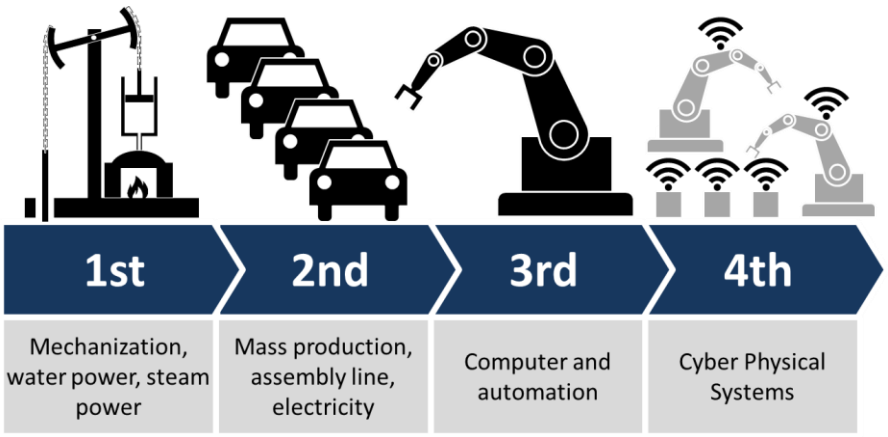
AI: ECONOMIC PROS AND CONS

A FOCUS ON THE LABOR FORCE

OREGON CITY BUSINESS ALLIANCE, MARCH 24, 2026

State of Oregon Employment Department

FOUR INDUSTRIAL REVOLUTIONS



First Industrial Revolution (1760-1840)

Marked by transition from hand production to machines powered by water and steam.

Key Technologies:

- Water and steam power
- Mechanization of production
- Textile industry
- Iron and steel production

Second Industrial Revolution (1870-1914)

Characterized the use of electricity, assembly lines, and mass production.

Key Technologies:

- Electricity
- Assembly line
- Mass production
- Internal combustion engine
- Chemical industry
- Electrical appliances

Third Industrial Revolution (1950-1970)

Marked by the introduction of computers, automation, and robotics.

Key Technologies:

- Computers
- Automation
- Robotics
- Information technology
- Telecommunications
- Electronics

Fourth Industrial Revolution (2000-present)

Characterized by convergence of digital, physical, and biological technologies.

Key Technologies:

- Internet of things (IoT)
- Artificial intelligence (AI)
- Cloud computing
- Big data
- 3D printing
- Robotics
- Nanotechnology

SCENARIO OF THE FUTURE FIFTH INDUSTRIAL REVOLUTION

Future Fifth Industrial Revolution

Emphasizes human-machine collaboration, sustainability, and societal wellbeing, building on the technological foundations of industry 4.0.

Key Features:

- Human-machine collaboration
- Sustainability and environmental responsibility
- Ethical and social considerations
- Builds on Industry 4.0 technologies such as AI, IoT, big data analytics, robotics and smart systems, but applies them in ways that prioritize human welfare and societal value.

Source: Rutgers University+1

HOW AMERICAN'S VIEW AI AND ITS IMPACT ON SOCIETY

- Half of U.S. adults say the increased use of AI in daily life made them feel more concerned in 2025 compared to 37% in 2021.
- More than half of teens (13-17 years) said they use AI chatbots for finding information and doing homework in 2025.
- A growing share of U.S. workers said that at least some of their work is done with AI — from 16% in 2024 to 21% in 2025.
- Most Americans (75%) said they never got news from AI chatbots like ChatGPT or Gemini in 2025.
- Adult Americans were divided on how much they trusted the U.S. to regulate artificial intelligence with 47% of survey respondents saying (Not too much/None at all) and 44% saying (A lot or some).

Source: Key findings about how Americans view artificial intelligence, Pew Research Center

AI'S MINIMAL LABOR MARKET IMPACTS

Top 15 occupations with highest adaptive capacity among high AI exposure

Occupation	Total U.S. Employment	AI Exposure	Adaptive Capacity
Web and digital interface designers	111K	68%	100%
Marketing managers	385K	60%	100%
Producers and directors	145K	52%	100%
Financial and investment analysts	341K	50%	99%
Computer and information systems managers	646K	56%	99%
Computer network architects	177K	56%	99%
Other mathematical science occupations	270K	66%	99%
Web developers	79K	64%	97%
Other life scientists	175K	55%	97%
Other financial specialists	184K	58%	97%
Information security analysts	179K	54%	97%
Software quality assurance analysts and testers	200K	60%	97%
Computer and information research scientists	38K	50%	97%
Chemists and materials scientists	92K	46%	96%
Public relations and fundraising managers	113K	54%	96%

Source:National Bureau of Economic Research (NBER)

Significant uncertainty surrounds the question of how AI will impact labor markets, and occupation-level measures alone cannot tell the whole story.

