

Skills requirements for future jobs

10 facts

Lee Rainie

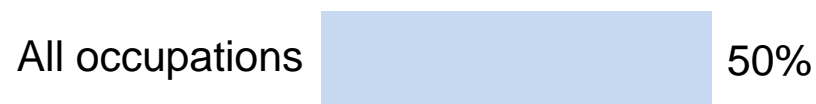
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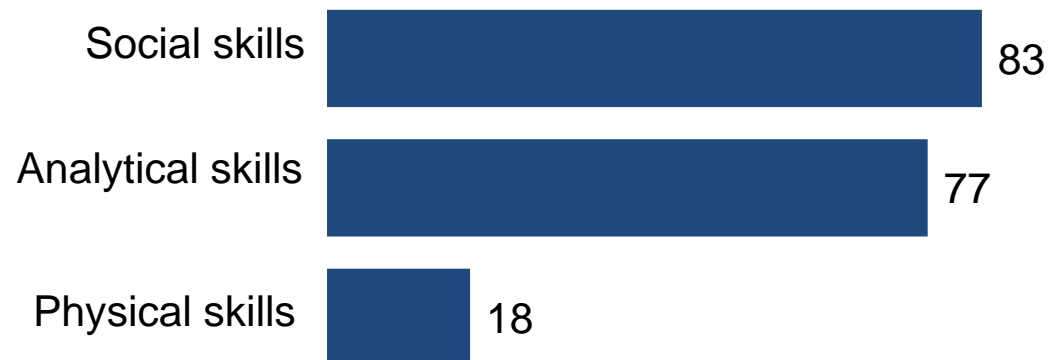
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1) The nature of jobs is changing as the knowledge economy rises

% change in employment, 1980-2015

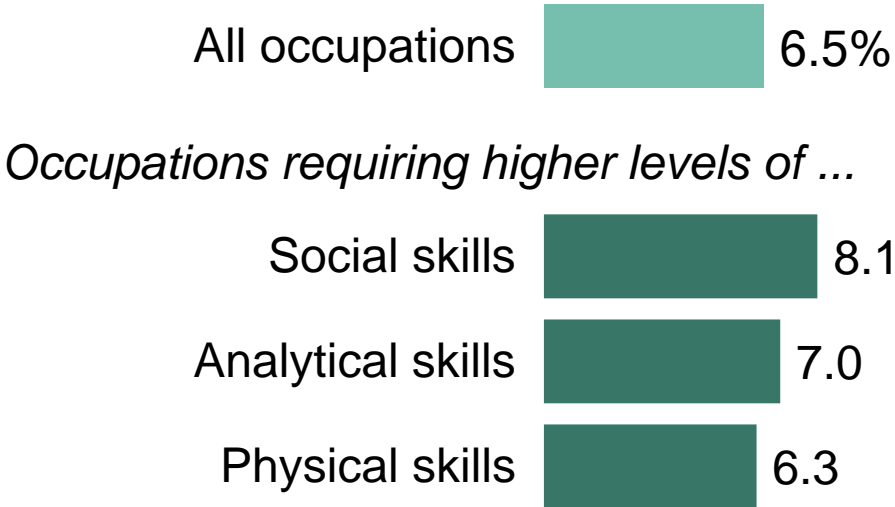


Occupations requiring higher levels of ...



