AIAA
SHAPING THE FUTURE OF AEROSPACE

2021 AIAA STATE OF THE INDUSTRY REPORT

The Health and Future Outlook of the Aerospace Industry

FULL REPORT

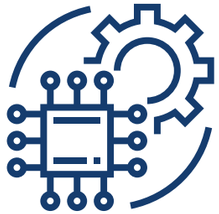
*This report summarizes the findings from a survey of approximately 1,000 people conducted by Edge Research on behalf of AIAA in April 2021. Respondents were from across the United States and 37 other countries. Respondents included AIAA members — current aerospace professionals, academics, students (master's and Ph.D.) — and nonmembers. These slides accompany the Report at **aiaa.org/stateofindustry**.*

KEY FINDINGS

The outlook on the aerospace industry is cautiously optimistic, but the mood varies widely between the United States and other countries, as well as space and aviation sectors

There are many areas of opportunity in space, AI, advanced manufacturing and autonomous flight — but space has the momentum at the moment

Cybersecurity stands out among the most significant challenges — those in the United States place it as one of the top two priorities for their organizations

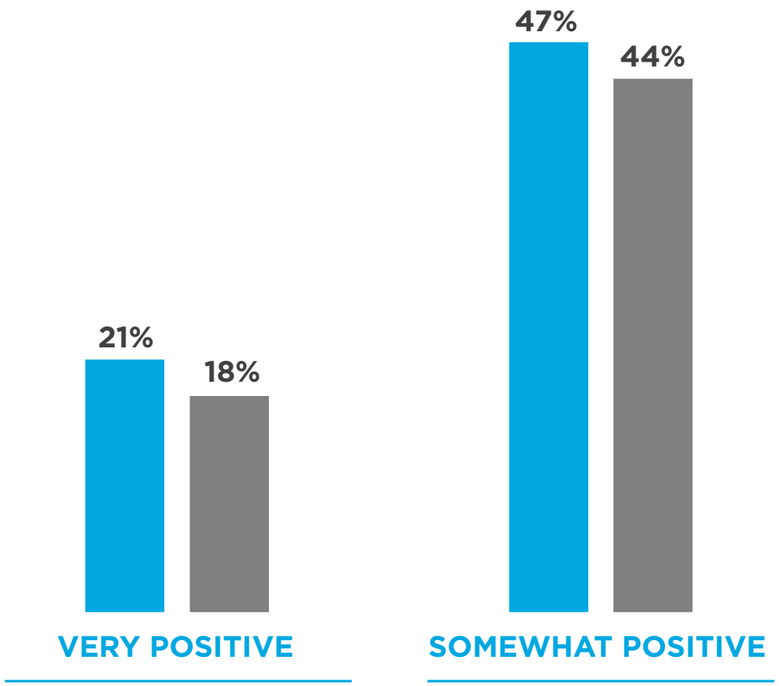


Stable funding, research investments, tech infrastructure, and an educated pipeline of U.S. workers are congressional priorities that cut across sectors

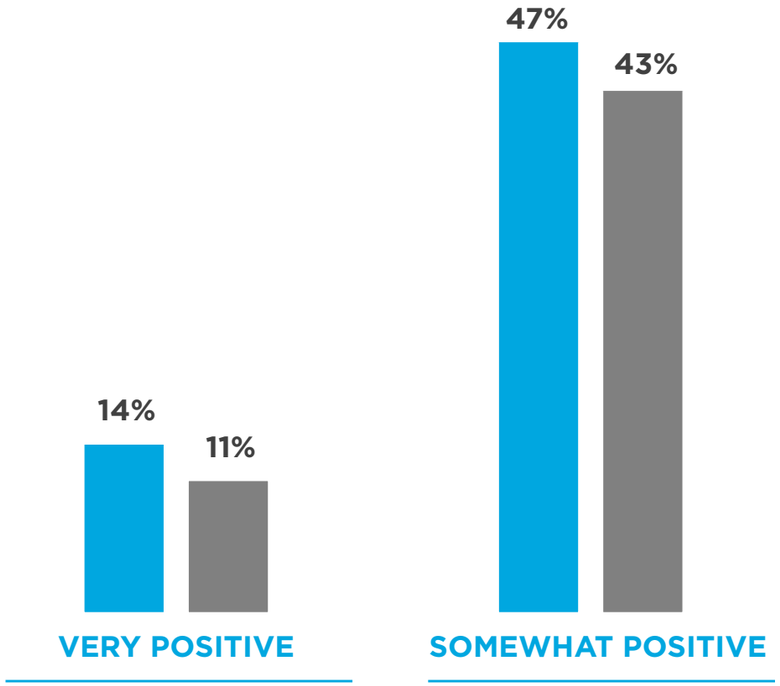
DEI is revealed as a priority and is tied to workforce development. Despite the focus, workers are not sure employers are doing the right things

The outlook on the economy is more positive than negative.

How do you feel about the future of the **United States** economy?



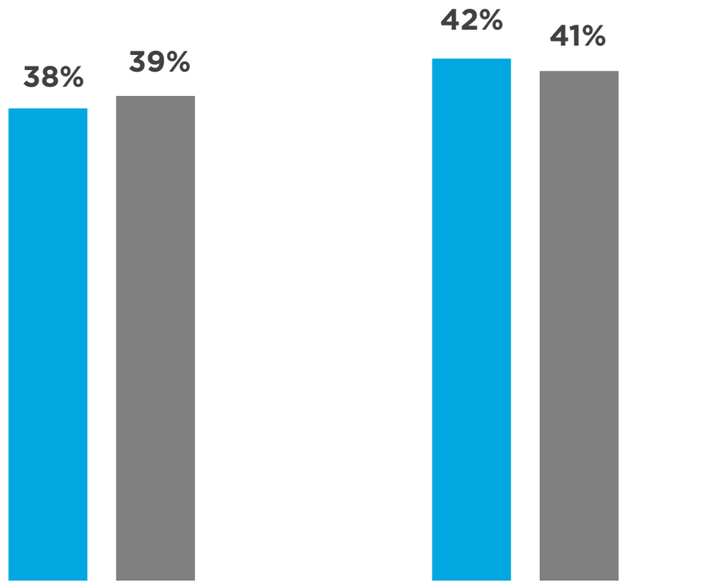
How do you feel about the future of the **global** economy?