POTENTIAL AI DRIVEN JOB LOSS OCCUPATIONS

Top 15 occupations with lowest adaptive capacity among those with high AI exposure

Occupation	Total U.S. Employment	AI Exposure	Adaptive Capacity
Door-to-door sales workers, news and street vendors, and related workers	5K	50%	3%
Court, municipal, and license clerks	170K	58%	11%
Secretaries and administrative assistants, except legal, medical, and executive	1.7M	59%	14%
Payroll and timekeeping clerks	157K	50%	15%
Property appraisers and assessors	59K	50%	15%
Tax examiners and collectors, and revenue agents	54K	62%	18%
Eligibility interviewers, government programs	156K	59%	18%
Office clerks, general	2.5M	50%	22%
Medical secretaries and administrative assistants	831K	63%	23%
Insurance sales agents	469K	53%	24%
Interpreters and translators	53K	82%	29%
Receptionists and information clerks	965K	58%	30%
Insurance claims and policy processing clerks	229K	54%	30%
Tax preparers	74K	63%	30%
Legal secretaries and administrative assistants	155K	75%	37%

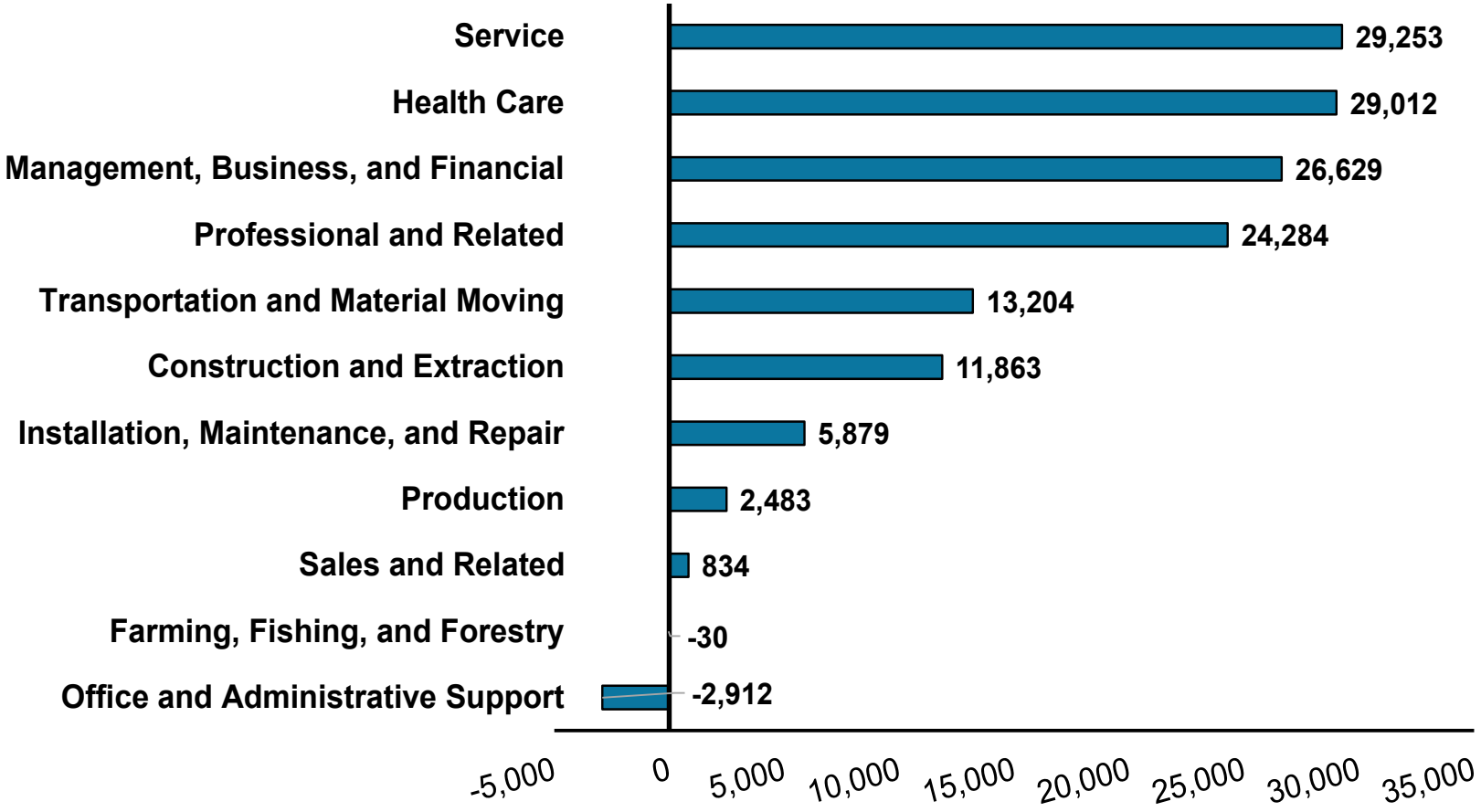
Source: National Bureau of Economic Research (NBER)

