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Colorado Tech Industry Report

 COLORADO TECHNOLOGY ASSOCIATION

Clients





2022 Colorado Tech Industry Report

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 COLORADO TECHNOLOGY ASSOCIATION

2024 Colorado Tech Industry Report



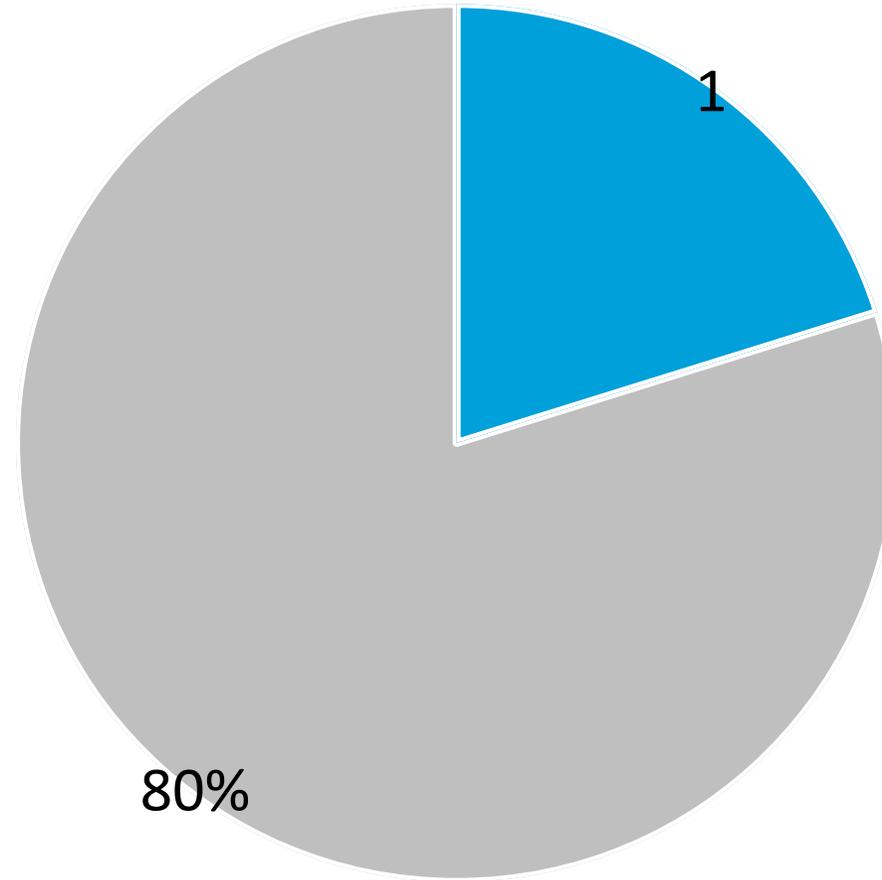
Measuring the Tech Sector Methodology

- **Data from Lightcast, based on Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages**
- **86 separate 6-digit NAICS code sectors to characterize the Total Technology Sector**
- **Total Technology Sector further broken down into four sub-categories:**
 - Energy Technology
 - Environmental Technology
 - Life Sciences
 - IT, Telecomms, Hardware, and Software (Tech Core)
- **85 distinct 5-digit SOC codes grouped to form Tech Occupations**

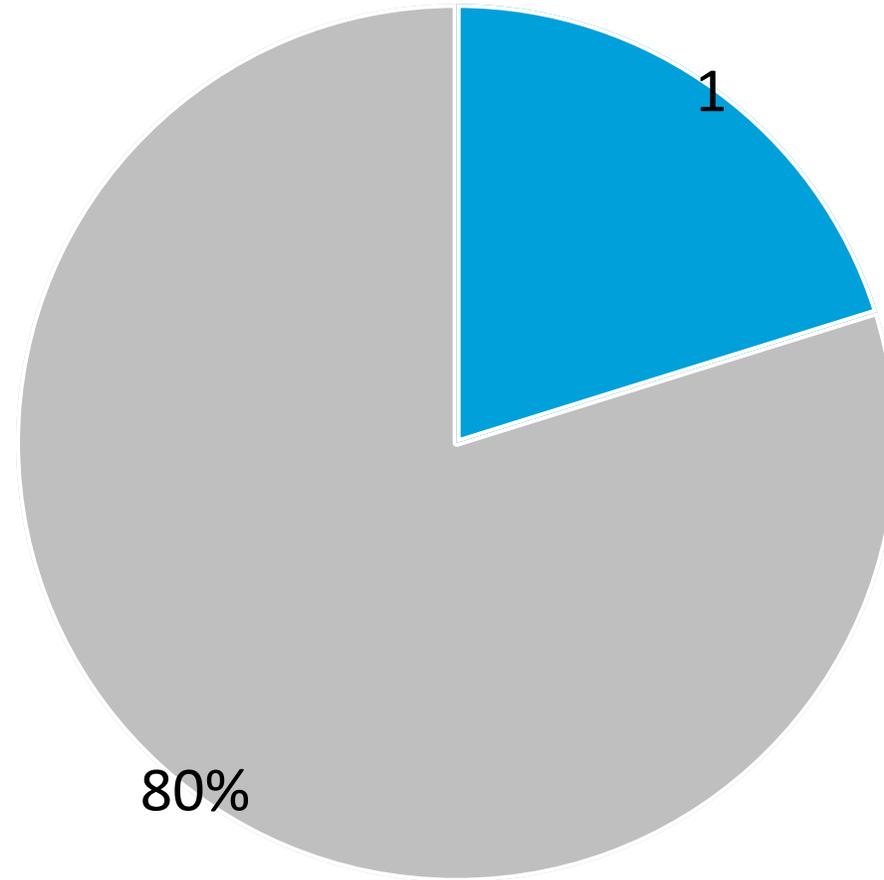
Colorado Tech Industry Summary Statistics, 2023

Indicator	Technology Industry	State Total	State Total Percentage
Employees	302,489	3,065,199	9.9%
Establishments	32,703	258,422	12.7%
Wages (millions)	\$44,574	\$246,072	18.1%

Technology Industry Contribution to Colorado's GDP (2023)



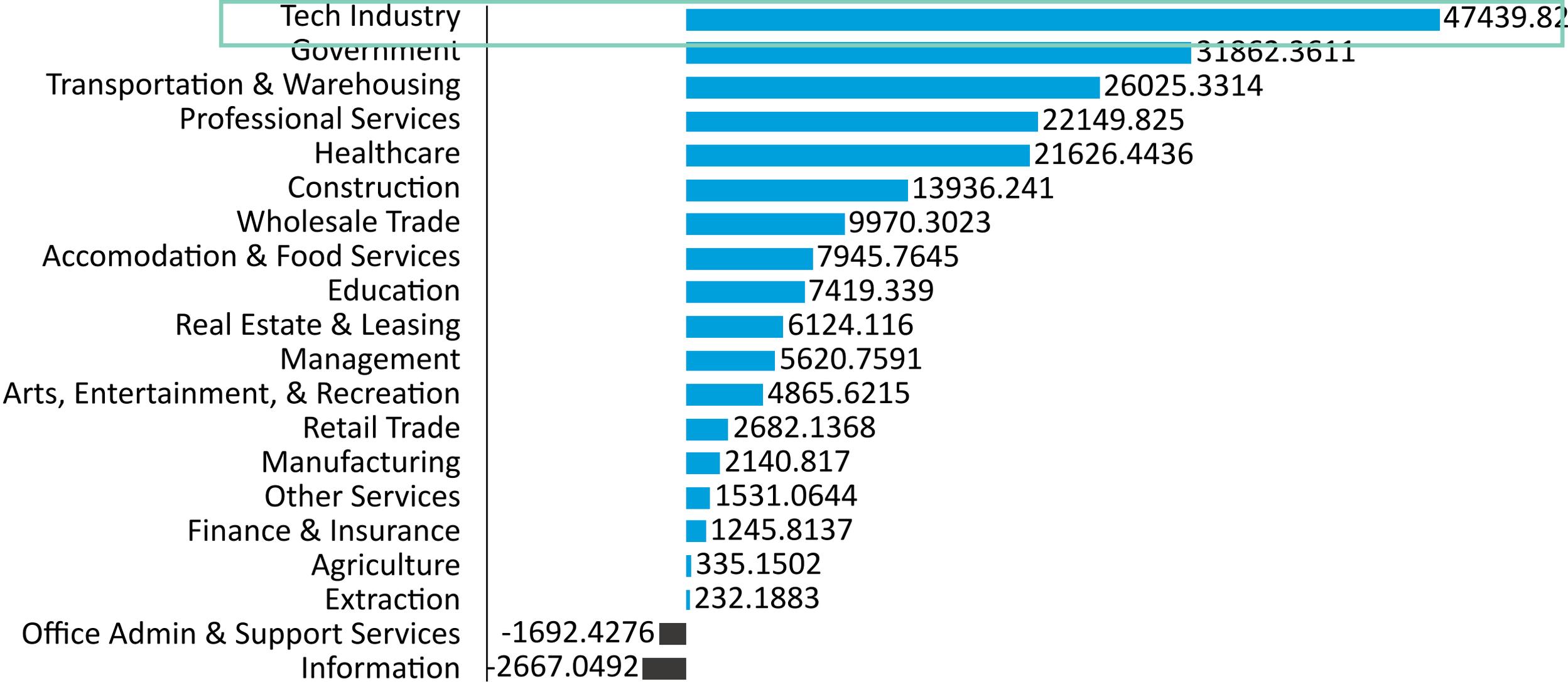
Technology Industry Contribution to Colorado's GDP (2023)



18% of GDP in 2021

Tech industry has played important role in the state economy...

Net Jobs Change in Colorado by Industry (2018-2023)



Source: EL calculations based on Lightcast 2024.4

Colorado Tech Industry by Sub-Categories

Technology Categories	Employment, 2023	Employment Change, 2022-2023	Employment Change, 2018-2023
Energy Tech	27,248	4.9%	-17.1%
Enviro Tech	18,391	4.2%	15.5%
Life Sciences	86,545	4.2%	25.1%
IT	170,306	1.3%	24.2%
TOTAL TECH	302,489	2.6%	18.6%

Colorado Tech Industry by Output Groups

Output Group	Employment, 2023	Employment Change, 2022-2023	Employment Change, 2018-2023
Tech Services	268,913	3.3%	20.4%
Tech Manufacturing	33,576	-2.3%	5.9%
TOTAL TECH	302,489	2.6%	18.6%

