To limit the potential impact of randomisation inherent in survey data, two techniques were employed: capping the maximum impact of a particular trend-job combination and removing attributions with an insufficient number of respondents. Specifically, the total impact of a single trend on a job was capped at the 99th percentile of all trend-job combinations, 1.61 million for job increase, and 1st percentile, minus 872 thousand for job loss, and attribution pairs with fewer than three votes were excluded, with their impact categorized as unexplained.

TABLE A2

Skill taxonomy

Skills were selected from levels 3 and 4 of the Global Skills Taxonomy to represent skills of interest to organizations across sectors and economies.

Skill family (level 1)	Skill cluster (level 2)	Skill
Attitudes	**Ethics**	Environmental stewardship
		Global citizenship
	Self-efficacy	Curiosity and lifelong learning
		Dependability and attention to detail
		Motivation and self-awareness
		Resilience, flexibility and agility
	Working with others	Empathy and active listening
		Leadership and social influence
		Teaching and mentoring
Skills, knowledge and abilities	**Cognitive skills**	Analytical thinking
		Creative thinking
		Multi-lingualism
		Reading, writing and mathematics
		Systems thinking
	Engagement skills	Marketing and media
		Service orientation and customer service
	Management skills	Quality control
		Resource management and operations
		Talent management
	Physical abilities	Manual dexterity, endurance and precision
		Sensory-processing abilities
	Technology skills	AI and big data
		Design and user experience
		Networks and cybersecurity
		Programming
		Technological literacy

TABLE A3 **Job taxonomy**

The occupational taxonomy was modified and extended from O*NET SOC.

Job family	Occupation
Achitecture and Engineering	Architects and Surveyors
	Biochemical and Biomedical Engineers
	Chemical Engineers
	Civil Engineers
	Drafters, Engineering Technicians, and Mapping Technicians
	Electrotechnology Engineers
	Energy Engineers
	Environmental Engineers
	Industrial and Production Engineers
	Materials Engineers
	Mechanical Engineers
	Mining Engineers, Metallurgists and Related Professionals
	Nuclear Engineers
	Renewable Energy Engineers
	Robotics Engineers
Arts, Design, Entertainment, Sports and Media	Advertising and Public Relations Professionals
	Broadcasting Technicians
	Commercial and Industrial Designers
	Entertainers and Performers, Sports and Related Workers
	Fashion Designers
	Graphic Designers
	Handicraft Workers
	Interior Designers
	Media and Communication Workers
	Photographers
	Video Game Designers
	Writers and Authors
Business and Financial Operations	Accountants and Auditors
	Business Intelligence Analysts
	Claims Adjusters, Examiners, and Investigators
	Compliance Officers
	Credit and Loans Officers
	Digital Marketing and Strategy Specialists
	Digital Transformation Specialists

TABLE A3 **Job taxonomy**

The occupational taxonomy was modified and extended from O*NET SOC.

Job family	Occupation
Business and Financial Operations	E-commerce Specialists
	Financial Analysts
	Financial and Investment Advisers
	Human Resources Specialists
	Insurance Underwriters, Valuers, and Loss Assessors
	Investment Fund Managers
	Management and Organisation Analysts
	Recruiters and Technical Recruiters
	Regulatory and Government Associate Professionals
	Risk Management Specialists
	Sales and Marketing Professionals
	Social Media Strategist
	Training and Development Specialists
Community, Social Service and Protective Services	Firefighting and Prevention Workers
	Law Enforcement Workers, including Police Officers and Immigration Inspectors
	Religious Professionals
	Security Guards
	Social Work and Counselling Professionals
Computer and Mathematical	AI and Machine Learning Specialists
	Big Data Specialists
	Blockchain Developers
	Data Analysts and Scientists
	Data Engineers
	Data Warehousing Specialists
	Database and Network Professionals
	Database Architects
	Devops Engineers
	FinTech Engineers
	Full Stack Engineers
	ICT Operations and User Support Technicians
	Information Security Analysts
	Internet of Things Specialists
	Mathematicians, Actuaries and Statisticians
	Online Learning Managers

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O*NET SOC.