UNITED STATES INTERNATIONAL

Overall, the aerospace industry outlook is cautiously optimistic.

How do you feel about the future of the aerospace industry?



UNITED STATES INTERNATIONAL

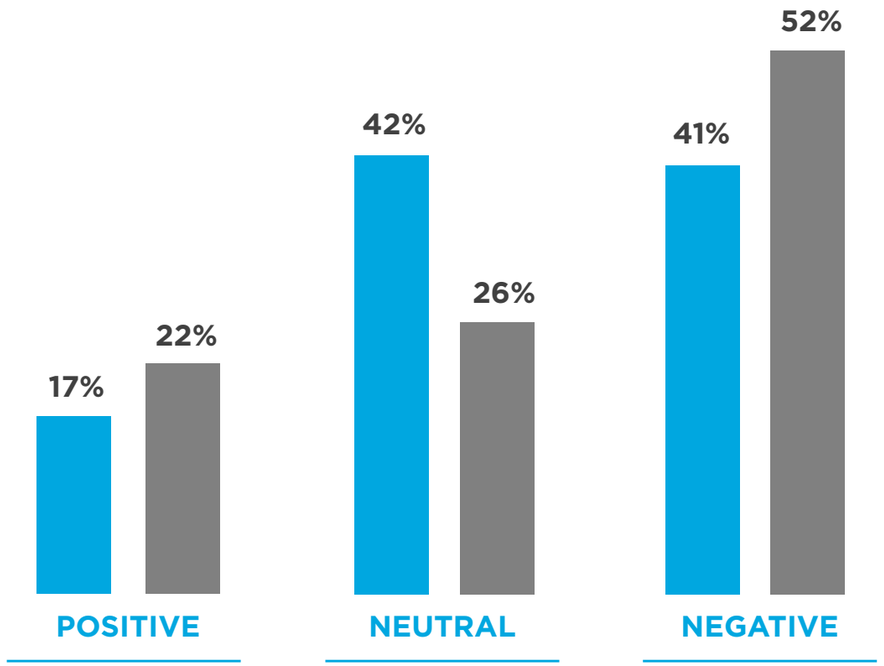
Funding basic research and budget predictability top the list for federal action in aerospace.

Investing in foundational experimental and computational capabilities for research that will drive the United States to preeminence in global science and technology.

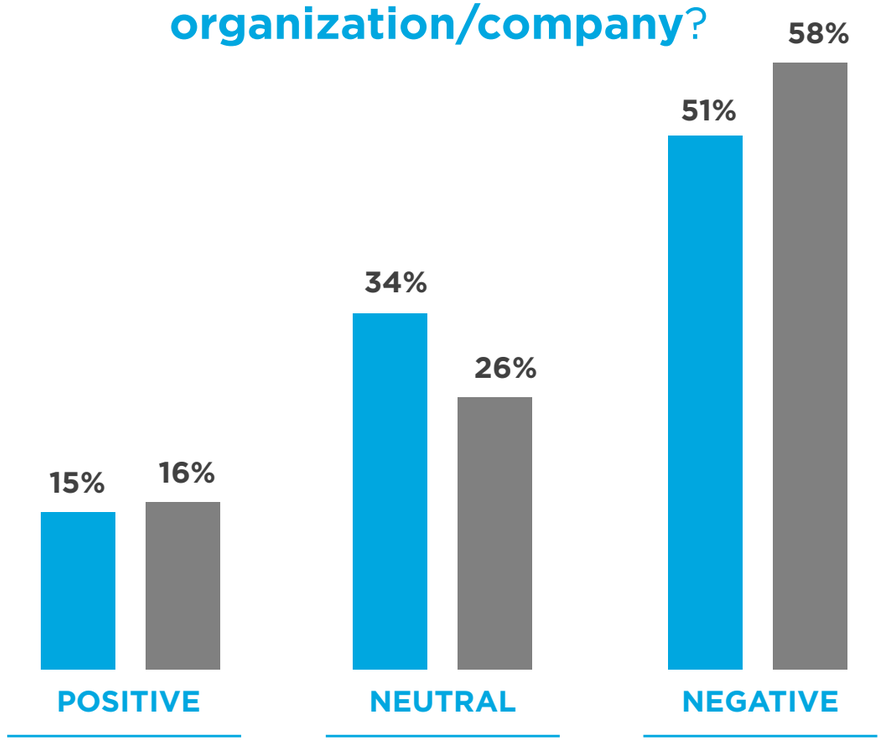
Maintaining predictable and sustainable budgets to assure timeliness and efficiency.

Impacts of COVID-19 are mixed for individual careers, largely negative for the industry

How would you say the COVID-19 pandemic has impacted you **personally** in your role or career?