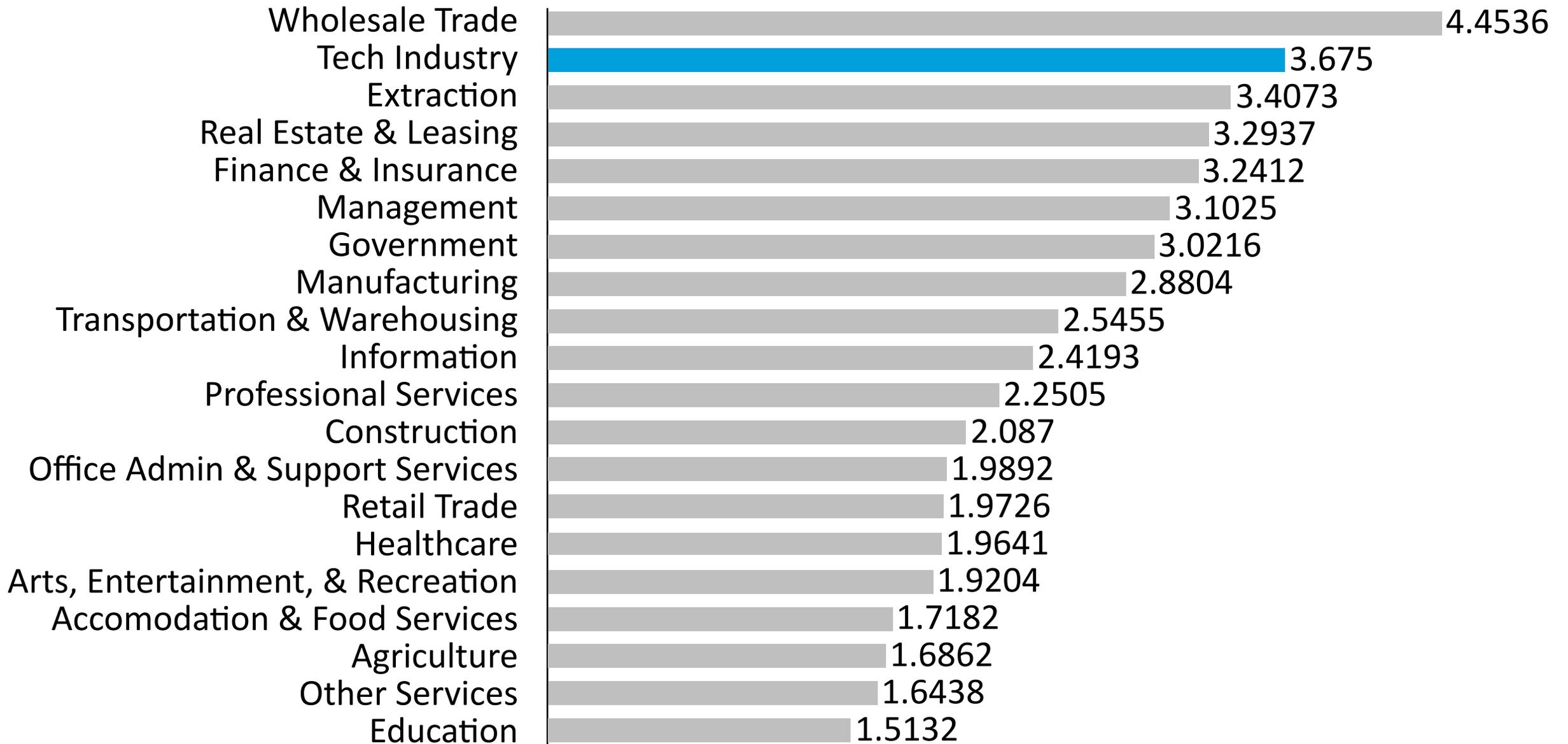
Colorado Average Annual Earnings by Subgroups

Sub-Categories	Colorado	National Average
Energy Tech	\$198,500	\$175,900
Environmental Tech	\$102,200	\$97,600
Life Sciences	\$143,900	\$153,800
IT	\$178,200	\$187,800
Output Group	Colorado	National Average
Tech Services	\$168,400	\$170,200
Tech Manufacturing	\$143,400	\$166,000
TOTAL TECH INDUSTRY	\$165,600	\$169,500

Source: EL calculations based on Lightcast 2024.4 and BEA (2024)



Colorado Job Multiplier by Industry (2023)



Tech Industry Super Sub-Industries

Sub-Industries	2023 Employment	Employment Change (2018-2023)	Concentration
Software	109,002	42%	1.83
Engineering, Environmental, & Clean Tech	52,809	24%	1.91
Internet, Social Media, & Telecom	45,327	-1%	1.56
R&D and Testing	26,934	38%	1.14
Other Energy and Power Generation	26,408	-19%	1.42
Electronics Hardware	15,977	8%	0.92
Life Sciences Manufacturing	14,682	4%	1.03
Remediation and Waste Management	10,510	18%	1.09
Renewable Energy	840	162%	1.39
TOTAL TECH INDUSTRY	302,489	19%	1.51

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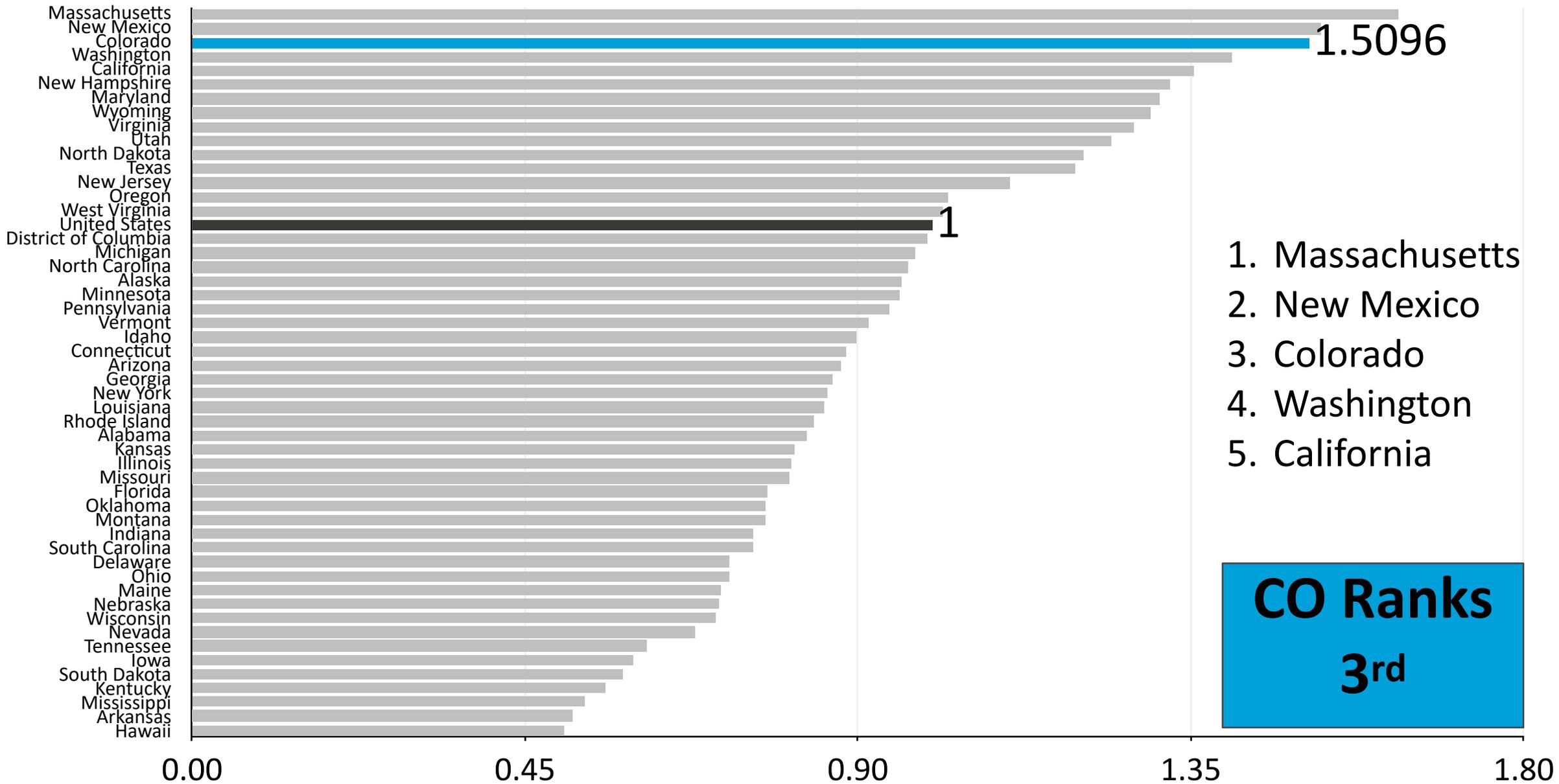
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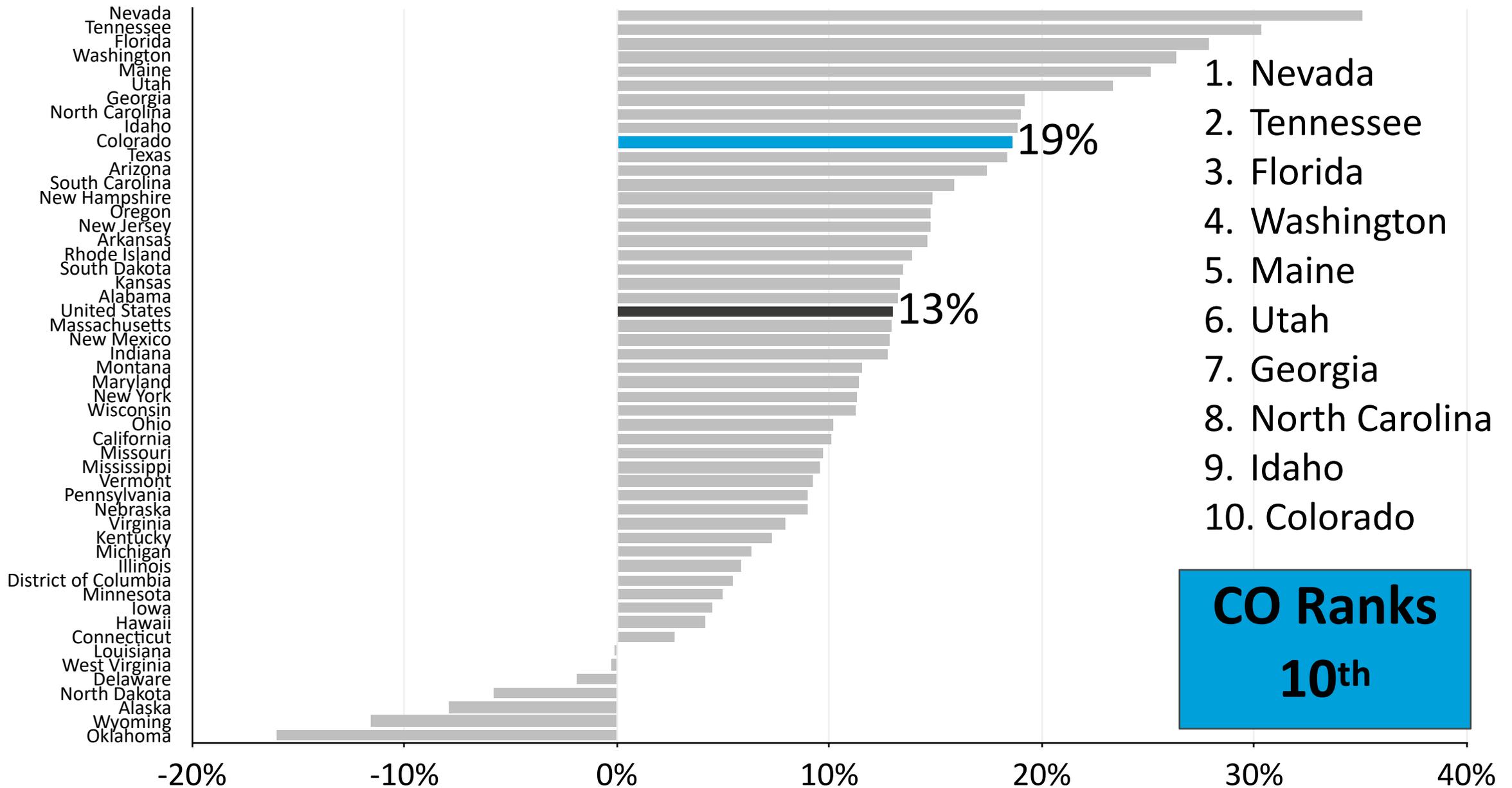
Tech Industry Employment by MSA

MSA	Tech Industry Employment, 2023	Share of State Total
Denver	171,523	57%
Boulder	44,748	15%
Colorado Springs	33,323	11%
Fort Collins	15,253	5%
Greeley	10,159	3%
Grand Junction	3,600	1%
Pueblo	2,911	1%

Employment Concentration of Total Tech Industry (2023)