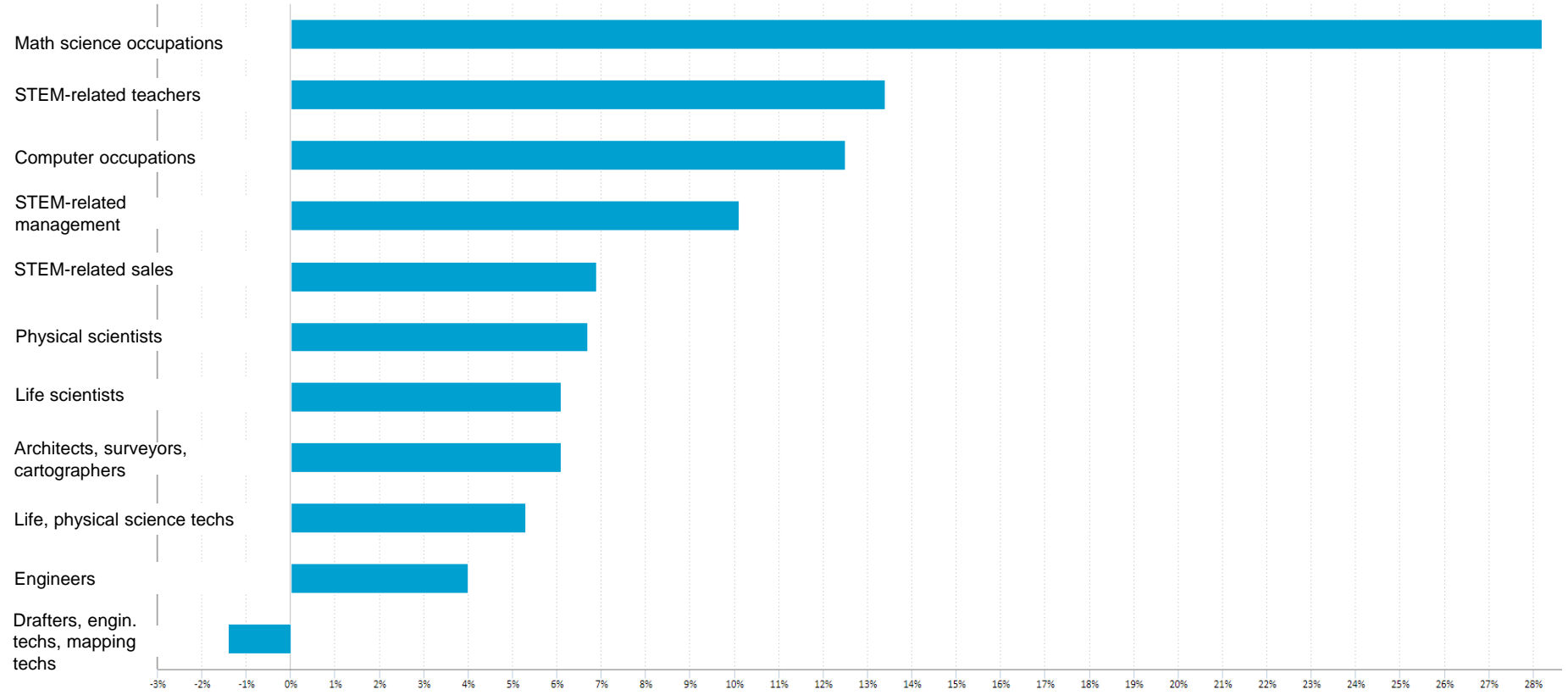
Employment growth projected to be greater in occupations with higher social or analytical skills

