

### The Future of Education, Gender and Work The World Economic Forum's System Initiatives



### Each System Initiative is designed to engage a multistakeholder ecosystem of the most relevant actors and experts:



Consumption



Digital Economy and Society



Economic Growth and Social Inclusion



Education, Gender and Work



Energy



Environment and Natural Resource Security



Financial and Monetary Systems



Food Security and Agriculture



Health and Healthcare



Information and Entertainment



International Trade and Investment



Long-Term Investing, Infrastructure and Development



**Mobility** 



**Production** 

### The Future of Education, Gender and Work System Initiative Overview



#### Education and Skills

Reshape education for tomorrow's workforce and impart new skills to today's workforce.

#### **Work and Employment**

Understand the changing nature of work and help regions/industries adapt to the future.

#### **Gender Parity**

Help leaders develop mechanisms to close gender gaps in education and work.

### 1. Insight

Supporting informed debate and action

- The Human Capital Report
- New Vision for Education Framework
- The Human Capital Report
- The Future of Jobs Report

- The Global Gender Gap Report
- The Industry Gender Gap Report
- Toolkit for Accelerating Gender Parity
- Future of Jobs and Skills Reports for Africa, MENA and Europe

### 2. Dialogue

Developing consensus and setting priorities

- A New Deal for Lifelong Learning
- Jobs of the Future

 Accelerating Gender Parity in High Growth Sectors

White paper(s) summarizing dialogues output

#### 3. Action

Facilitating collaborative, multi-stakeholder action

- Closing the Skills Gap Initiatives
  - MENA
  - Africa
  - Europe
  - US (scoping)

- Future of Work
  - · Reskilling Maps
  - Toolkits for business and policymakers
  - Frontier issues (platform workforce, post-work society, etc)

- Gender Parity Taskforces
  - Chile
  - Argentina
  - Scoping (multiple countries)

## The Future of Education, Gender and Work Analytical Work on the Future of Jobs and Skills: Two Examples







January 2016

May 2017

### The Future of Education, Gender and Work The Future of Jobs Report: Research Methodology

WORLD ECONOMIC FORUM

Number of

Figure 1A: Sample overview by number of employees

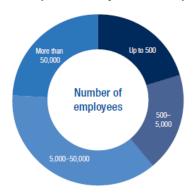
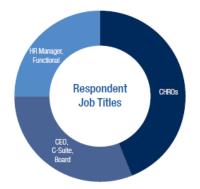


Figure 1B: Sample overview by respondent job titles



#### Methodology

The Future of Jobs Report's research framework has been shaped and developed in collaboration with the Global Agenda Council on the Future of Jobs and the Global Agenda Council on Gender Parity, including leading experts from academia, international organizations, professional service firms and the heads of human resources of major organizations. Our analysis groups job functions into specific occupations and broader job families, based on a streamlined version of the O\*NET labour market information system used by researchers worldwide.

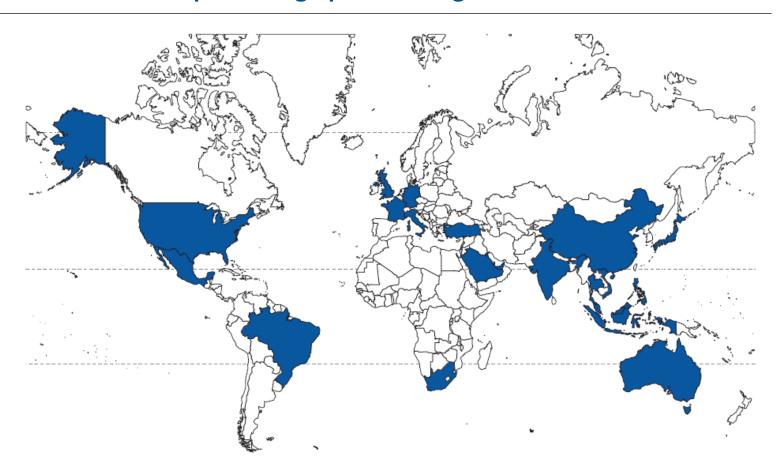
The dataset that forms the basis of the *Report* is the result of an extensive survey of CHROs and other senior talent and strategy executives from a total of 371 leading global employers, representing more than 13 million employees across 9 broad industry sectors in 15 major developed and emerging economies and regional economic areas.