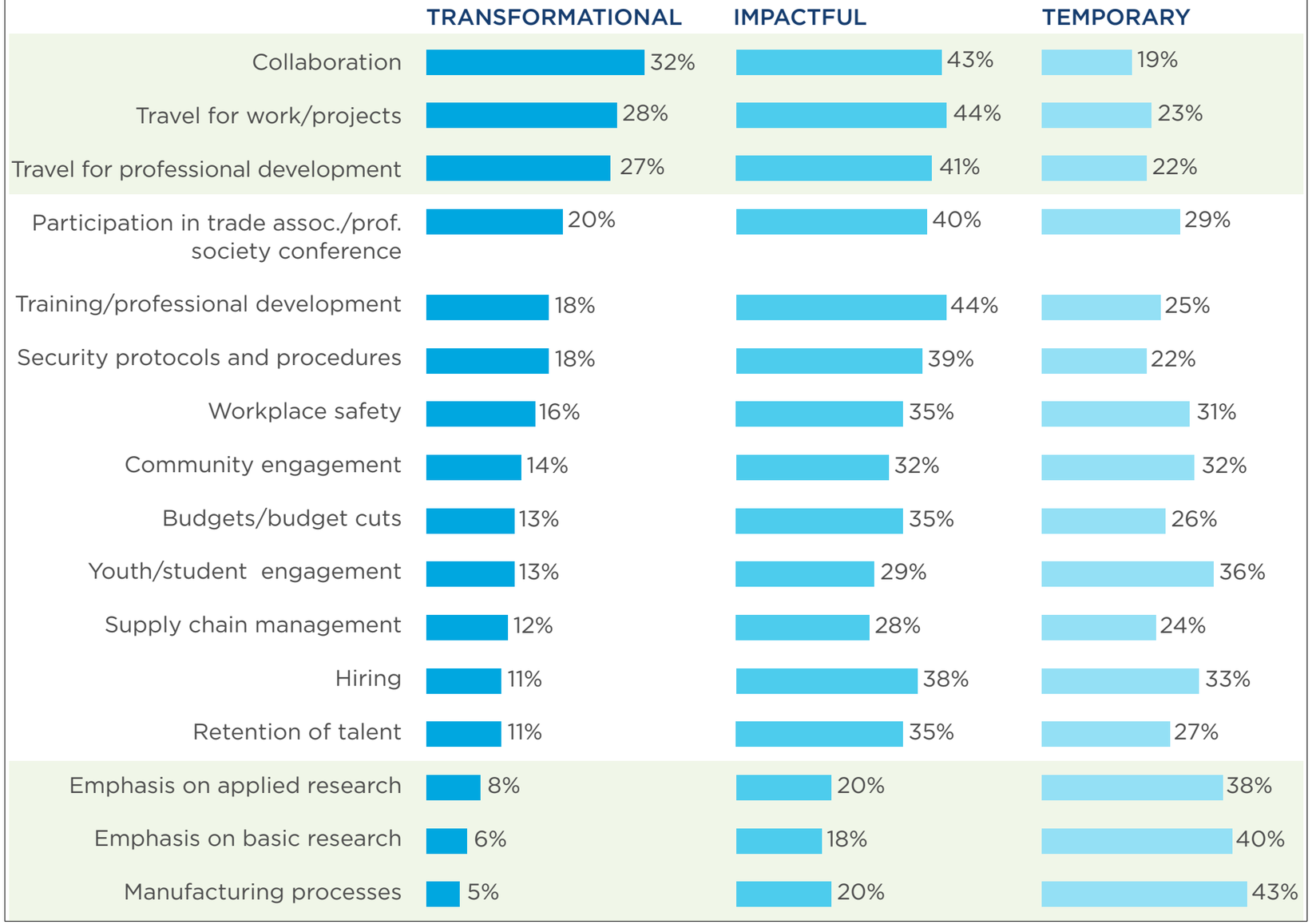


How would you say the COVID-19 pandemic has impacted your **organization/company**?



UNITED STATES INTERNATIONAL

COVID-19 impacts to collaboration and travel have been transformational to business operations

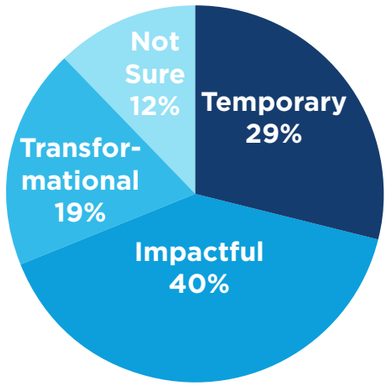


In the United States, those working in academic settings and aviation report more negative impact from COVID-19

		AIAA MEMBER	NON-MEMBER	ACADEMIA	SPACE	AVIATION
PERSONAL IMPACT	Extremely/very positive	6%	10%	8%	7%	8%
	Somewhat positive	10%	16%	3%	15%	10%
	Neutral	43%	39%	41%	43%	36%
	Somewhat negative	32%	27%	39%	28%	34%
	Extremely/very negative	9%	8%	9%	6%	12%
IMPACT TO ORGANIZATION	Extremely/very positive	2%	5%	0%	4%	3%
	Somewhat positive	13%	11%	6%	13%	10%
	Neutral	33%	40%	18%	42%	22%
	Somewhat negative	35%	34%	55%	29%	20%
	Extremely/very negative	16%	11%	21%	12%	35%

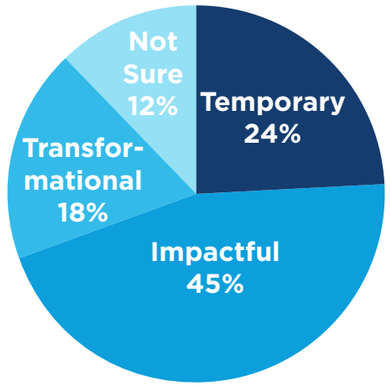
U.S. respondents expect changes to professional development and association participation to be impactful

Participation in Trade Association/ Professional Society Conference



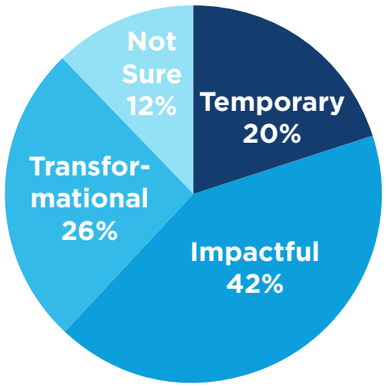
TEMPORARY HIGHER AMONG	
Men	31%

Training/Professional Development



TRANSFORMATIONAL HIGHER AMONG	
20+ Years in Industry	22%
Non-White Respondents	26%