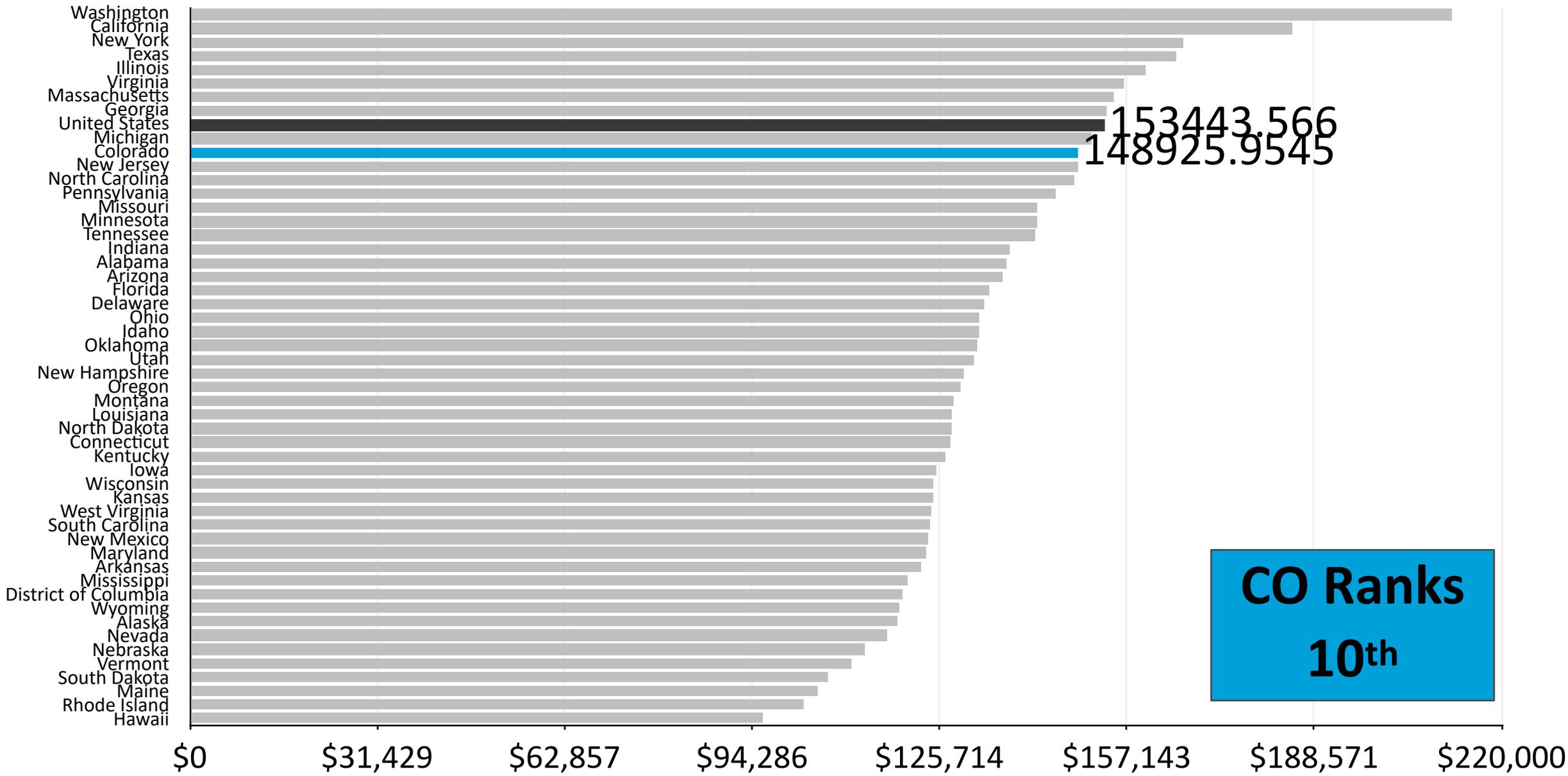


Total Tech Industry Employment Change (2018-2025)



CO Ranks
10th

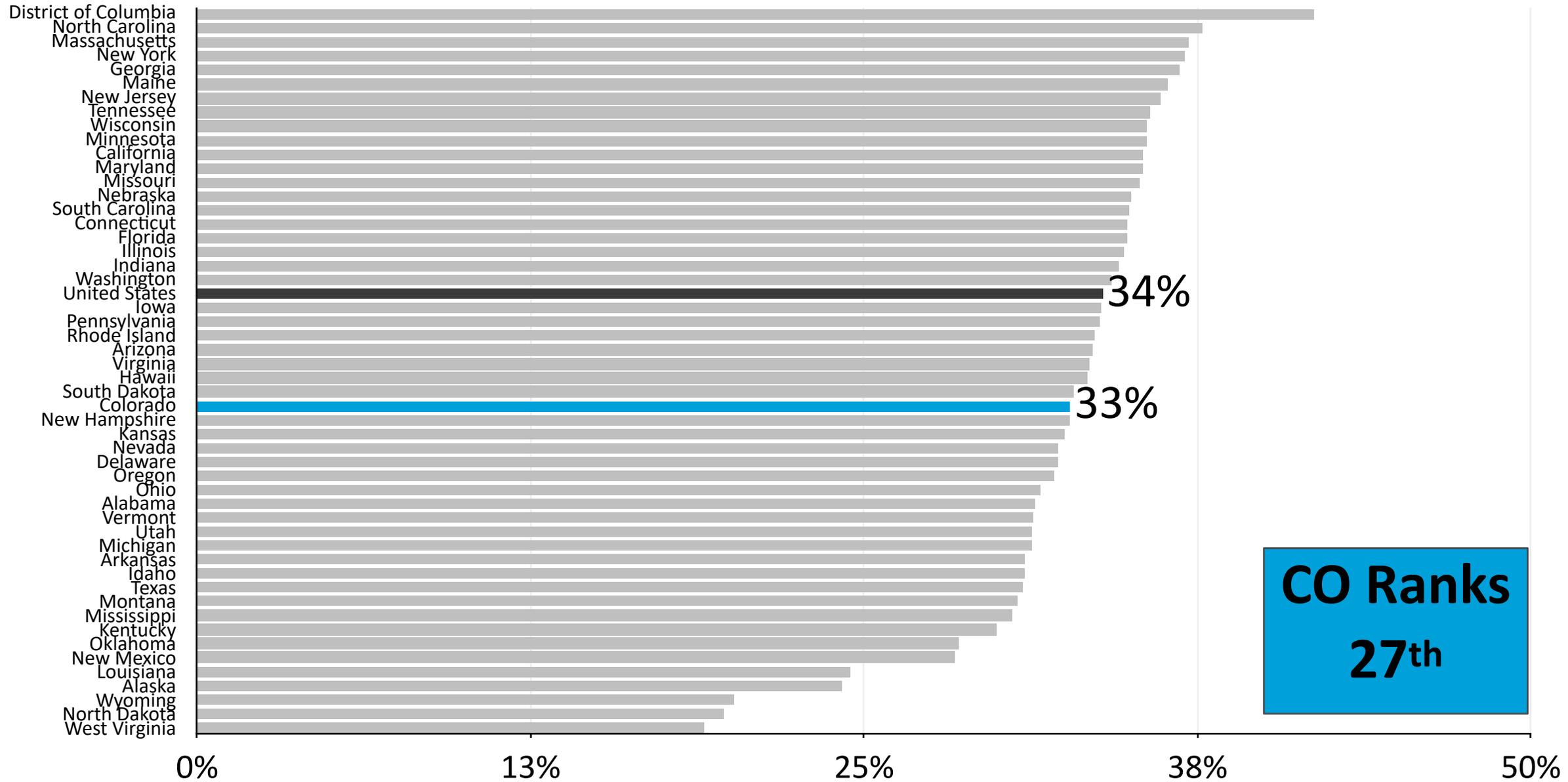
Annual Earnings For Total Tech Industry Employees with COL Adjustment (2025)



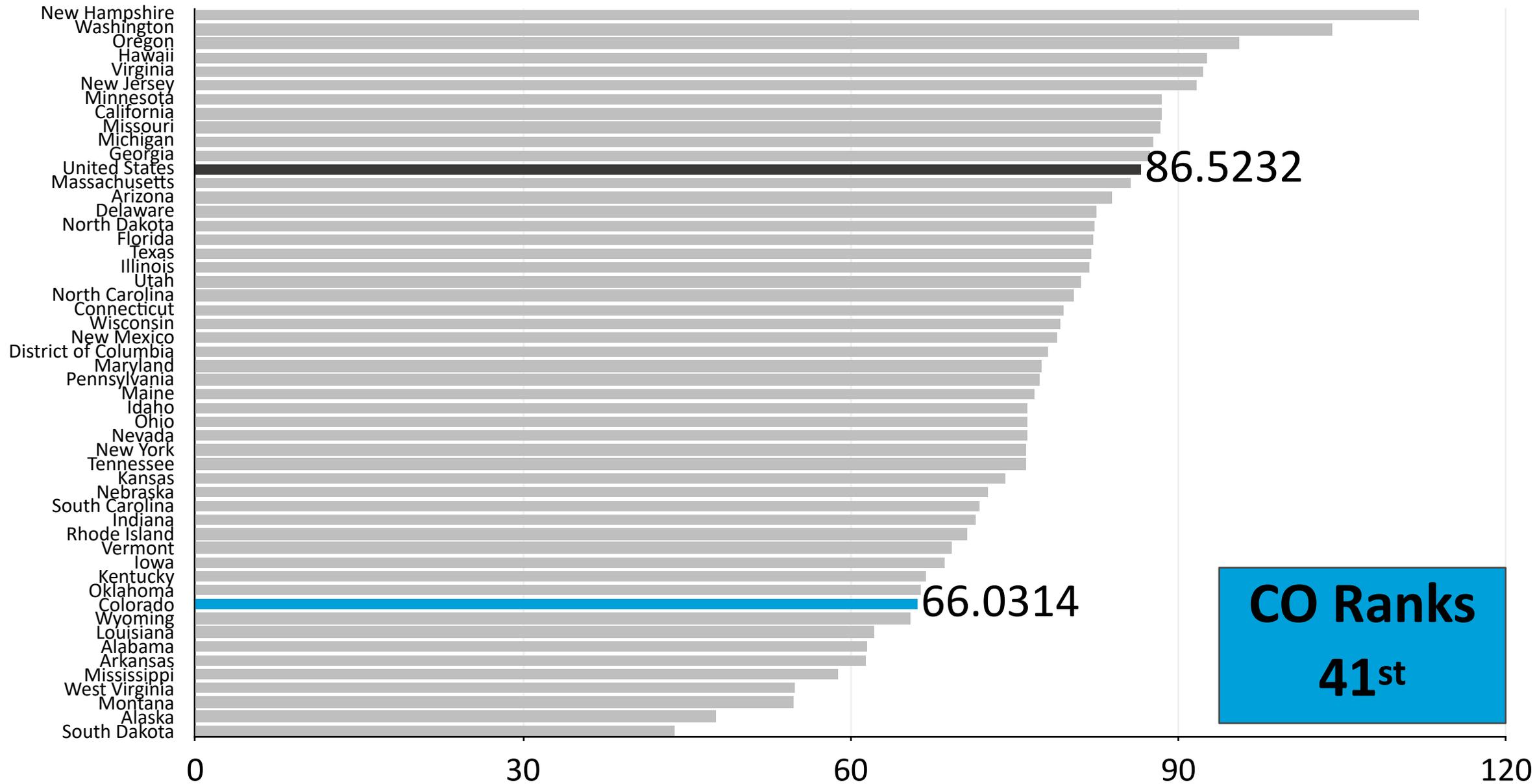
CO Ranks
10th

Source: EL calculations based on Lightcast 2024.4

Percentage of Women in the Tech Industry Workforce (2023)



Total Tech Industry Diversity Index (2023)