Factors known to influence worker vulnerability to harms from job displacement:

- Liquid financial savings
- Age
- Geographic density
- Skill transferability

OREGON OCCUPATIONAL PROJECTIONS: 2024-2034

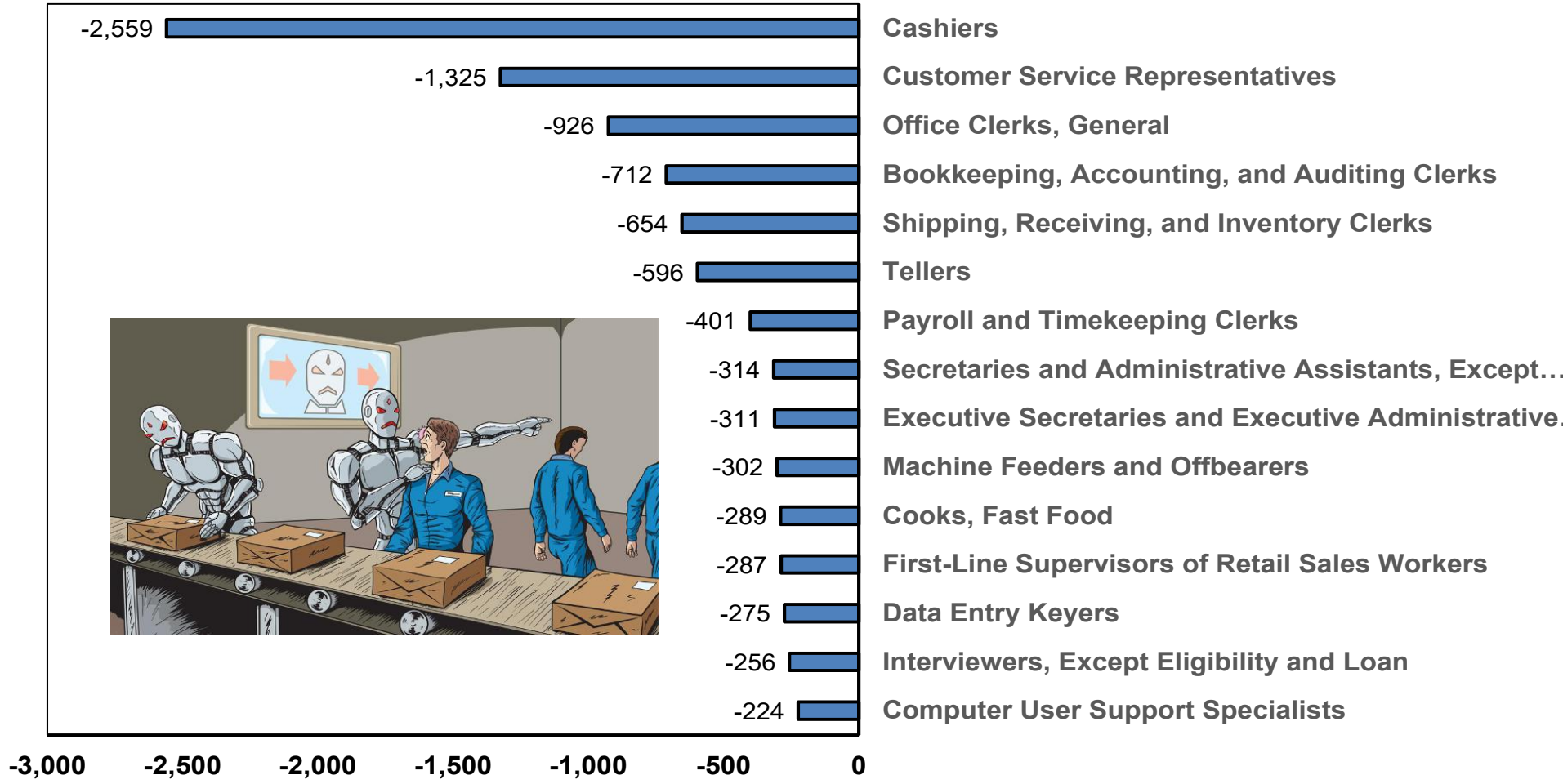
New Job Openings by Occupational Group in Oregon, Occupational Projections: 2024-2034