% change in employment, 2014-2024

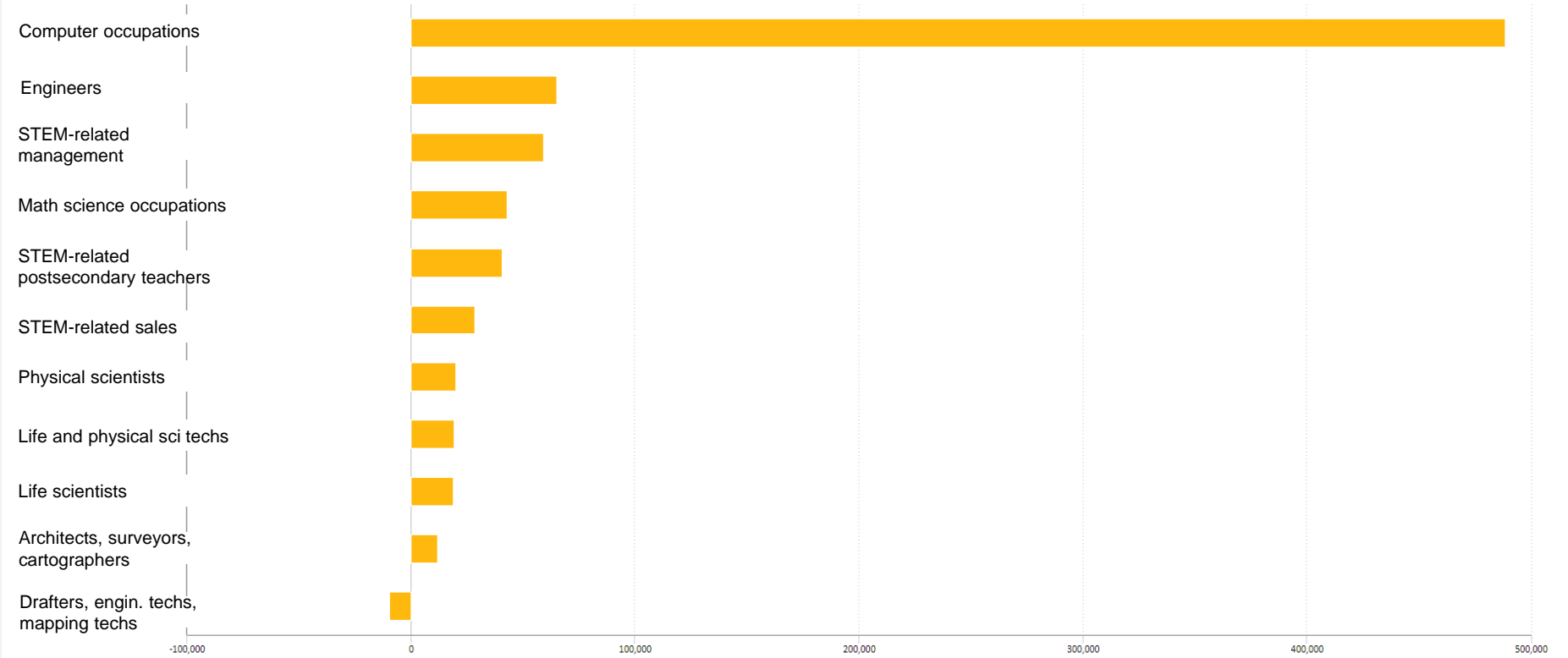


Projected growth rates for types of STEM occupations, 2014-2024 – U.S. Bureau of Labor Statistics

Projected growth rates for types of STEM occupations, 2014 to 2024



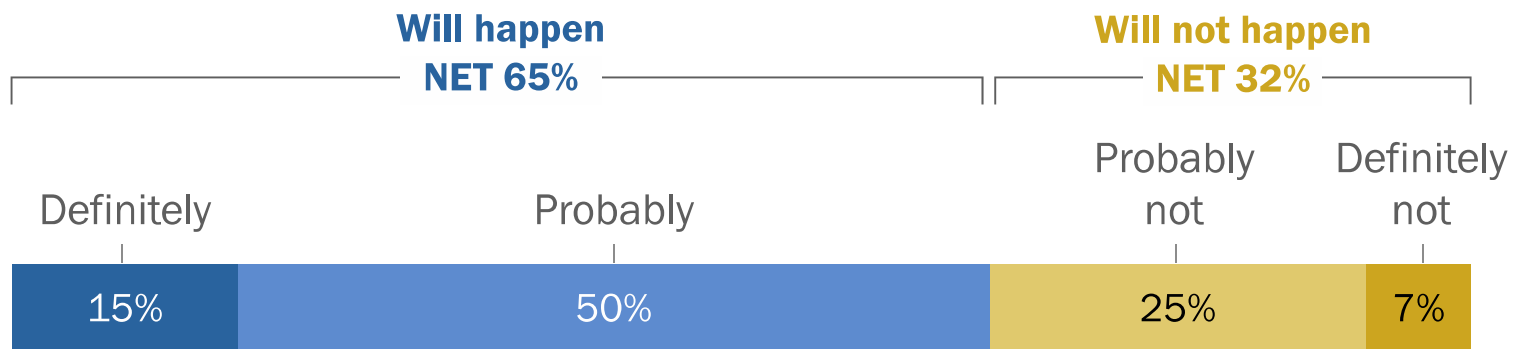
Projected new jobs for types of STEM occupations, 2014-2024 – U.S. Bureau of Labor Statistics



Click legend items to change data display. Hover over chart to view data.
Source: U.S. Bureau of Labor Statistics.