Job family	Occupation
Computer and Mathematical	Process Automation Specialists
	Security Management Specialists
	Software and Applications Developers
	Software Testers
	System Engineers
	UI and UX Designers
	Web Developers
Construction and Extraction	Building Framers, Finishers, and Related Trades Workers
	Construction Laborers
	Electrical Equipment Installers and Repairers
	Mining, Petroleum and Other Extraction Workers
Education and Training	Primary School and Early Childhood Teachers
	Secondary Education Teachers
	Special Education Teachers
	University and Higher Education Teachers
	Vocational Education Teachers
Farming, Fishing, and Forestry	Farmworkers, Labourers, and Other Agricultural Workers
	Fishing and Hunting Workers
	Forestry Workers
	Gardeners, Horticultural and Nursery Workers
Healthcare Practitioners and Technicians	Audiologists and Speech Therapists
	Dentists and Associated Professions
	Dietitians and Nutritionists
	Environmental and Occupational Health and Hygiene Professionals
	Epidemiologists and Public Health Specialists
	Generalist Medical Practitioners
	Health Technologists and Technicians
	Midwifery Professionals
	Nursing Professionals
	Optometrists and Opticians
	Paramedical and Emergency Medical Technicians
	Personal Care Workers in Health Services
	Pharmacists and Associated Professions
	Physical Therapists

TABLE A3 **Job taxonomy**

The occupational taxonomy was modified and extended from O*NET SOC.

Job family	Occupation
Healthcare Practitioners and Technicians	Psychologists and Psychiatrists
	Specialist Medical Practitioners
	Traditional and Complementary Medicine Professionals
	Veterinarians
Hospitality and Food Related	Baristas
	Chefs and Cooks
	Concierges and Hotel Desk Clerks
	Event Managers
	Food and Beverage Serving Workers
	Food Service Counter Attendants
	Hotel and Restaurant Managers
Legal	Arbitrators, Mediators, and Conciliators
	Court Reporters
	Judges
	Judicial Law Clerks
	Lawyers
	Legal Secretaries
	Paralegals and Legal Assistants
	Title Examiners, Abstractors, and Searchers
Management	Business Services and Administration Managers
	General and Operations Managers
	Health and Education Services Managers
	Legislators and Officials
	Managing Directors and Chief Executives
	Manufacturing, Mining, Construction, and Distribution Managers
	Organisational Development Specialists
	Product Managers
	Production Managers in Agriculture, Forestry and Fisheries
	Project Managers
	Relationship Managers
	Strategic Advisors
Manufacturing and Production	Assembly and Factory Workers
	Chemical Processing Plant Operators
	Food Processing and Related Trades Workers

TABLE A3 **Job taxonomy**

The occupational taxonomy was modified and extended from O*NET SOC.

Job family	Occupation
Manufacturing and Production	Garment and Related Trades Workers
	Petroleum and Natural Gas Refining Plant Operators
	Power Production Plant Operators
	Printing and Related Trades Workers
	Renewable Energy Technicians
	Sheet and Structural Metal Workers, Moulders and Welders
	Solar Energy Installation and System Engineers
Natural Science and Sustainability	Chemists and Chemical Laboratory Scientists
	Environmental Protection Professionals
	Food Scientists and Technologists
	Life Scientists
	Physical Scientists
	Sustainability Specialists
Office and Administrative	Accounting, Bookkeeping and Payroll Clerks
	Administrative Assistants and Executive Secretaries
	Bank Tellers and Related Clerks
	Client Information and Customer Service Workers
	Data Entry Clerks
	Material-Recording and Stock-Keeping Clerks
	Postal Service Clerks
	Statistical, Finance and Insurance Clerks
Personal Care, Maintenance and Installation	Building Caretakers, Cleaners and Housekeepers
	Childcare Workers
	Electronics and Telecommunications Installers and Repairers
	Hairdressers, Beauticians and Related Workers
	Home Appliance Installers and Repairers
	Mechanics and Machinery Repairers
	Personal Care Aides
	Sports and Fitness Workers
Sales	Business Development Professionals
	Cashiers and Ticket Clerks
	Door-To-Door Sales Workers, News and Street Vendors, and Related Workers
	Real Estate Sales Agents

TABLE A3 **Job taxonomy**

The occupational taxonomy was modified and extended from O*NET SOC.