Colorado Tech Industry State Rankings

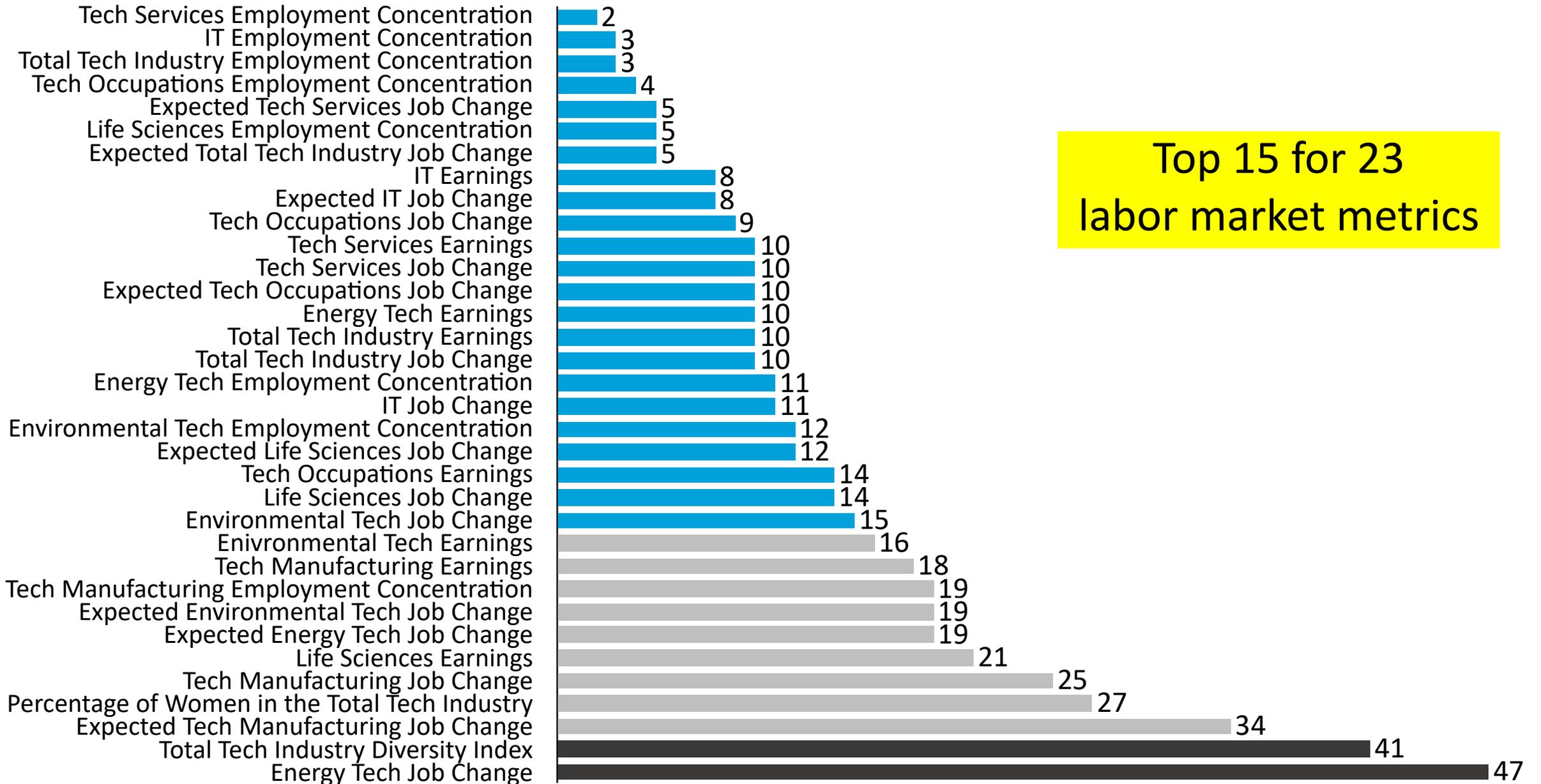
Metric	2021 Rank	2023 Rank
Total Tech Industry Employment Concentration	2	3
Total Tech Industry Job Change	11	10
Expected Total Tech Industry Job Change	6	5
Avg Earnings for Total Tech Industry with Purchasing Power	12	10
Percentage of Women in the Total Tech Industry Workforce	28	27
Total Tech Industry Diversity Index	42	41

Colorado Tech Industry State Rankings

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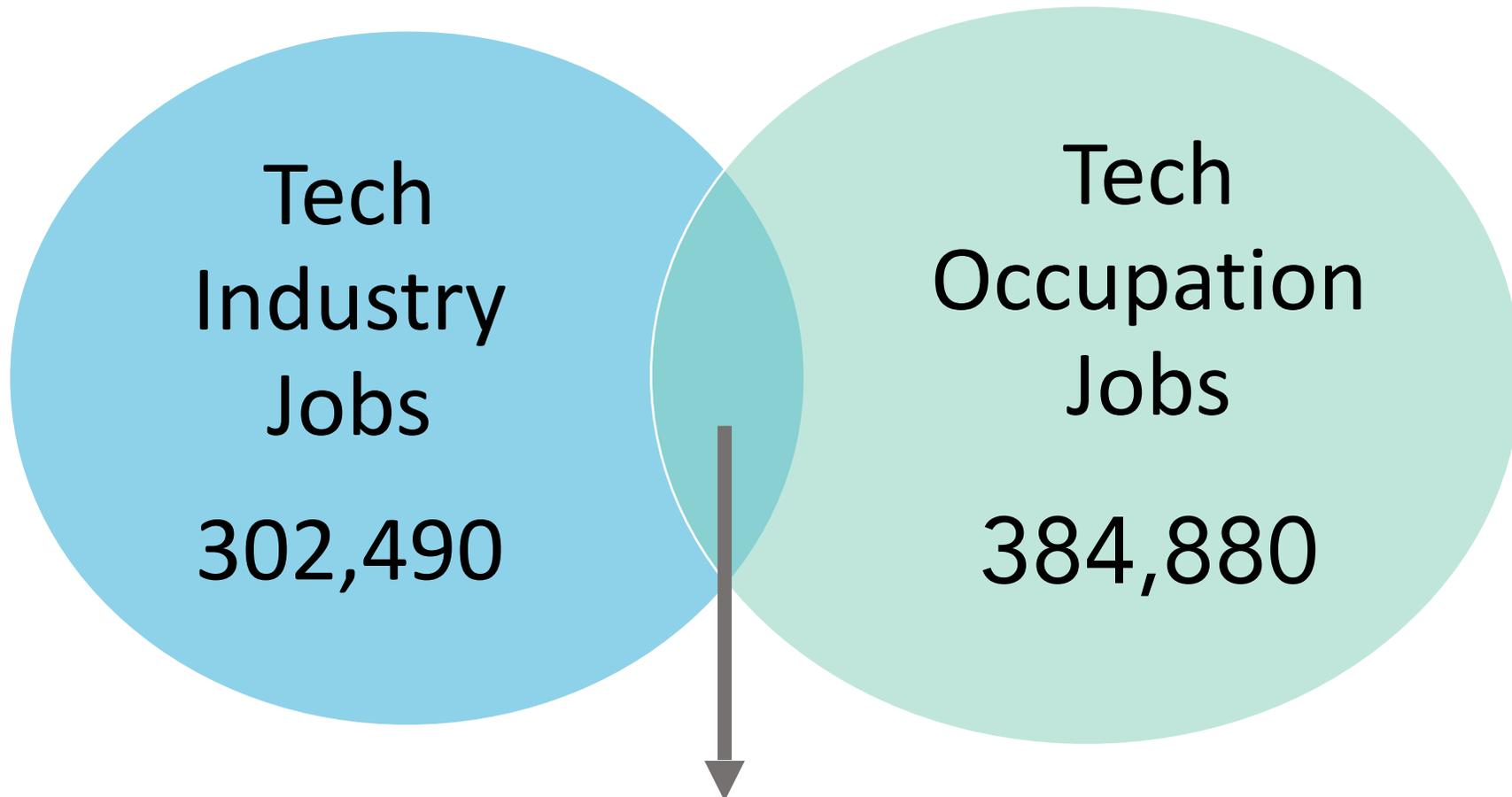


Occupations

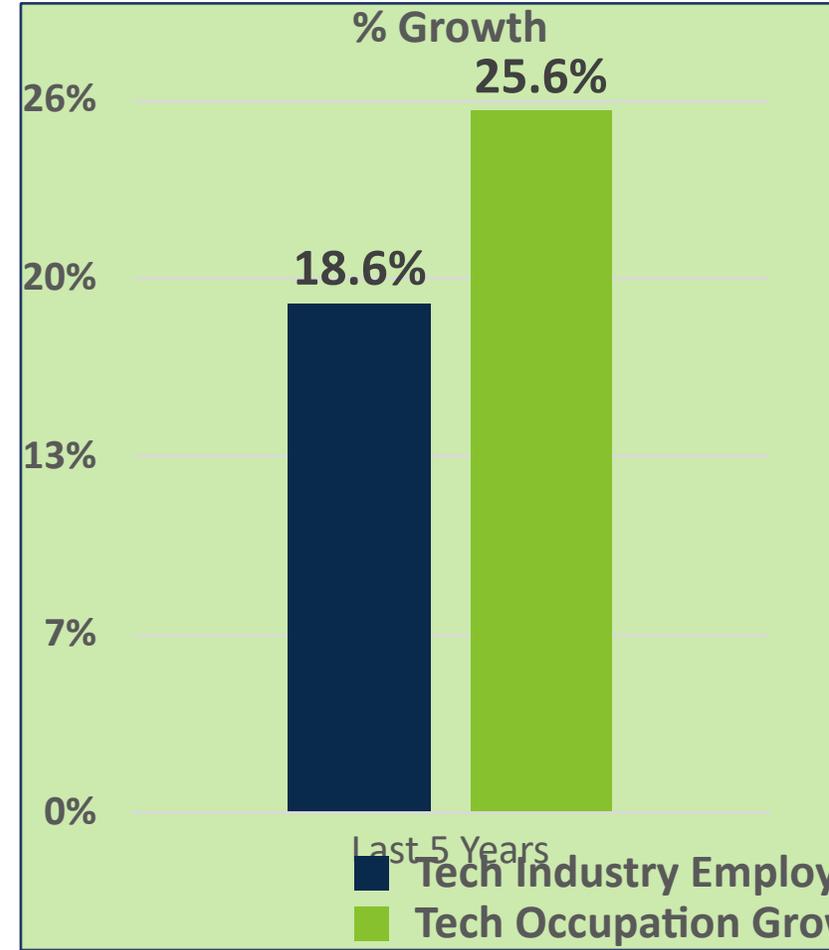


Top 15 for 23
labor market metrics

Staffing Patterns of Tech Industries and Tech Occupations



43% of tech occupation jobs are employed in tech industries.



Top Tech Occupations by Growth

Top Five in Net Job Growth		Top Five in Growth Percentage	
Software Developers	+7,951	Mathematical Science Occupations	+556%
Market Research Analysts	+7,550	Actuaries	+250%
Information Systems Managers	+4,891	Data Scientists	+239%
Data Scientists	+4,119	Semiconductor Processing Technicians	+112%
Financial Analysts	+4,076	Web and Digital Interface Designers	+101%