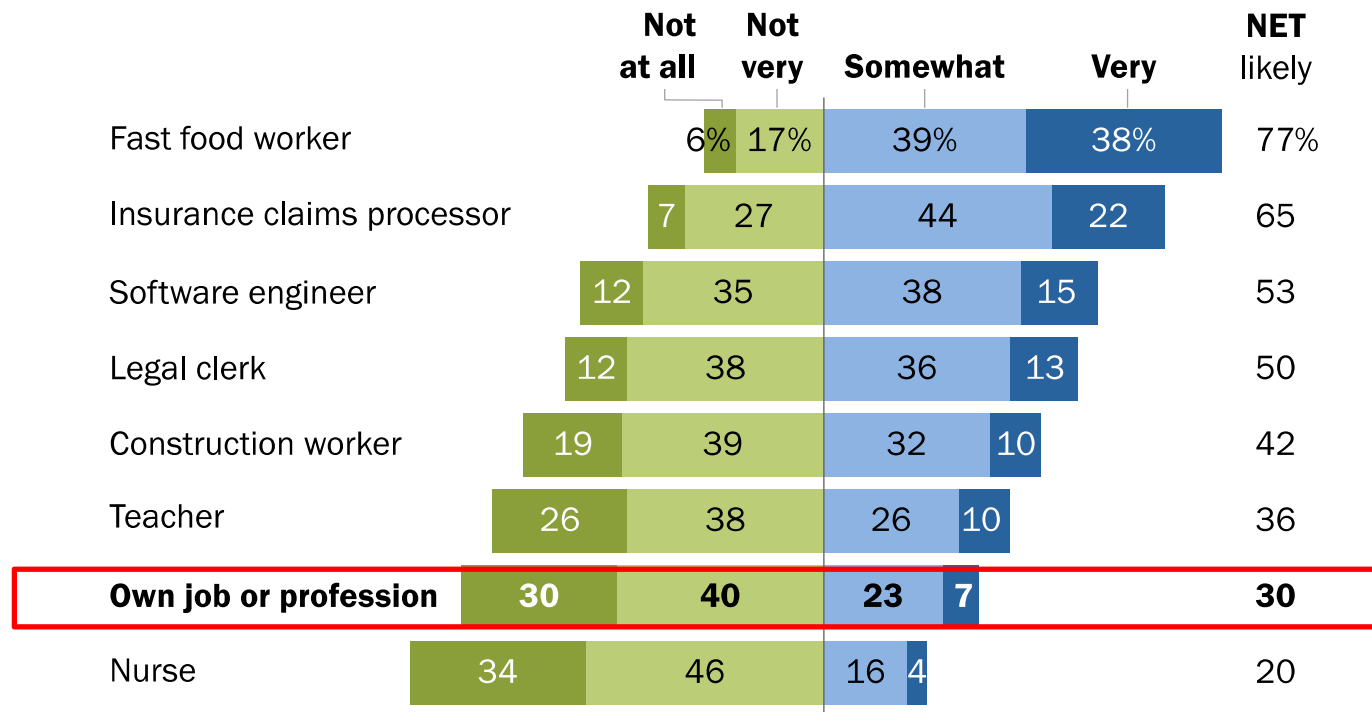
2) Two-thirds of Americans expect that robots and computers will do much of the work currently done by humans within 50 years

% of adults who say that in the next 50 years robots and computers will do much of the work currently done by humans