Job family	Occupation
Sales	Sales and Purchasing Agents and Brokers
	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
	Securities and Finance Dealers and Brokers
	Shop Salespersons
	Telemarketers
Social Science	Economists
	Social Science Research Assistants
	Social Scientists and Related Workers
	Survey Researchers
Transportation and Logistics	Autonomous and Electric Vehicle Specialists
	Car, Van and Motorcycle Drivers
	Commercial Pilots
	Flight Attendants
	Heavy Truck and Bus Drivers
	Light Truck or Delivery Services Drivers
	Locomotive Engine Drivers and Related Workers
	Postal Service Mail Carriers
	Refuse Workers
	Supply Chain and Logistics Specialists
	Transportation Attendants and Conductors
	Transportation Inspectors
	Water Transportation Workers, including Ship and Marine Cargo Workers, Controllers, and Technicians

User Guide

Economy, Region, and Industry Profiles

Economy, Region, and Industry Profiles present data findings from the Future of Jobs Survey through these respective lenses, with the aim of providing specific practical information to decision-makers and experts in academia, business, government and civil society. Complementing the cross-industry and cross-economy analysis of results in the Future of Jobs Report, this section provides deeper granularity for given industries, regions and economies through dedicated profiles. Additionally, the profiles are intended to enable interested companies and policy-makers with the opportunity to benchmark their organization or economy against the range of expectations prevalent in their industry or region. This User's Guide provides an overview of the information contained in the various profiles and their appropriate interpretation.

1. Hard data contextual indicators:

This section aims to provide the reader with the latest available data from contextual indicators on an economy's labour market.

Working age population

The total working age population is displayed in the top right corner of the page for the economy profile. The working-age population is the number of people aged 25 and over. In addition to using a minimum age threshold, certain countries also apply a maximum age limit.

Period: 2020 or latest available data (accessed November 2024)
Source: ILOSTAT, International Labour Organization

Labour force participation

The labour force participation rate is the labour force as a percentage of the working-age population of people aged 25 and over. The labour force is the sum of all persons of working age who are employed and those who are unemployed.

Period: 2020 or latest available data (accessed November 2024)
Source: ILOSTAT, International Labour Organization

Share of youth not in employment, education, or training, ILO modelled estimates (NEET)

This indicator refers to the proportion of youth who are not in employment and not in education or training. Youth not in education are those who were neither enrolled in school nor in a formal training program (e.g. vocational training).

Period: 2019 or latest available data (accessed November 2024)
Source: ILOSTAT, International Labour Organization

Unemployment rate

The unemployment rate conveys the number of persons who are unemployed as a percentage of the labour force (i.e., the employed plus the unemployed).

Period: 2020 or latest available data (accessed November 2024)
Source: ILOSTAT, International Labour Organization

Unemployment rate among workers with basic and advanced education

The unemployment rate conveys the number of persons who are unemployed as a percentage of the labour force (i.e., the employed plus the unemployed). Data disaggregated by level of education are provided on the highest level of education completed, classified according to the International Standard Classification of Education (ISCED).

Period: 2023 (accessed November 2024)
Source: ILOSTAT, International Labour Organization

Vulnerable employment, total (% of total employment), ILO modelled estimates

Vulnerable employment is contributing family workers and own-account workers as a percentage of total employment.

Period: 2022 (accessed November 2024)
Source: World Bank, World Development Indicators database. Estimates are based on data obtained from International Labour Organization, ILOSTAT

Secondary education attainment

The percentage of population aged 25 and over that attained or completed upper secondary education.

Period: 2019 or latest available data (accessed November 2024)
Source: World Bank, World Development Indicators

database. UNESCO Institute for Statistics (UIS).

Tertiary education attainment

The percentage of population aged 25 and over that attained or completed tertiary education.

Period: 2020 or latest available data (accessed November 2024)
Source: World Bank, World Development Indicators database. UNESCO Institute for Statistics (UIS)

Ease of finding skilled employees in local labour market

Score computed based on the average response of companies operating in this country to the Executive Opinion Survey question "In your country, to what extent can companies find people with the skills required to fill their vacancies in the local labour market?" [1 = Not at all; 7 = To a great extent].

Period: 2023-2024 weighted average
Source: World Economic Forum, Executive Opinion Survey

Fill vacancies by hiring foreign labour

Score computed based on the average response of companies operating in this country to the Executive Opinion Survey question "In your country, to what extent can companies find people with the skills required to fill their vacancies by hiring foreign labour?" [1 = Not at all; 7 = To a great extent].

Period: 2023-2024 weighted average
Source: World Economic Forum, Executive Opinion Survey

Country investment in mid-career training

Score computed based on the average response of companies operating in this country to the Executive Opinion Survey question "In your country, to what extent does government invest in mid-career reskilling and upskilling opportunities?" [1 = Not at all; 7 = To a great extent].