Source: Oregon Employment Department, Occupational Projections 2024-2034

17% OF OCCUPATIONS WITH NEGATIVE EMPLOYMENT GROWTH

Oregon Occupational Employment Projections: 2024-2034
Top 15 Occupations with Highest Projected Job Loss



Source: Oregon Employment Department, Occupational Projections: 2024-2034

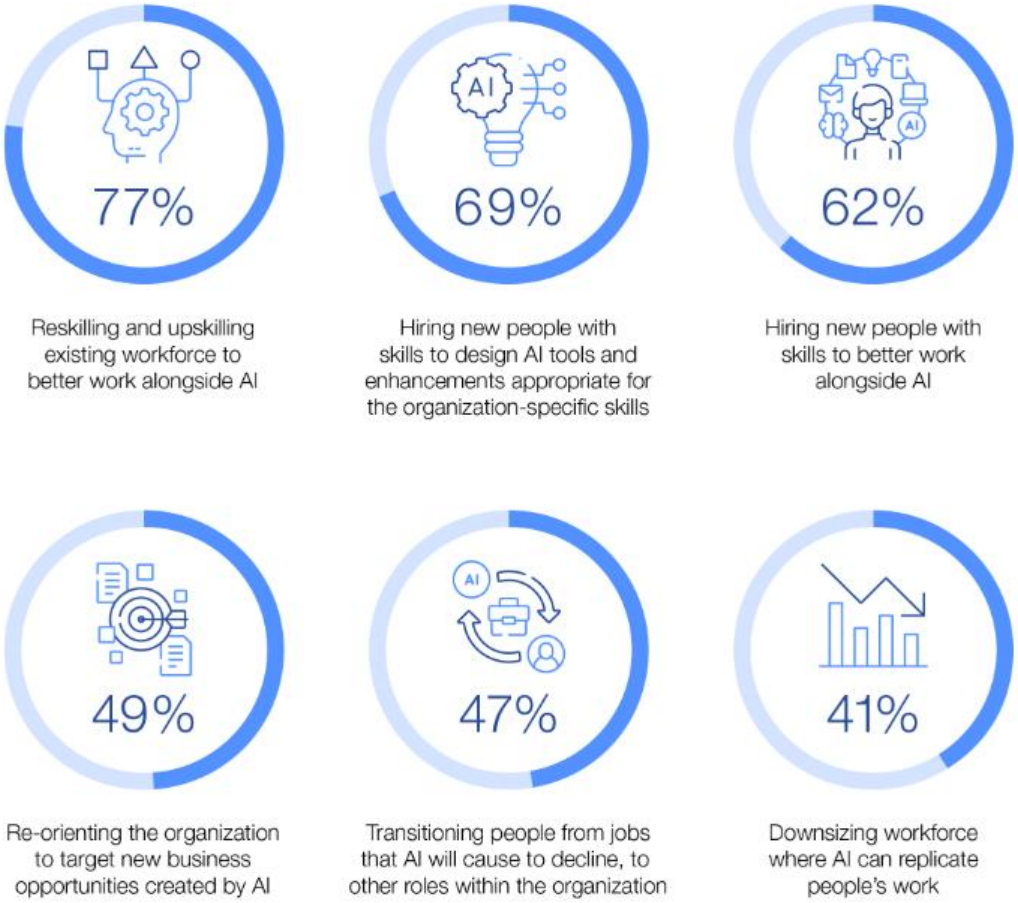
BUSINESS RESPONSES

1) **Reskilling and upskilling existing workforce (77%)**
2) **Hiring new workers to design AI tools (69%)**
3) **Hiring new workers to work alongside AI (62%)**
4) **Target new business opportunities created by AI (49%)**
5) **Transitioning workers to new jobs within the organization that AI displaced (47%)**
6) **Downsizing workforce caused by AI displacement (41%)**

Future of Jobs Report 2025

How will businesses respond to AI developments?