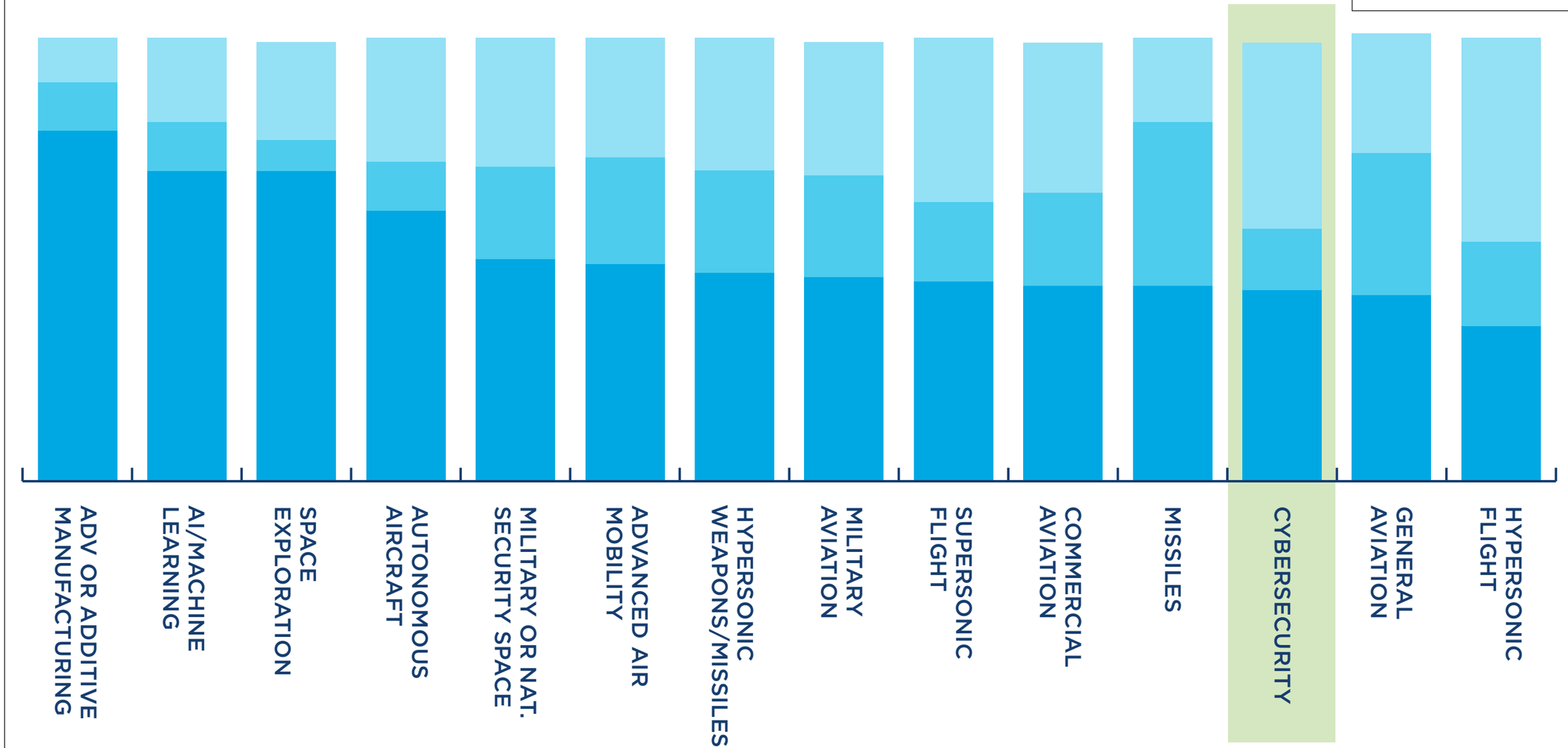
Travel for Professional Development



TRANSFORMATIONAL HIGHER AMONG	
10+ Years in Industry	29%

Most Opportunities Seen in Advanced Manufacturing, AI/Machine Learning, and Space Exploration

Cybersecurity represents both an opportunity to innovate solutions and a challenge — the industry is evenly divided.