Period: 2023-2024 weighted average
Source: World Economic Forum, Executive Opinion Survey

2. Labour-market churn

This figure is the five-year structural labour-market churn of surveyed employers that operate in the respective economy, region or industry, compared with the global average. Labour-market churn refers to the pace of reallocation of workers and jobs. The Future of Jobs Survey provides insight into structural labour-market churn, namely, the number of expected new jobs, plus the number of roles expected to be displaced during the period, divided by the size of the labour force in question. Structural churn disregards the 'natural' churn of workers moving between jobs for business or personal reasons. For more information, please refer to Appendix A.

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

3. Disruption to skills

This figure shows the average of estimates of surveyed employers that operate in the respective economy, region or industry, compared with the global average, for the question "what proportion of the core skills required by your workforce will remain the same?", compared to the global average.

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

4. Organizations with DEI priorities

This figure shows the share of surveyed employers with diversity, equity and inclusion priorities that operate in the respective economy, region or industry, compared with the global average. The figure is calculated based on the share of respondents who select "My organization doesn't have DEI priorities" for the question "What are likely to be the key components your workforce diversity, equity and inclusion (DEI) priorities by 2030?".

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

5. Exposure to AI disruption

This figure shows the share of surveyed employers with high exposure to AI that operate in the respective economy, region or industry, compared to the global average. The figure is calculated based on the share of respondents who do not select "My organization has low exposure to AI" for the question "Which strategies is your organization likely to implement by 2030, in response AI's increasing capability and prevalence?".

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

6. Macrotrends driving business transformation

This bar chart shows the share of employers surveyed that identify the macrotrends as likely to drive transformation in the respective economy, region or industry, compared to the global average. It is based on the response to the question "By 2030, which of the following trends are likely to drive transformation in your organization?".

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

7. Technology trends driving business transformation

This bar chart shows the share of employers surveyed that identify the corresponding technology trends as likely to drive transformation in the respective economy, region or industry, compared to the global average. It is based on the response to the question "By 2030, which of the following trends are likely to drive transformation in your organization?".

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

8. Key roles for business transformation

This table provides an overview of the top roles for industry transformation from 2025 until 2030. The list cites the most frequently selected roles of surveyed employers that operate in the respective economy, region or industry. Net growth represents the forecast increase or decrease in the size of a workforce. Churn represents the sum of job losses and created jobs in a workforce as a fraction of its initial size.

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

9. Core skills in 2025 and skills on the rise by 2030

This bar chart and table shows the top core skills in 2025 and skills with the most increase in use by 2030 in the respective economy, region or industry. The data is based on the question "Currently, what are the core skills workers need to perform well in the key roles of your organisation?" and "For your organisation's key roles, would you expect an increase or decrease in the use of the following skills by 2030?", compared to the global average.

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

10. Upskilling and reskilling outlook

The data shows the breakdown of the typical training outlook for a representative group of 100 workers, calculated based on averages of the training strategies reported by employers surveyed in the respective economy, region and industry, compared to the global average.

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

11. Shifting human-machine frontier

The bar chart shows share of total work tasks expected to be delivered predominantly by human workers, by technology (machines and algorithms), or by a combination of both, in the respective economy, region or industry, based on the question "What proportion of time spent, on average across all tasks in your organization, is currently performed predominantly by technology (machines, algorithms etc.), predominantly by humans, or by a combination of the two?", compared to the global average.

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

12. Public policies to increase talent availability

This table shows top public policies, ranked by the share of employers identifying the stated public policies as promising to increase talent availability in the respective economy or region, compared to global averages. This is the result of the question "Which public-policy measures are likely to significantly increase the availability of talent to your organization by 2030?".

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

13. Business practices to improve talent availability

This table shows top business practices, ranked by the share of employers identifying the stated business practices as promising to increase talent availability in the respective industry, compared to global averages. This is the result of the question "Which business practices have the greatest potential to increase the availability of talent to your organization by 2030?".

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

14. Barriers to organisational transformation

The bar chart shows top barriers ranked by the share of employers surveyed expecting that the stated barrier will hinder their organisational transformation in the respective economy, region or industry, compared to global averages. This is the result of the question "What are the major barriers to achieving your organization's goals by 2030?".

Period: 2024
Source: World Economic Forum, Future of Jobs Survey

15. Wage outlook

The bar chart shows the share of employers projecting the share of wages and other forms of workers' compensation as a percentage of the company's total revenues, based on the question "By 2030, as percentage of the company's total