Top Tech Occupations by Growth

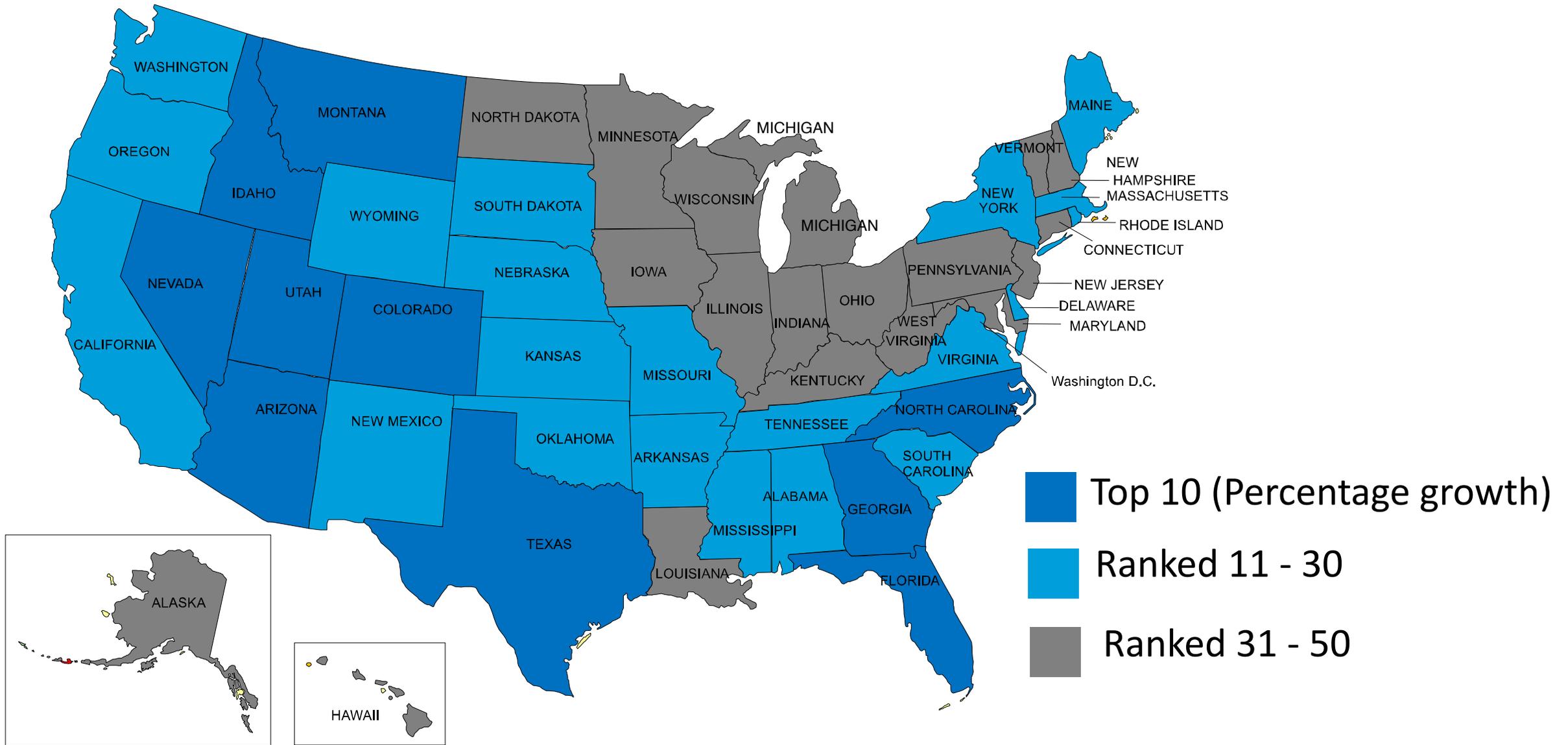
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Colorado Tech Occupations State Rankings

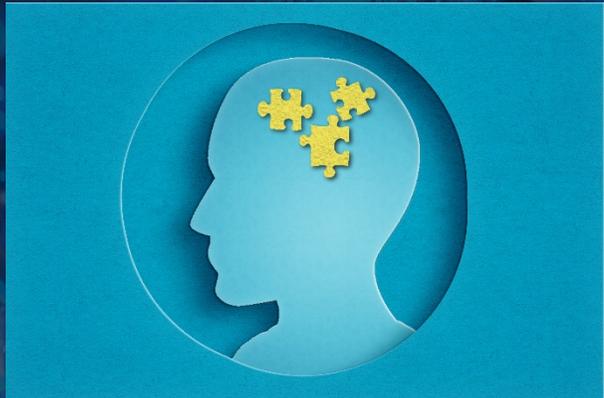
Metric	2021 Rank	2023 Rank
Tech Occupations Employment Concentration	4	4
Tech Occupations Growth	11	9
Expected Tech Occupations Growth	6	10
Median Annual Earnings Adjusted for Purchasing Power	13	14



Tech Occupations Employment Change, 2018 - 2023



Place-Based Competitiveness



Business Climate

Taxes
Regulatory Climate
Legal Climate
Politicians

Workforce

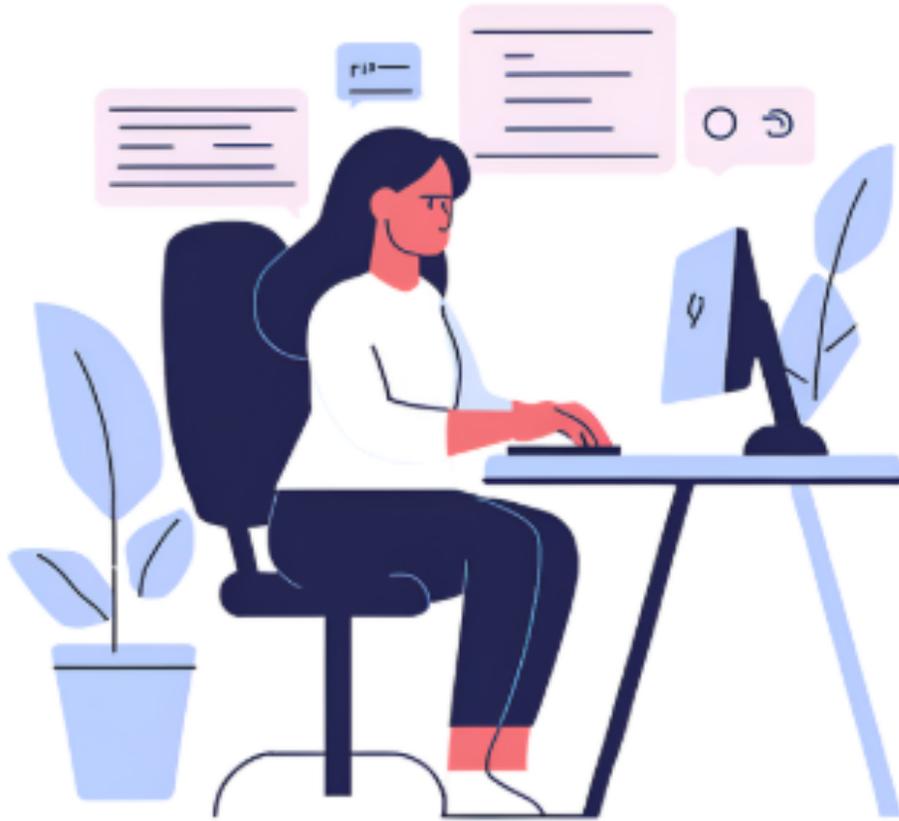
In-migration
Education
Productivity
Costs
Skills
QOL