Table 1: Employees represented by companies surveyed

Industry group	employees
Basic and Infrastructure	1,486,000
Chemicals	
Infrastructure and Urban Development	
Mining and Metals	
Consumer	1,672,000
Agriculture, Food and Beverage	
Retail, Consumer Goods and Lifestyle	
Energy	1,506,000
Energy Utilities and Technology	
Oil and Gas	
Renewable Energy	
Financial Services & Investors	1,050,000
Banking and Capital Markets	
Insurance and Asset Management	
Private Investors	
Institutional Investors, Sovereign Funds, Family Offices	
Healthcare	821,000
Global Health and Healthcare	
Information and Communication Technology	2,447,000
Information Technology	
Telecommunications	
Media, Entertainment and Information	358,000
Media, Entertainment and Information	
Mobility	2,602,000
Aviation and Travel	
Automotive	
Supply Chain and Transportation	
Professional Services	1,607,000
Professional Services	
Industries Overall	13,549,000

## The Future of Education, Gender and Work The Future of Jobs Report: Geographic Coverage





### The Future of Education, Gender and Work The Fourth Industrial Revolution: Impact on work and skills



#### Timeframe to impact industries, business models

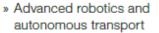
### Impact felt already

- » Rising geopolitical volatility
- » Mobile internet and cloud technology
- » Advances in computing power and Big Data
- » Crowdsourcing, the sharing economy and peer-to-peer platforms
- » Rise of the middle class in emerging markets
- » Young demographics in emerging markets
- » Rapid urbanization
- » Changing work environments and flexible working arrangements
- » Climate change, natural resource constraints and the transition to a greener economy

#### 2015-2017

- » New energy supplies and technologies
- » The Internet of Things
- » Advanced manufacturing and 3D printing
- » Longevity and ageing societies
- » New consumer concerns about ethical and privacy issues
- » Women's rising aspirations and economic power

#### 2018-2020

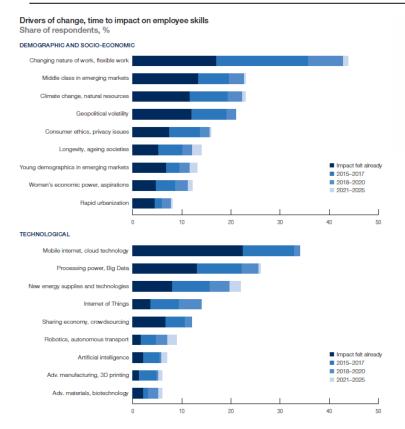


- » Artificial intelligence and machine learning
- » Advanced materials, biotechnology and genomics



# The Future of Education, Gender and Work Skills requirements will change significantly







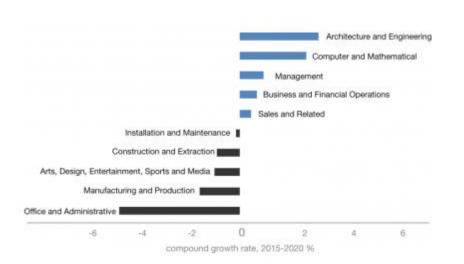
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of core skills will change between 2015 and 2020

	uption across countries industries	48% 42% 41% 41% 39%	Italy India China Turkey South Africa	
43% 42% 39%	Financial Services & Investors Basic & Infrastructure Mobility	39% 38% 37%	Germany France Mexico	average
35% 33% 30% 30% 29% 27%	Information & Communication Technology Professional Services Energy Consumer Health Media, Entertainment & Information	31% 29% 28% 27% 25% 21% 19%	Brazil United States United Kingdom Australia Japan Gulf Cooperation ASEAN	disruption

### The Future of Education, Gender and Work Gender Parity in the Fourth Industrial Revolution?





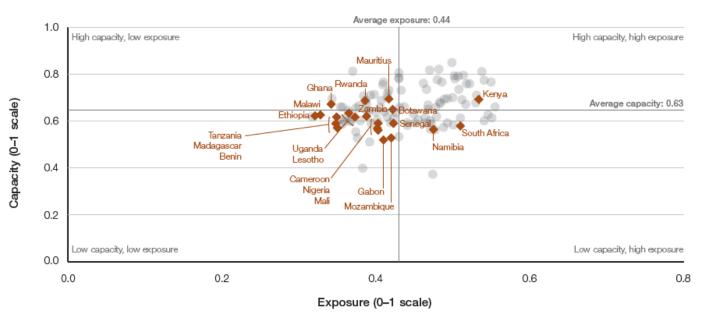
Job family	Share of women
Architecture and Engineering	11%
Computer and Mathematical	23%
Management	25%
Business and Financial Operations	43%
Sales and Related	41%
Installation and Maintenance	8%
Construction and Extraction	10%
Arts, Design, Entertainment, Sports and Media	48%
Manufacturing and Production	20%
Office and Administrative	54%

Source: Future of Jobs Report, World Economic Forum

## The Future of Education, Gender and Work Thoughts on the Way Forward: The Case of Africa



Figure 3: Africa's capacity to adapt and exposure to the future of jobs



Source: World Economic Forum analysis.