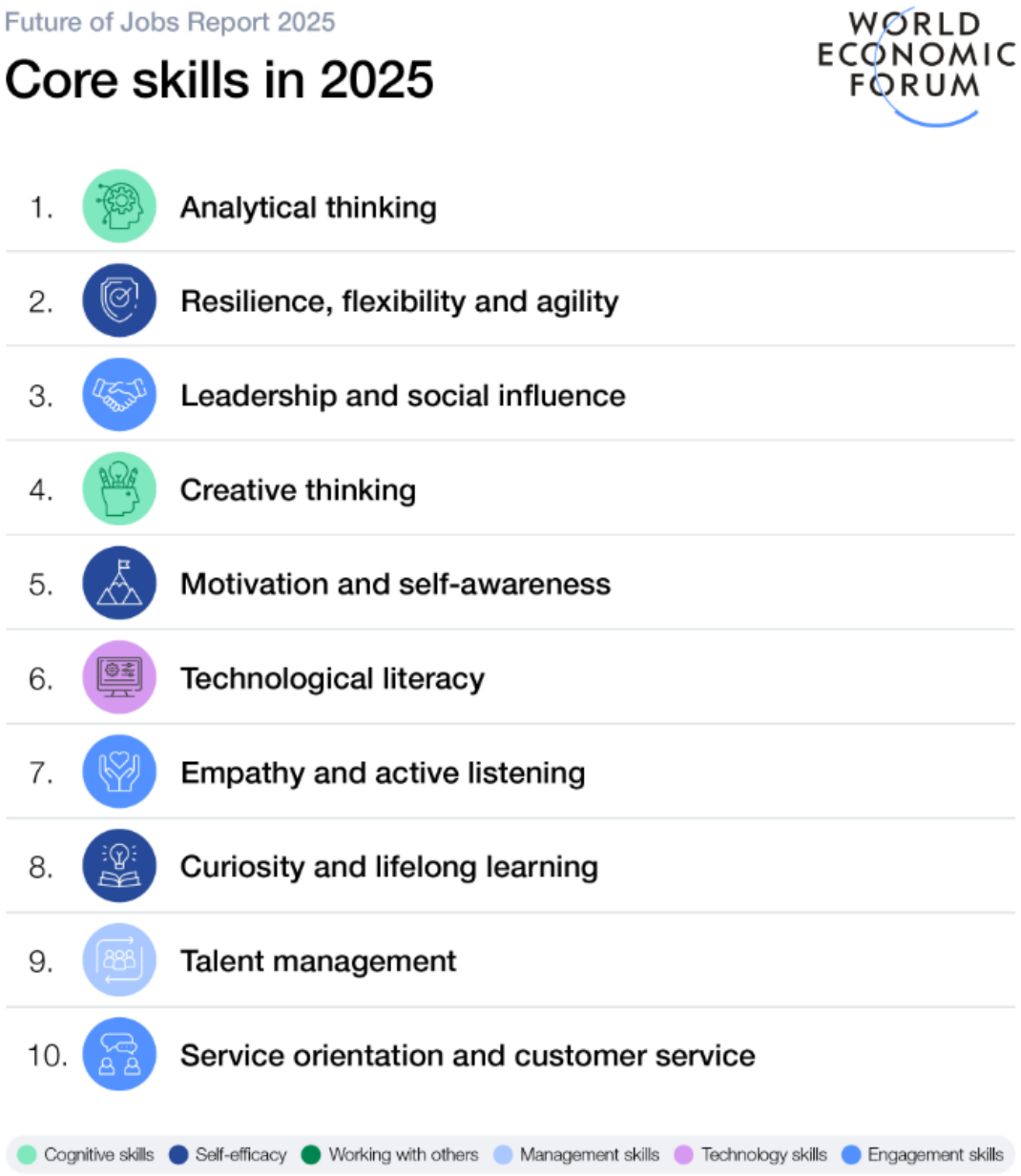
WORLD ECONOMIC FORUM



Source: World Economic Forum. (2025). *Future of Jobs Report 2025.*

CURRENT JOB SKILLS

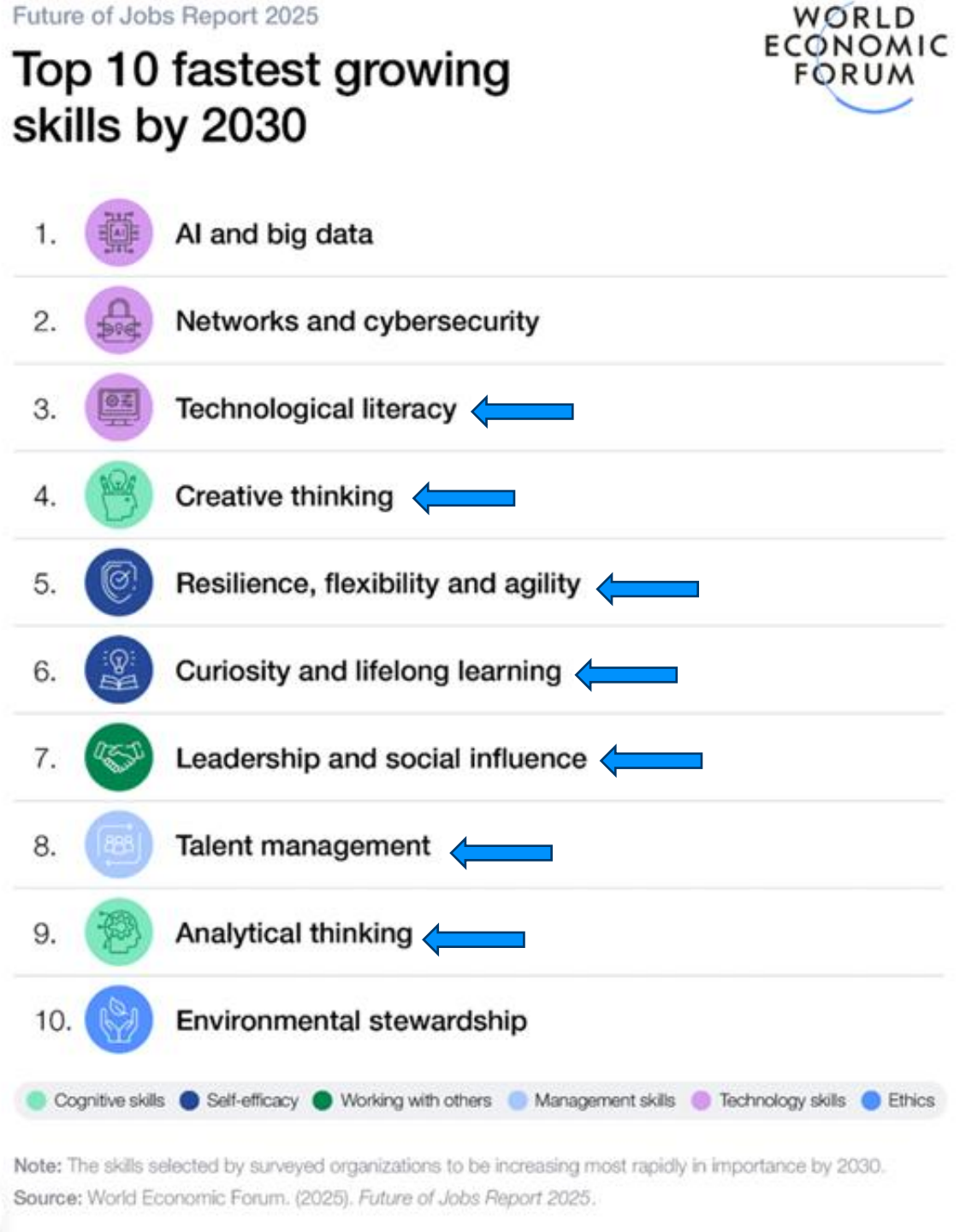
These job skills were selected by organizations at the World Economic Forum in 2025 that were of greatest importance to workers.



NEW JOB SKILLS FOR THE FUTURE

Businesses added three new top skills by 2030:

1. AI and big data
2. Networks and cybersecurity
3. Environmental stewardship



Thank You!

LYNN WALLIS, ECONOMIST

LYNN.N.WALLIS@EMPLOY.OREGON.GOV

SIGN UP FOR THE LATEST WORKFORCE AND ECONOMIC RESEARCH WWW.QUALITYINFO.ORG/SUBSCRIBE