Risk

Weather
Crime
Fiscal Stability
Political Stability
Out-migration
Geo-economics

Water
Transportation
Broadband
Power
Housing
Childcare
Infrastructure

R&D
Automation
Patents
Advanced Industries
Start-up Ecosystem
Innovation

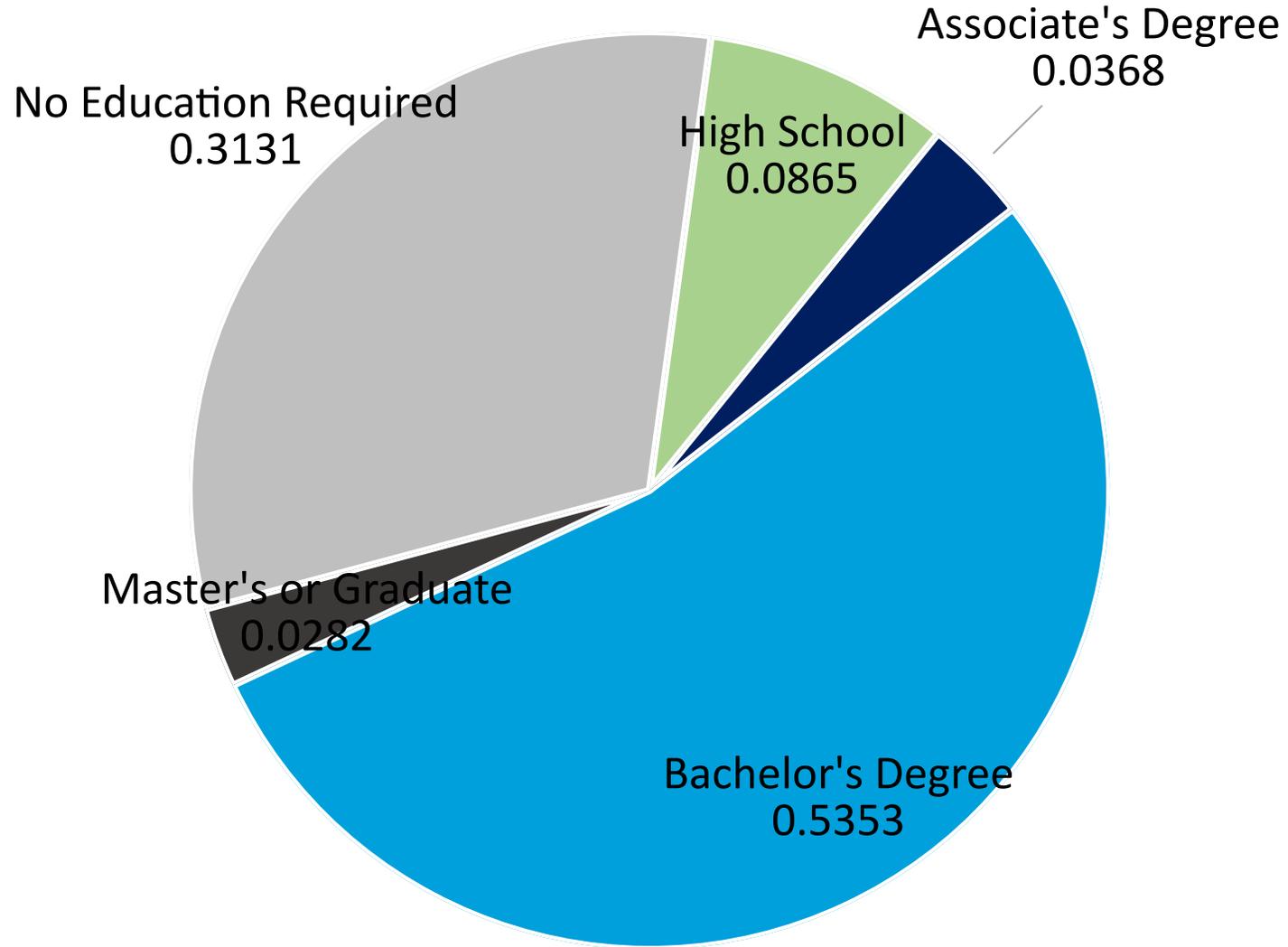


**Workforce
continues to be a
throttle on
growth across
the country**



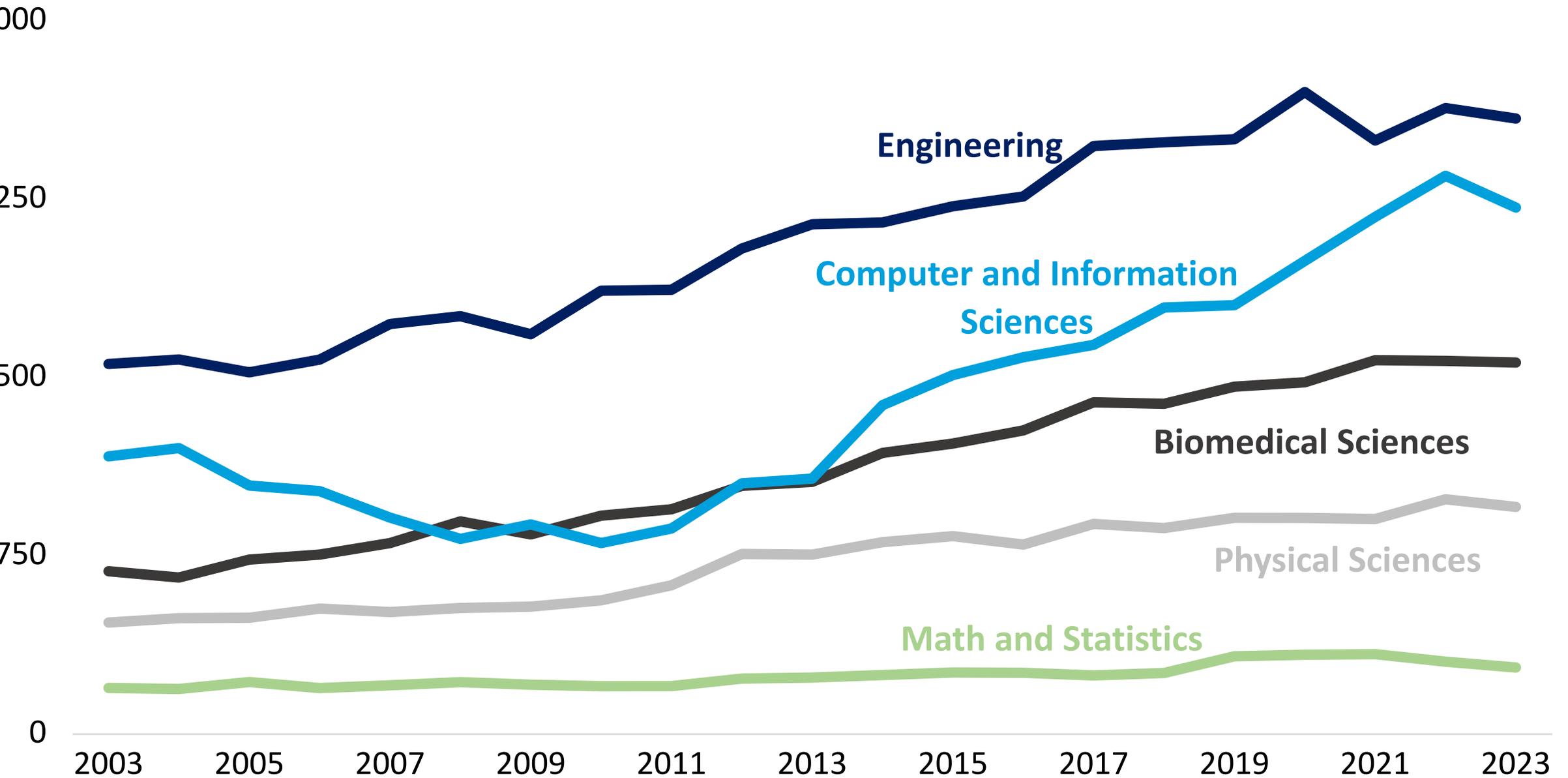
Postings

Oct 2022 - Oct 2024

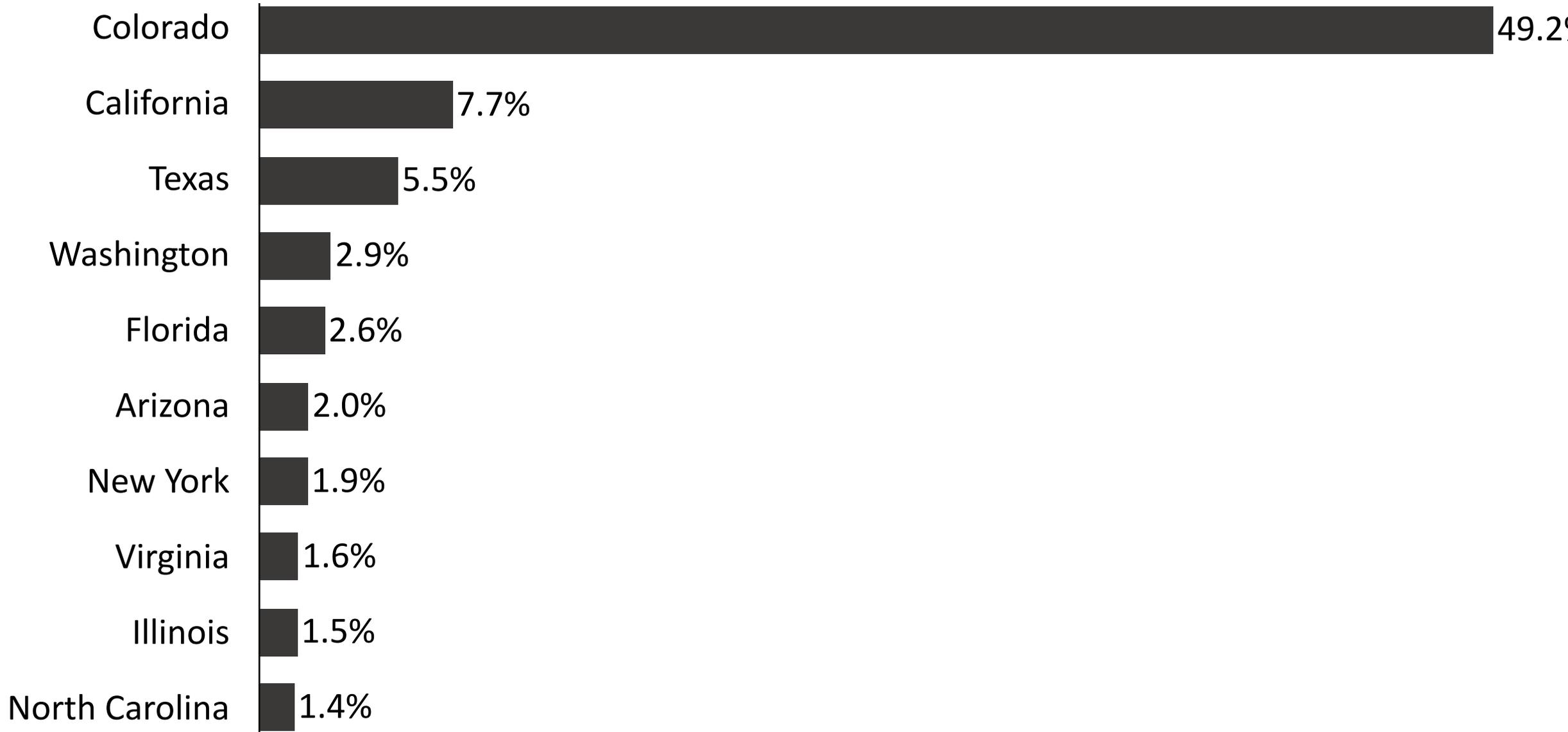


60%
Some
Postsecondary

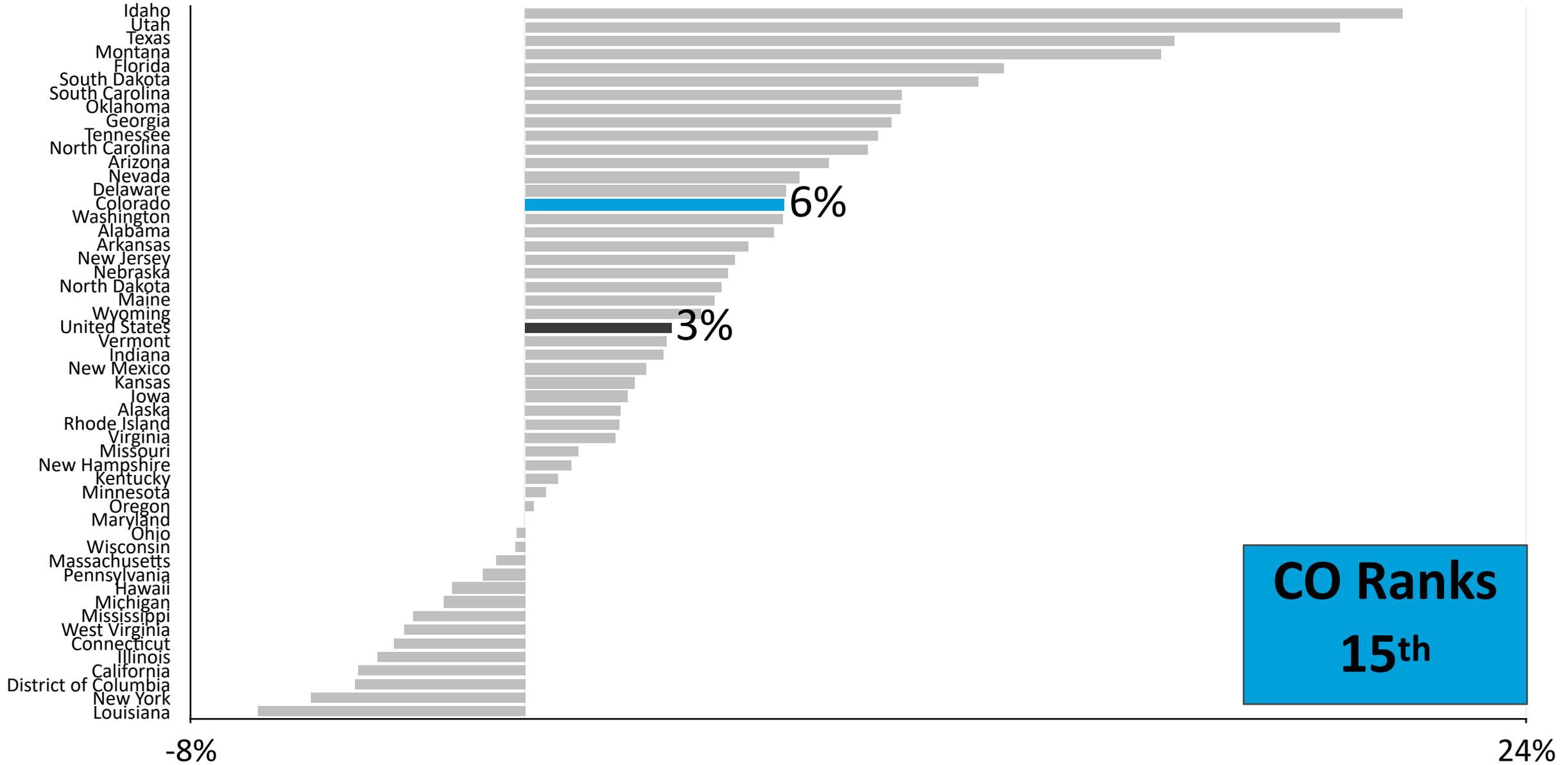
Annual Postsecondary Completions in Colorado for Relevant Programs



Current Location of STEM Program Completers from CO Schools

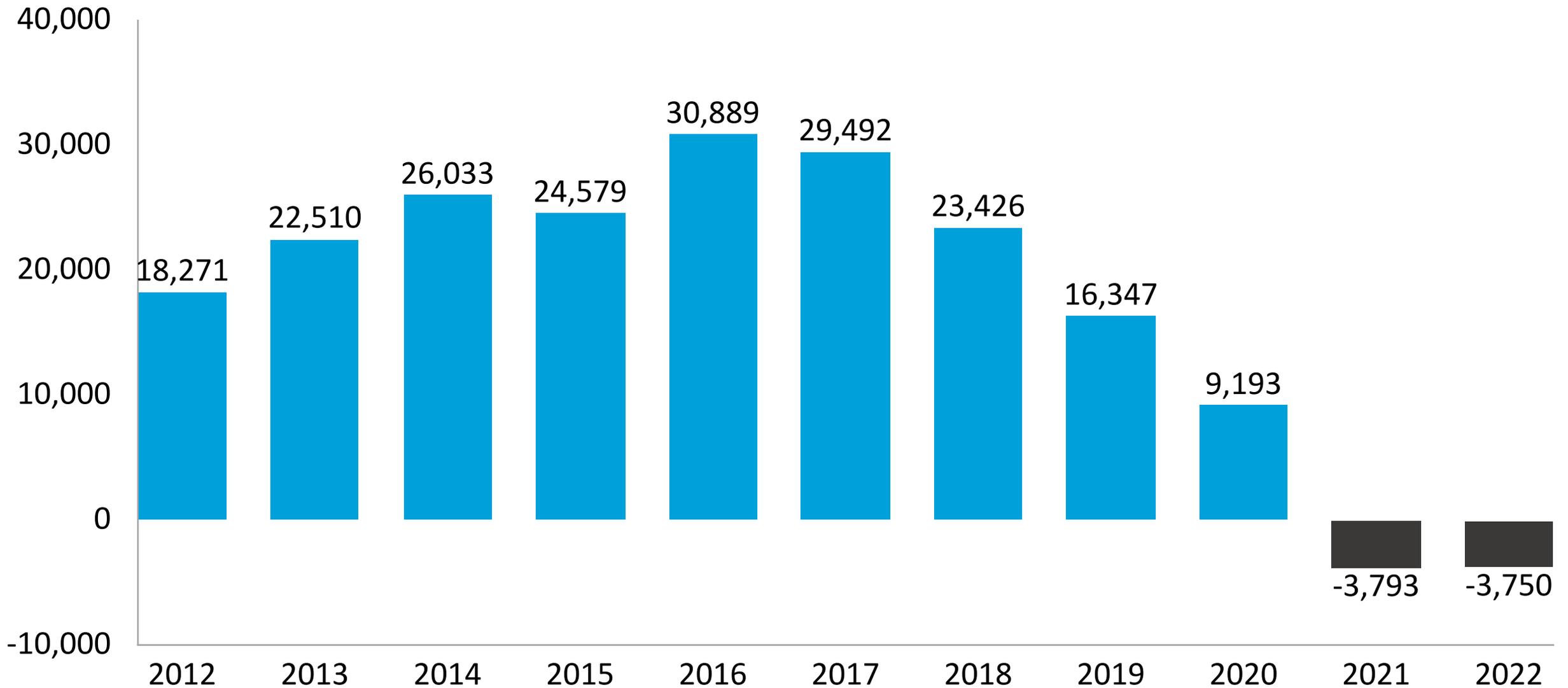


Projected Working Age (25 to 64) Population Change (2024-2034)