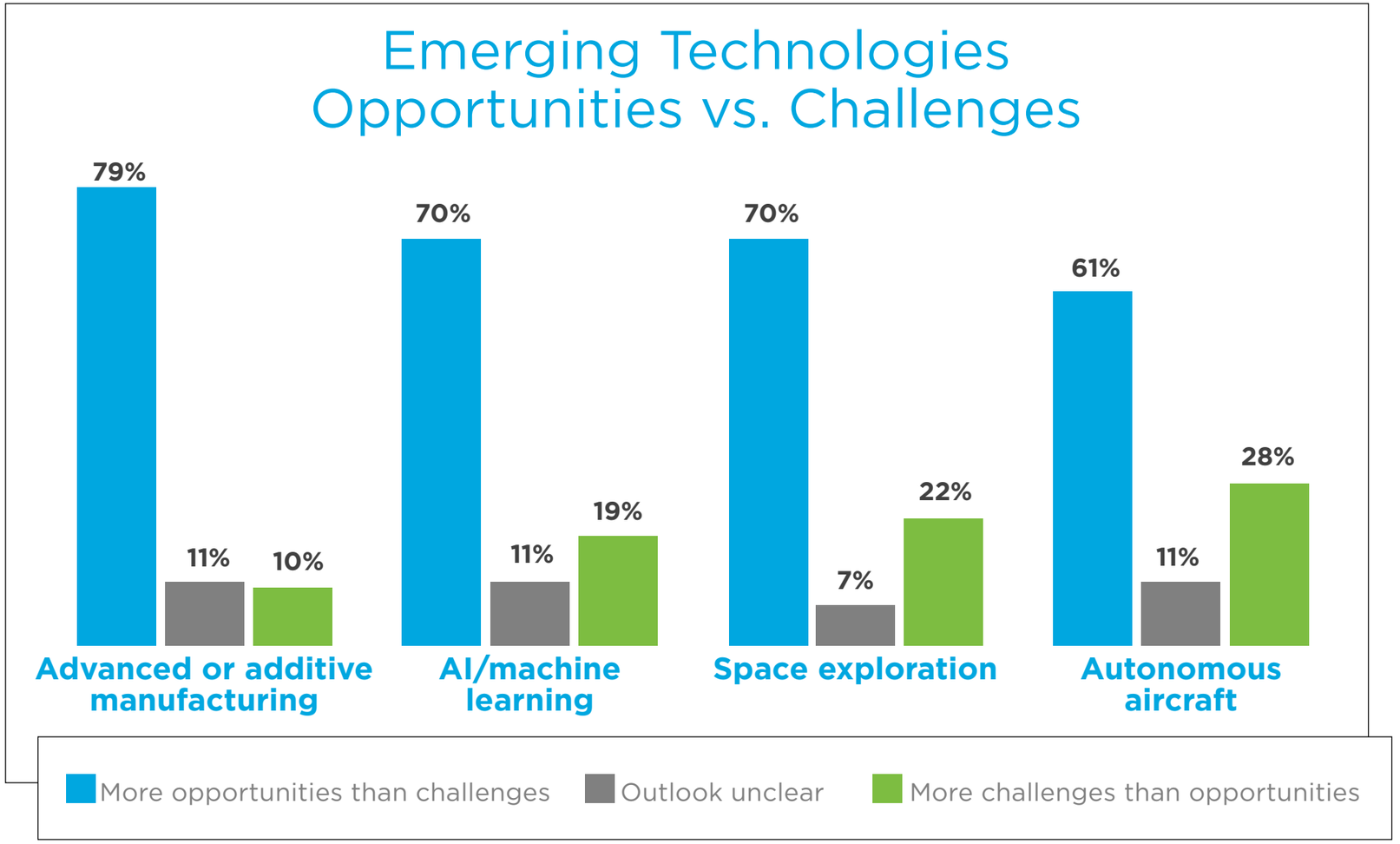
Priorities Differ Between U.S. and International Colleagues

Close alignment seen on new and emerging tech and DEI in the workplace; views differ on cybersecurity and sustainability

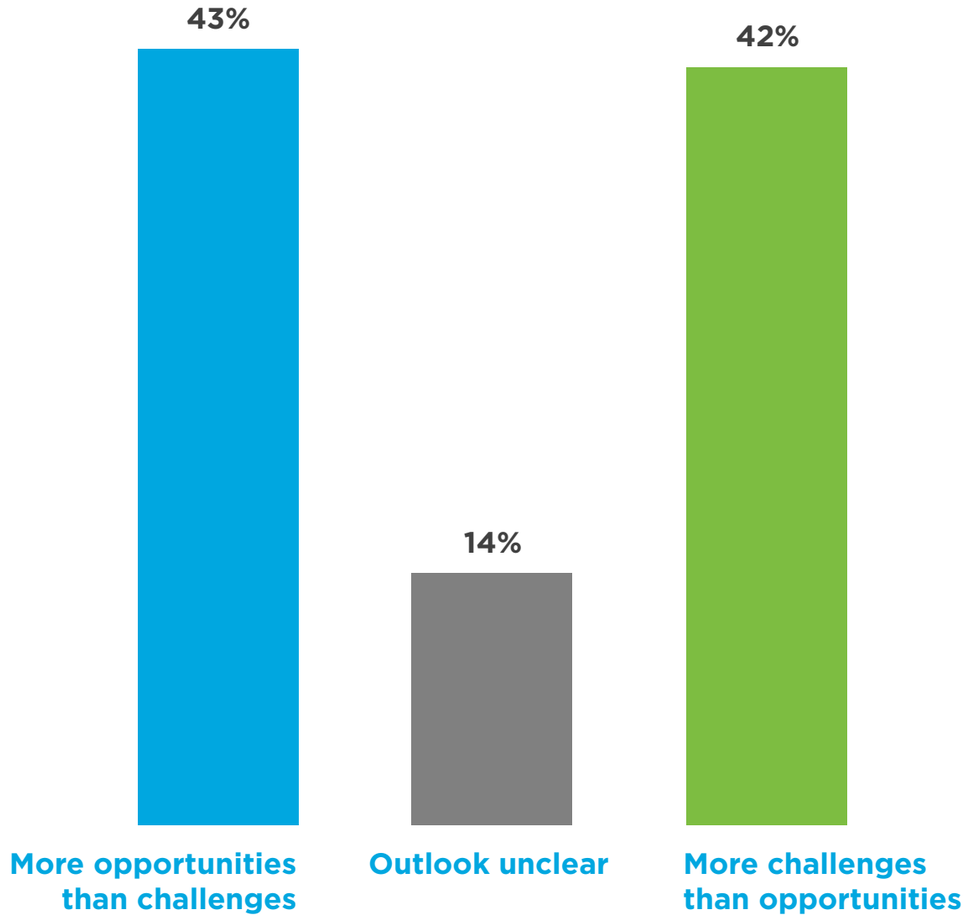
AREAS OF AGREEMENT	INDUSTRY	UNITED STATES	INTERNATIONAL
New & Emerging Technologies	39%	39%	38%
Diversity, equity and inclusion in your workplace	34%	35%	29%
Diversity, equity and inclusion in the industry	23%	23%	22%
Workforce development	17%	16%	18%