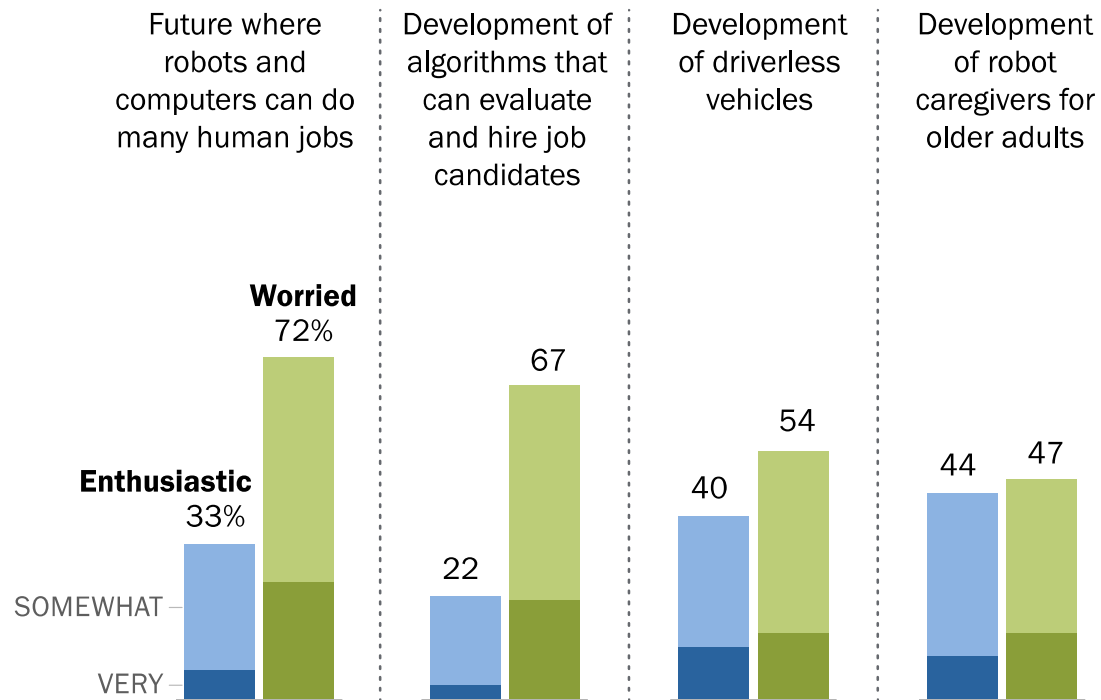
3) People think many professions are at risk – but not their own jobs

% of U.S. adults who think it is ___ likely that the following jobs will be replaced by robots or computers in their lifetimes



4) People express more worry than optimism about future automation

% of U.S. adults who say they are enthusiastic or worried about ...



5) Automation, robots, artificial intelligence will even take over sophisticated tasks

45 years

The timeframe estimated by artificial intelligence experts when “high level machine intelligence” – unaided machines that can accomplish any given task better and more cheaply than humans – will be developed