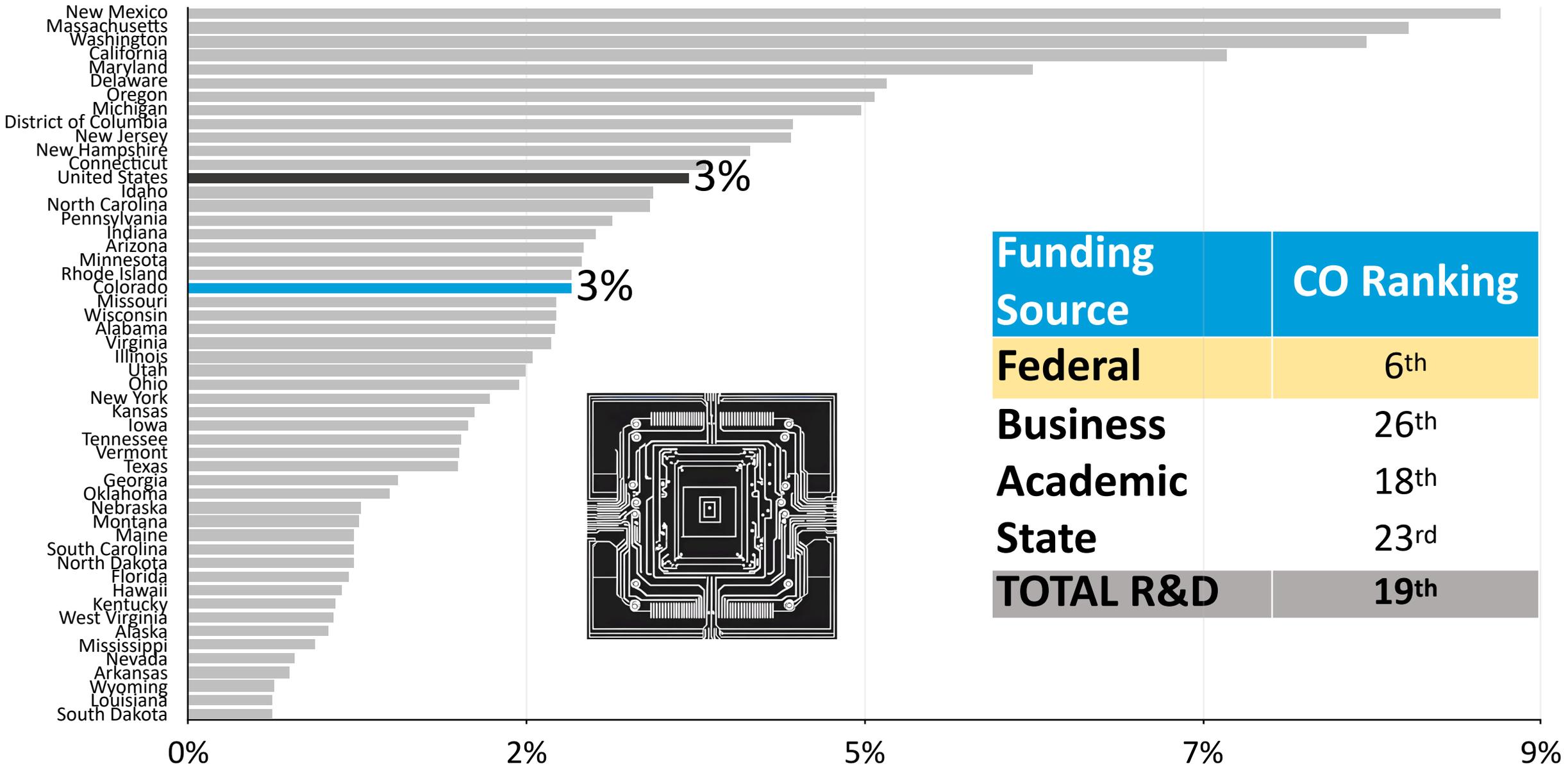


Colorado's migration patterns are shifting...

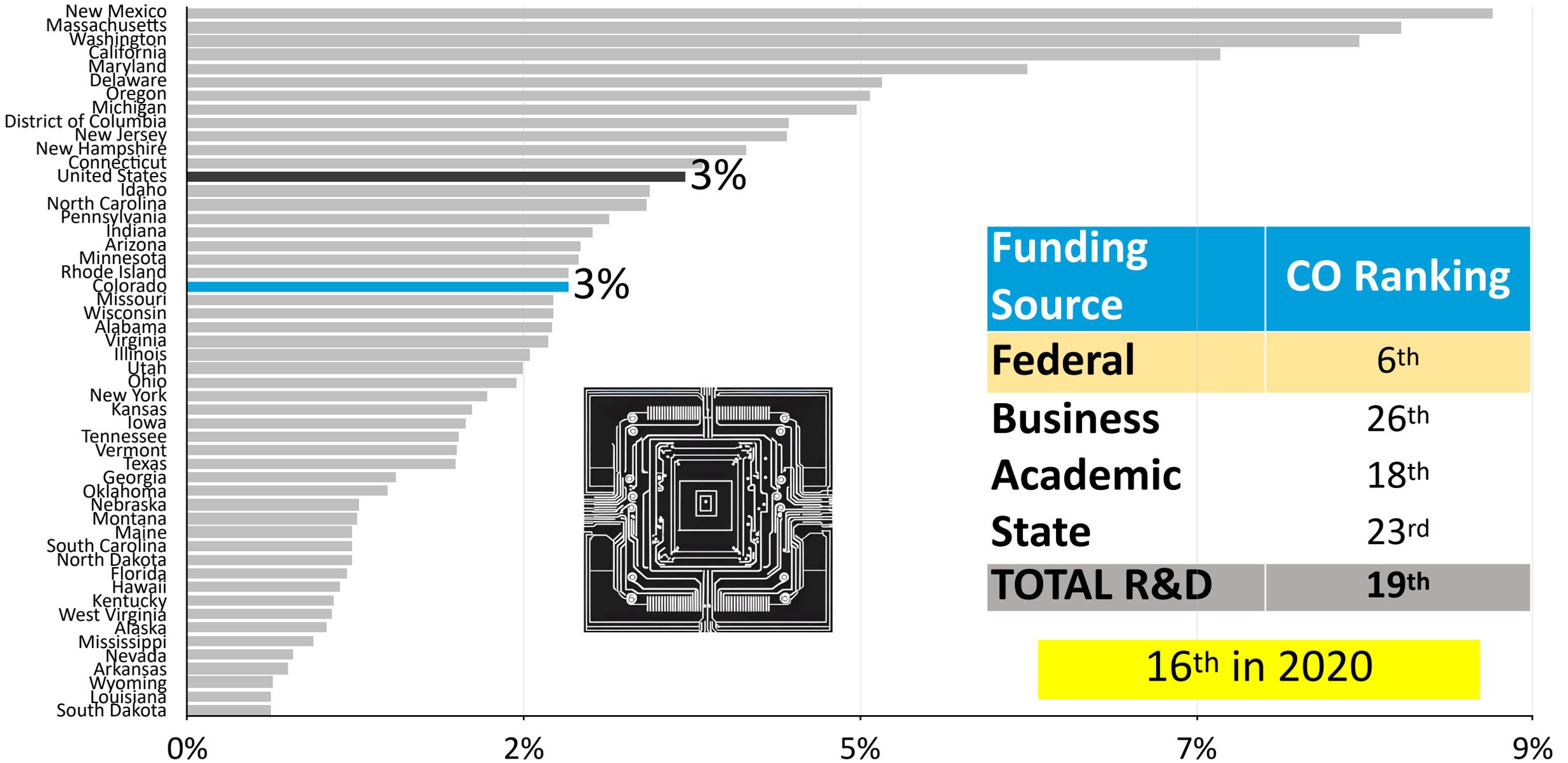
Colorado Net Domestic Taxpayer Migration



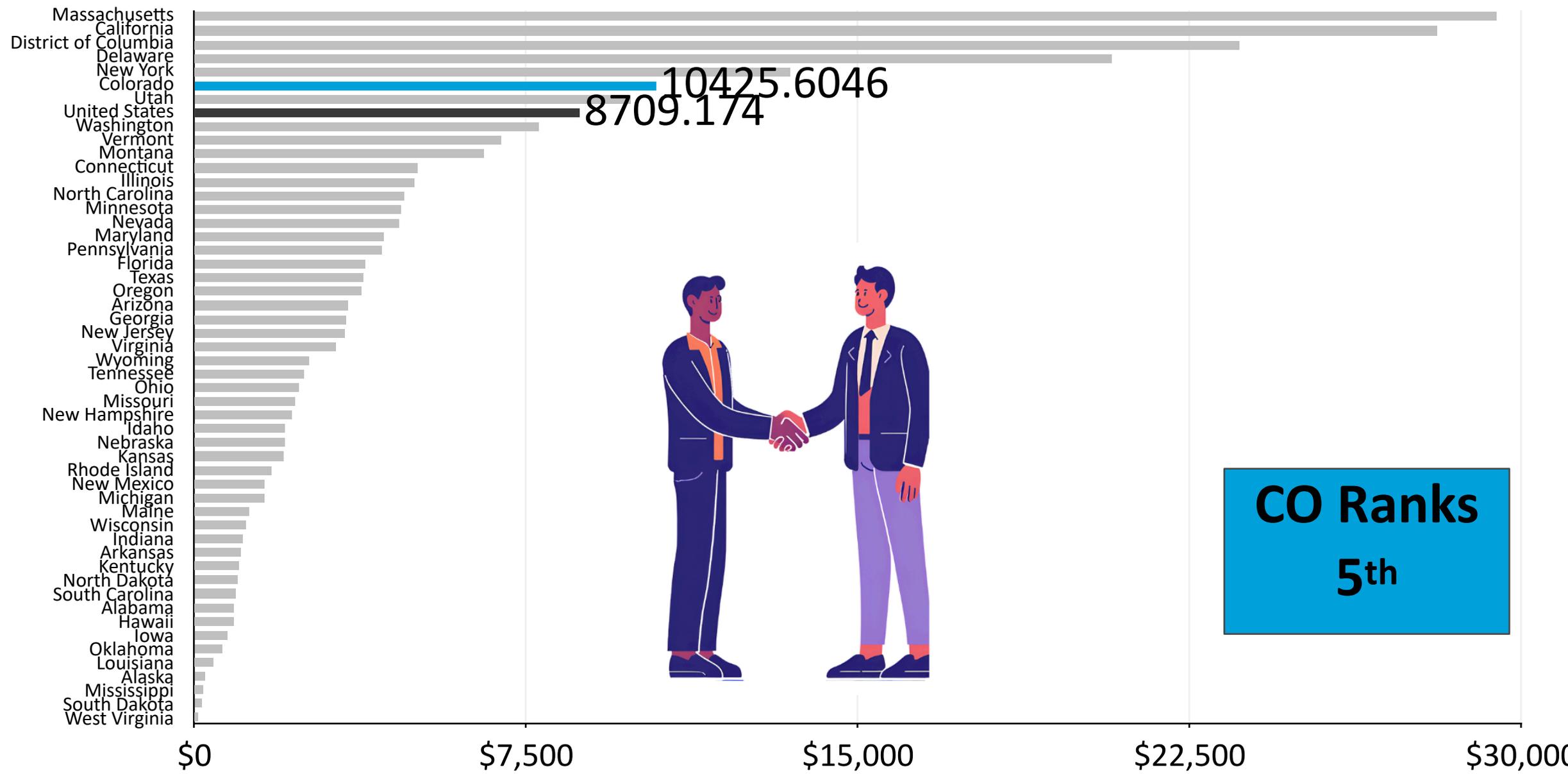
Total R&D as a Percentage of GDP (2021)