AREAS OF DISAGREEMENT	INDUSTRY	UNITED STATES	INTERNATIONAL
Research & Development	37%	35%	48%
Cybersecurity	35%	37%	27%
COVID and the recovery	32%	31%	40%
STEM Ed/Student pipeline to aerospace	20%	19%	27%
Sustainability	19%	17%	32%

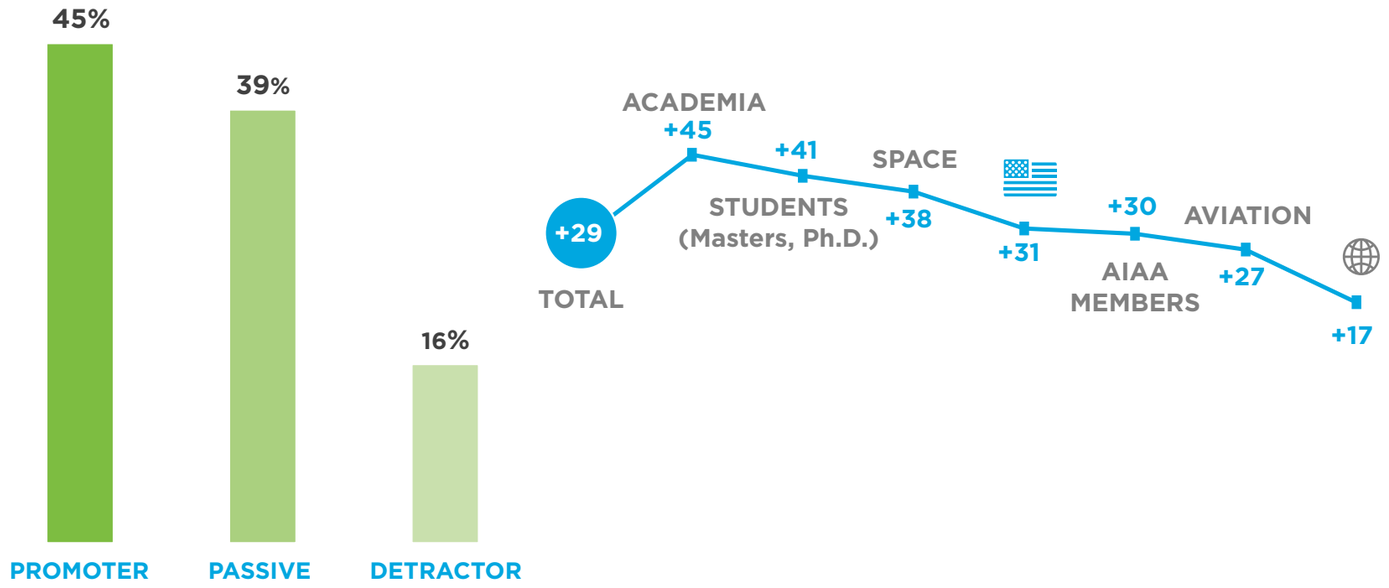
Emerging Technologies
Opportunities vs. Challenges



Cybersecurity represents both an opportunity to innovate solutions and a real challenge — the industry is divided.



The likelihood to recommend a career in aerospace to a young person right now is high with an NPS of 29.



CALCULATING NPS

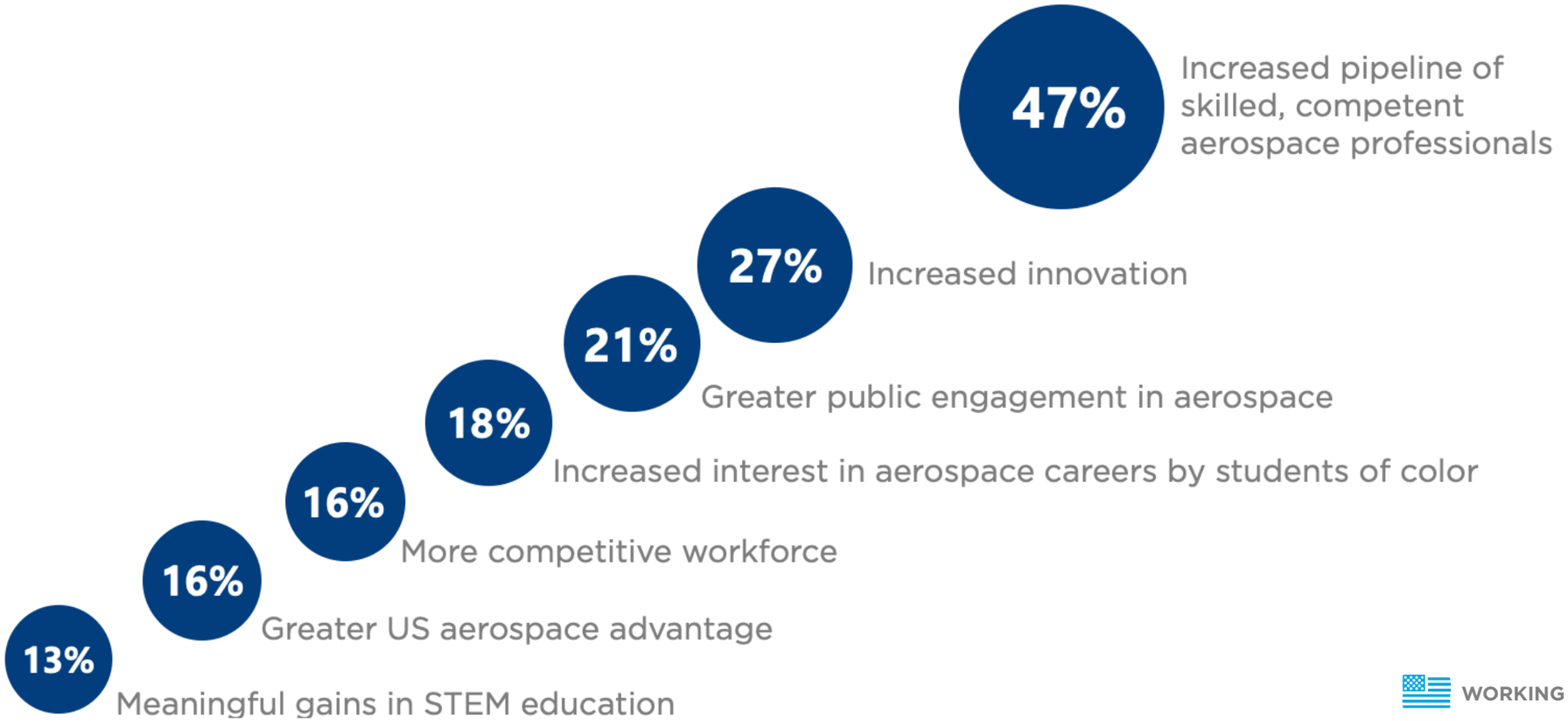
On a 10-point scale where 10 means “extremely likely” to recommend:

- Promoters= 9, 10
- Passives= 7, 8
- Detractors= 0-6

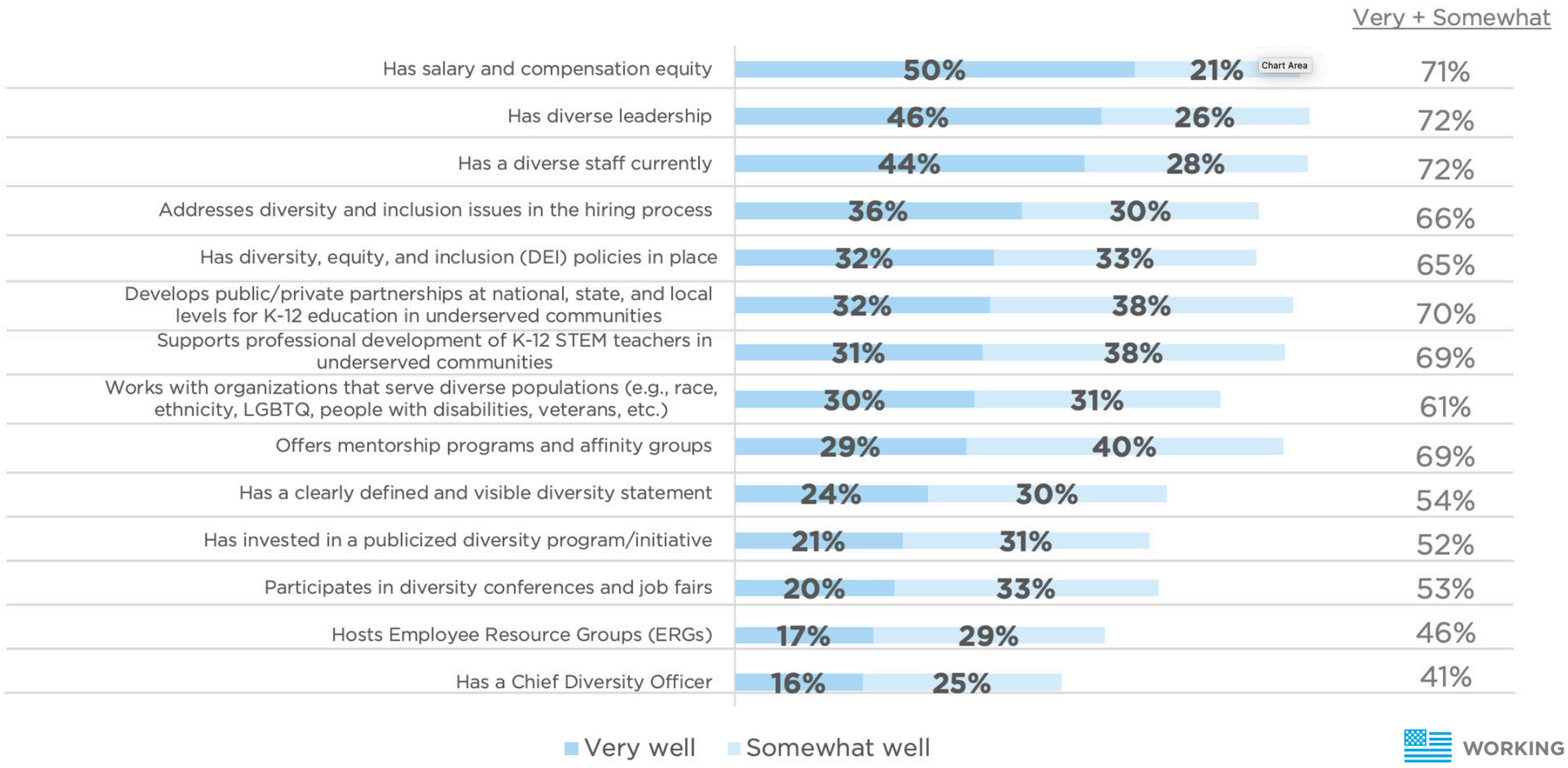
Net promoter is calculated by subtracting the percentage “detractors” from the percentage “promoters” to obtain an overall “health” score.