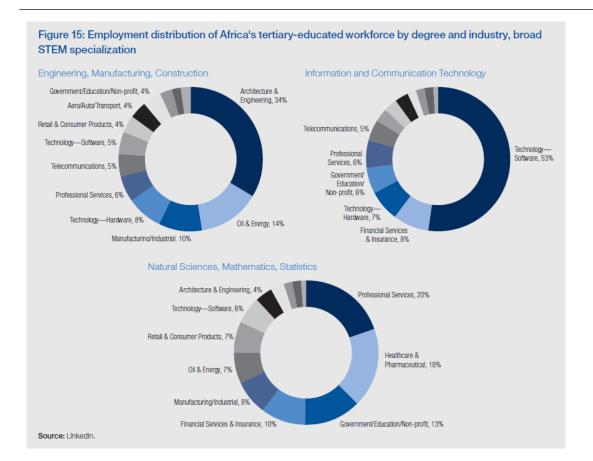
# The Future of Education, Gender and Work Thoughts on the Way Forward (cont.)



Figure 16: Employment distribution of Africa's tertiary-educated workforce by degree and industry, overall															
Field of Study	All Industries	Aviation, Transport and Automotive	Architecture and Engineering	Financial Services and Insurance	Government, Education, Non-profit	Healthcare and Pharmaceutical	Manufacturing	Media and Entertainment	Oil and Energy	Professional Services	Retail and Consumer Products	Staffing	Technology, Hardware	Technology, Software	Telecommunications
Business, administration and law	35	37	18	68	31	15	30	21	25	45	39	45	11	14	30
Engineering, manufacturing and construction	16	25	58	3	5	6	31	6	44	5	11		47	8	28
Social sciences, journalism and information	13	11	5	13	22	5	8	29	7	17	13	14	4	6	10
Information and communication technologies	11	7	3	5	6		5	7	5	4	5	5	30	61	18
Natural sciences, mathematics and statistics	11	8	4	6	12	37	17	7	15	11	12	6	5	6	7
Arts and humanities	5	4	6		8	2	3	21	2	7	4	6			3
Health and welfare	4		1	1	5	26	2		1	5	3	15	1		1
Services	2			0			1	4	1	3			0	0	1
Education	2		1	1	7	2	1	2	0	1	1		1	1	1
Agriculture, forestry, fisheries and veterinary	1	1	1	0	1	2	1	1	1	1	9	0	0	0	1
Unspecified	0	1	1	0	0	1	1	1	0	0	1	1	1	0	0
All	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

# The Future of Education, Gender and Work Thoughts on the Way Forward (cont.)





### The Future of Education, Gender and Work Action by the World Economic Forum and its Constituents



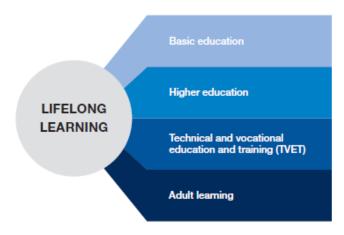
Our **Country and Regional Projects** engage business, government and civil society actors to create change on the ground through gathering commitments, applying and gathering knowledge and insights, encouraging policy reform and engaging in advocacy.

#### The Closing the Skills Gap Initiatives aim to:

- Increase the number of people skilled for employment
- Increase the number of people being upskilled or reskilled for the future of work
- Strengthen future-oriented education and training systems
- Focus on MENA, Africa and Europe at present, with an expansion in the US driven by the IT Industry in scoping at present

#### **Partner commitments:**

- Commit to skill, upskill or reskill their company's current or future workforce in Africa, Europe, MENA, or the USA to meet collective target of 1 million by 2018 and 5 million by 2020.
- Support the development of an online platform to host the initiatives of multiple organizations both within and outside of the current geographies.



Source: World Economic Forum.

