



- **Limited access to training opportunities**



- **Weak coordination in the system**



ILO Human Resources Development Recommendation (No.195, 2004)

Provides policy guidelines and key principles of a sound skills development policy:

- ✓ *Shared responsibilities:* government is primarily responsible for pre-employment training, employers for further training, and individual workers for making use of opportunities for education and training.
- ✓ *Improved matching of skills demand and supply:* the skills development system needs to be responsive and relevant to labour market needs.
- ✓ *Skills as an integral part of broader policies:* coordination with national, sectoral or local development strategies is crucial to effectively linking skills development with employment and productivity growth.
- ✓ *Equal opportunities:* meeting skills demands means extending training opportunities across all segments of society.

Conclusions

- Based on occupational data, **skills requirements** appear to have **shifted upwards** in **past 20 plus years**.
- **Trends in tastes, technology, and trade** have **contributed to this shift** by reducing demand for routine, manual tasks in favour of activities requiring higher levels of skill.
- About **23% of firms worldwide** consider **skills gaps** a **major obstacle** to their business.
- **In many countries** (e.g., half of countries in low-income group), **proportionately more exporting firms** **complain about skills gaps** than non-exporters.
- **Considering trade when addressing skills challenges** is **crucial** for ensuring that **more firms and workers** can **participate** in and **benefit** from **global markets**.



Thanks for your kind attention!



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