2024: outperform language translators

2027: drive a truck

2031: work in retail

2049: write best selling book

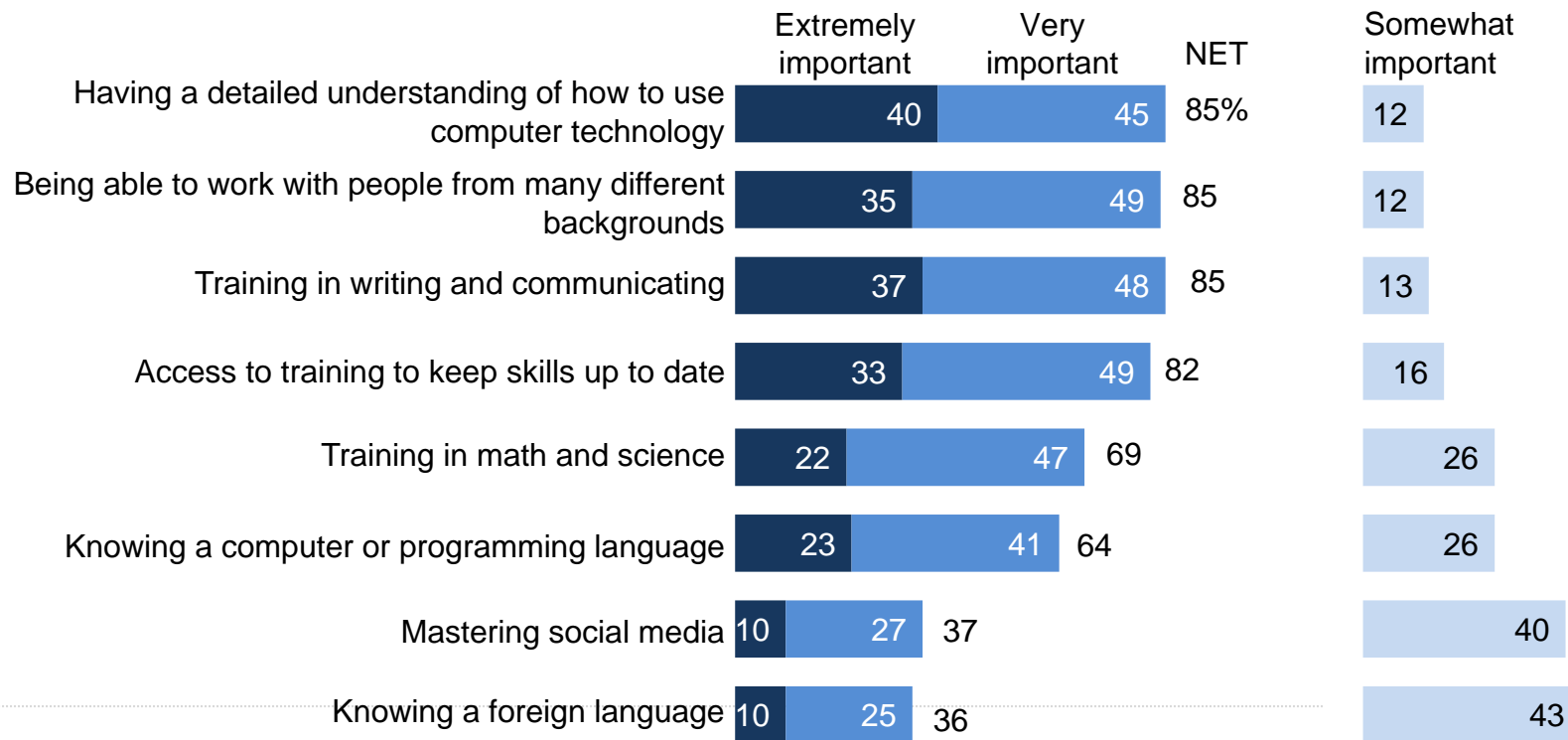
2053: work as a surgeon

6) Self-driving cars, intelligent digital agents that can act for you, and robots are advancing rapidly. Will networked, automated, artificial intelligence (AI) applications and robotic devices have displaced more jobs than they have created by 2025?



52% - more jobs created than destroyed
48% - more jobs displaced than created

7) People think knowledge of computers, social dexterity, communications skills and access to training are key to success

% saying these traits are ... for workers to be successful in today's economy



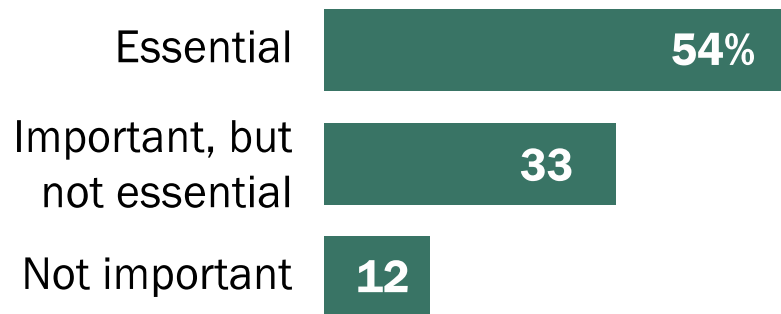
8) Accenture: Look at the 'missing middle'
 Human + Machine – Paul Daugherty, James Wilson

Lead	Empathize	Create	Judge	Train	Explain	Sustain	Amplify	Interact	Embody	Transact	Iterate	Predict	Adapt
 <p>Human-only activity</p>				Humans complement machines			AI gives humans superpowers			 <p>Machine-only activity</p>			
				Human and machine hybrid activities									

9) Training is now seen as essential

... and most workers see continuous training as essential or important to career success

% saying training/skills development throughout their work life will be ...



10) In the next 10 years, do you think we will see the emergence of new educational and training programs that can successfully train large numbers of workers in the skills they will need to perform the jobs of the future?

70% - "yes"

30% - "no"

Theme 1) The training ecosystem will evolve, with a mix of innovation in all education formats

Theme 2) **Lifelong learners** must cultivate 21st-century skills, capabilities and attributes: **Tough-to-teach intangibles such as emotional intelligence, curiosity, creativity, adaptability, resilience and critical thinking** will be most highly valued

Theme 3) New credentialing systems will arise as self-directed learning expands

Conclusions

- Human-machine relationship is changing: We will all be cyborgs
- “Stair-stepping” skills upgrades will be ubiquitous
- Data mastery will be a primary “growth” area
- Human consciousness and creativity is our best survival trait to survive our “computer overlords”
- Adapting our organizational systems of learning and work will be as important a task as adjusting our behavior

Thank you!

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