The most significant perceived benefit to DEI is increasing the pipeline of skilled professionals

Industry professionals also see a benefit of increased innovation and greater engagement



Characteristics that Demonstrate Employer Commitment to DEI



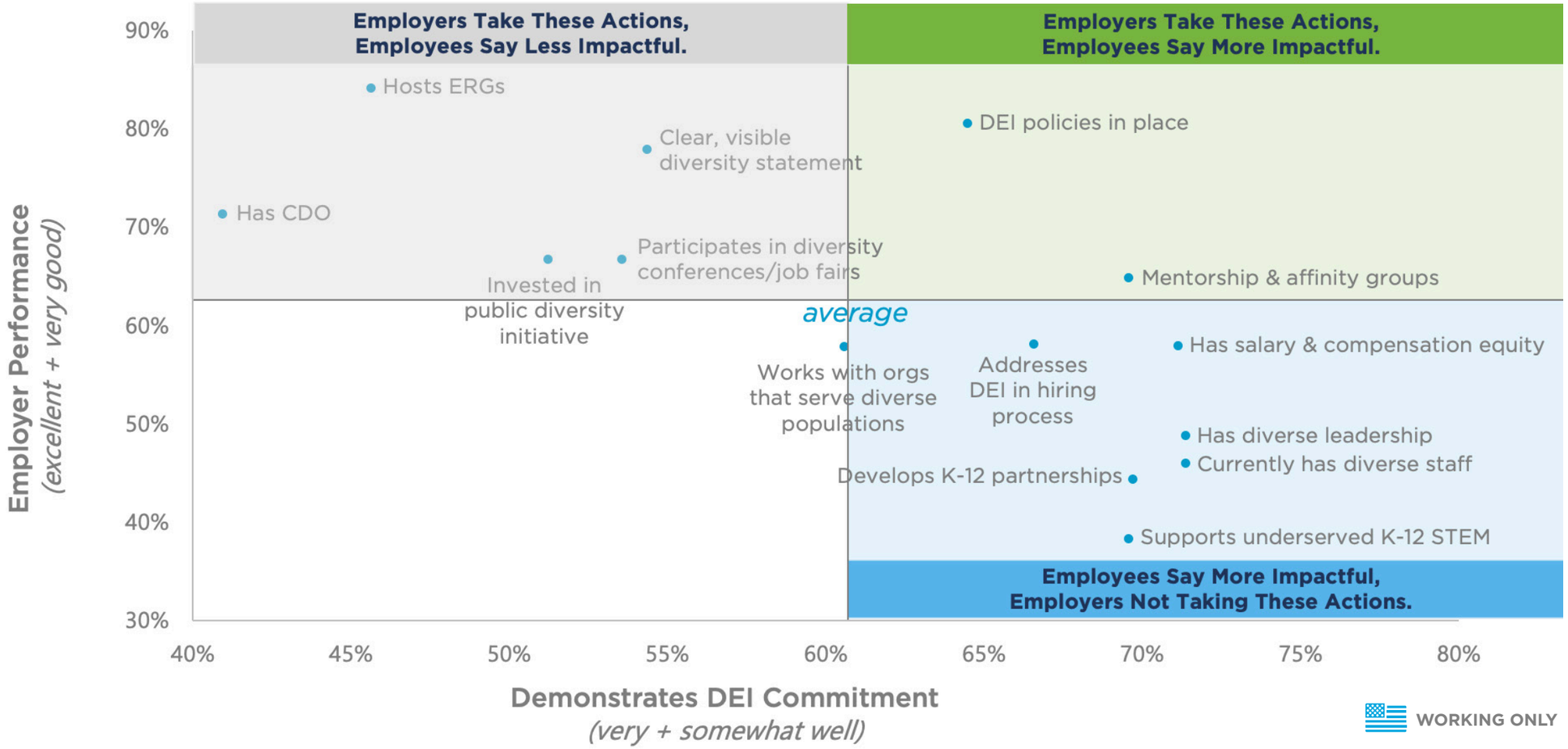
Disconnect on DEI Between C-Suite and Staff

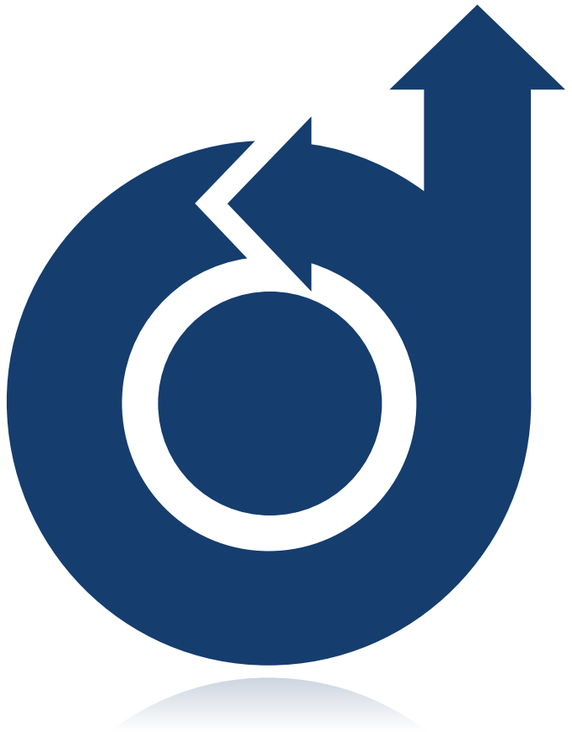
	C-Suite	Staff
Has salary and compensation equity	76%	72%
Has diverse leadership	64%	71%
Has a diverse staff currently	60%	72%
Addresses diversity and inclusion issues in the hiring process	62%	67%
Has diversity, equity, and inclusion (DEI) policies in place	52%	67%
Develops public/private partnerships at national, state, and local levels for K-12 education in underserved communities	62%	70%
Supports professional development of K-12 STEM teachers in underserved communities	74%	70%
Works with organizations that serve diverse populations (e.g., race, ethnicity, LGBTQ, people with disabilities, veterans, etc.)	55%	62%
Offers mentorship programs and affinity groups	74%	69%
Has a clearly defined and visible diversity statement	40%	54%
Has invested in a publicized diversity program/initiative	48%	55%
Participates in diversity conferences and job fairs	45%	52%
Hosts Employee Resource Groups (ERGs)	43%	50%
Has a Chief Diversity Officer	38%	42%

WORKING ONLY

Comparing perceptions of performance on indicators of DEI shows lower scores on the items that matter most to employees

More public facing efforts are seen as least demonstrative, but are the ones companies are doing most





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