Total R&D as a Percentage of GDP (2021)



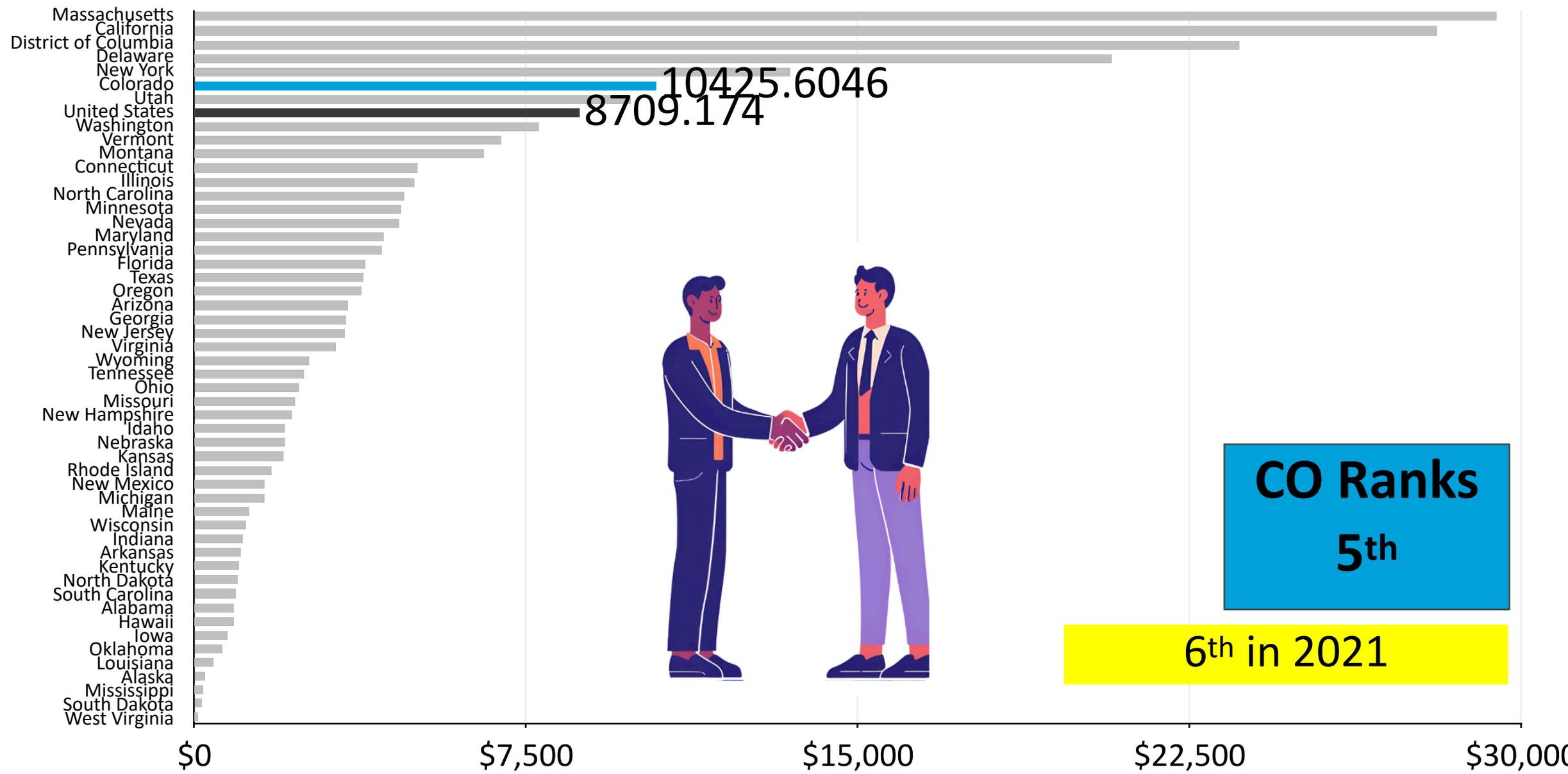
Venture Capital Invested Per \$1 Million of GDP (2018-2023)



**CO Ranks
5th**

Source: EL calculations based on NVCA (2024)

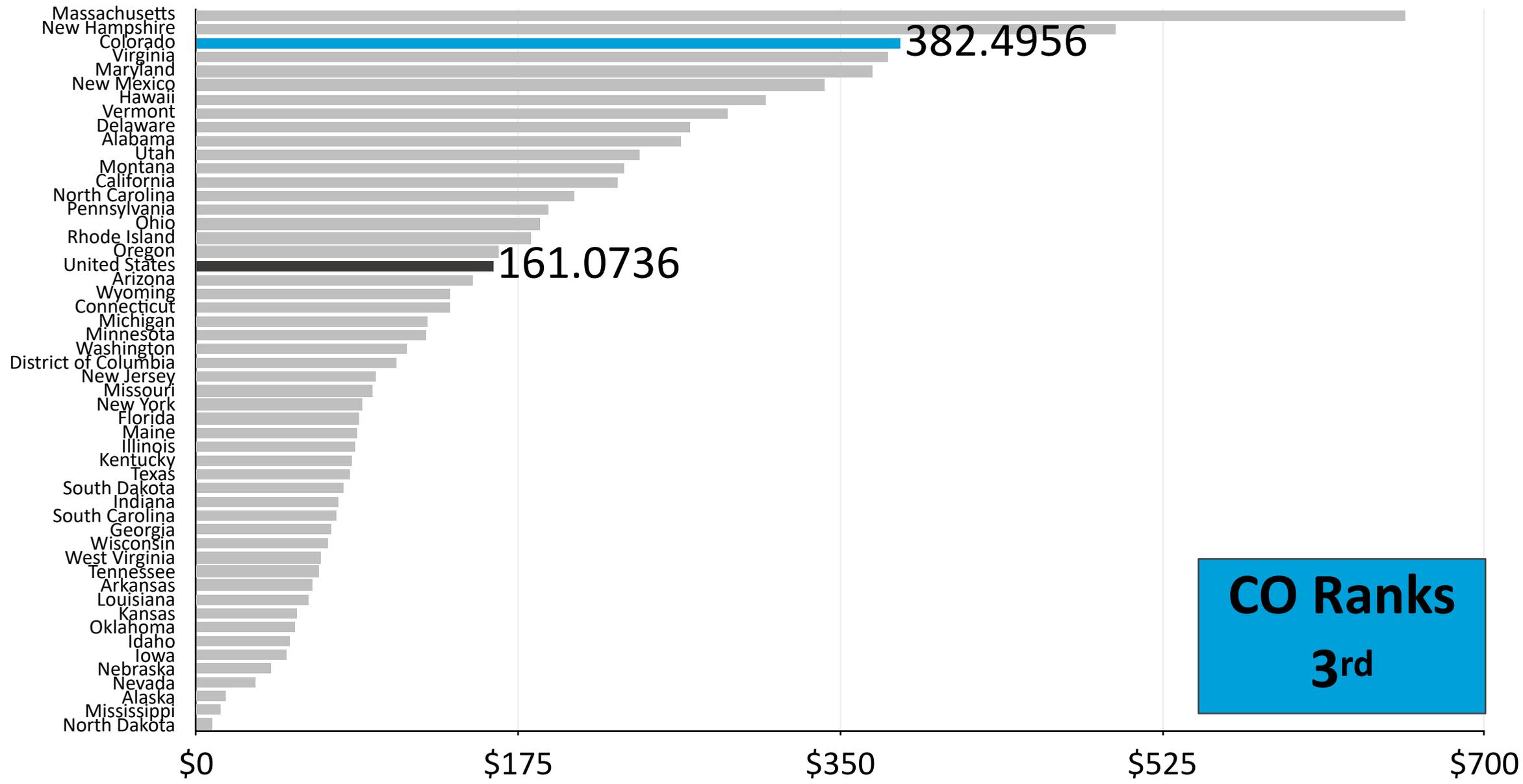
Venture Capital Invested Per \$1 Million of GDP (2018-2023)



**CO Ranks
5th**

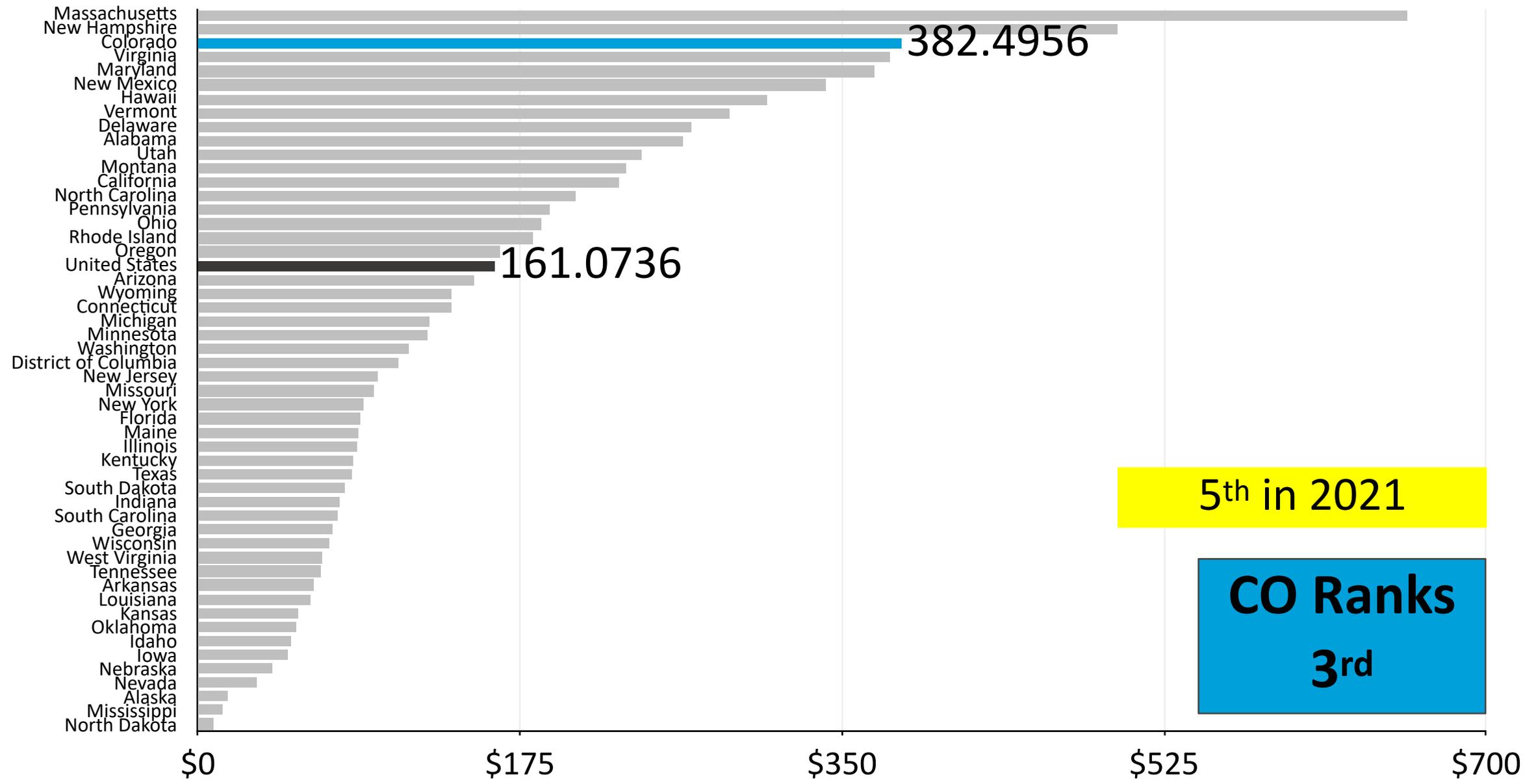
6th in 2021

SBR and STR Funding Per \$1 Million of GDP (2018-2023)



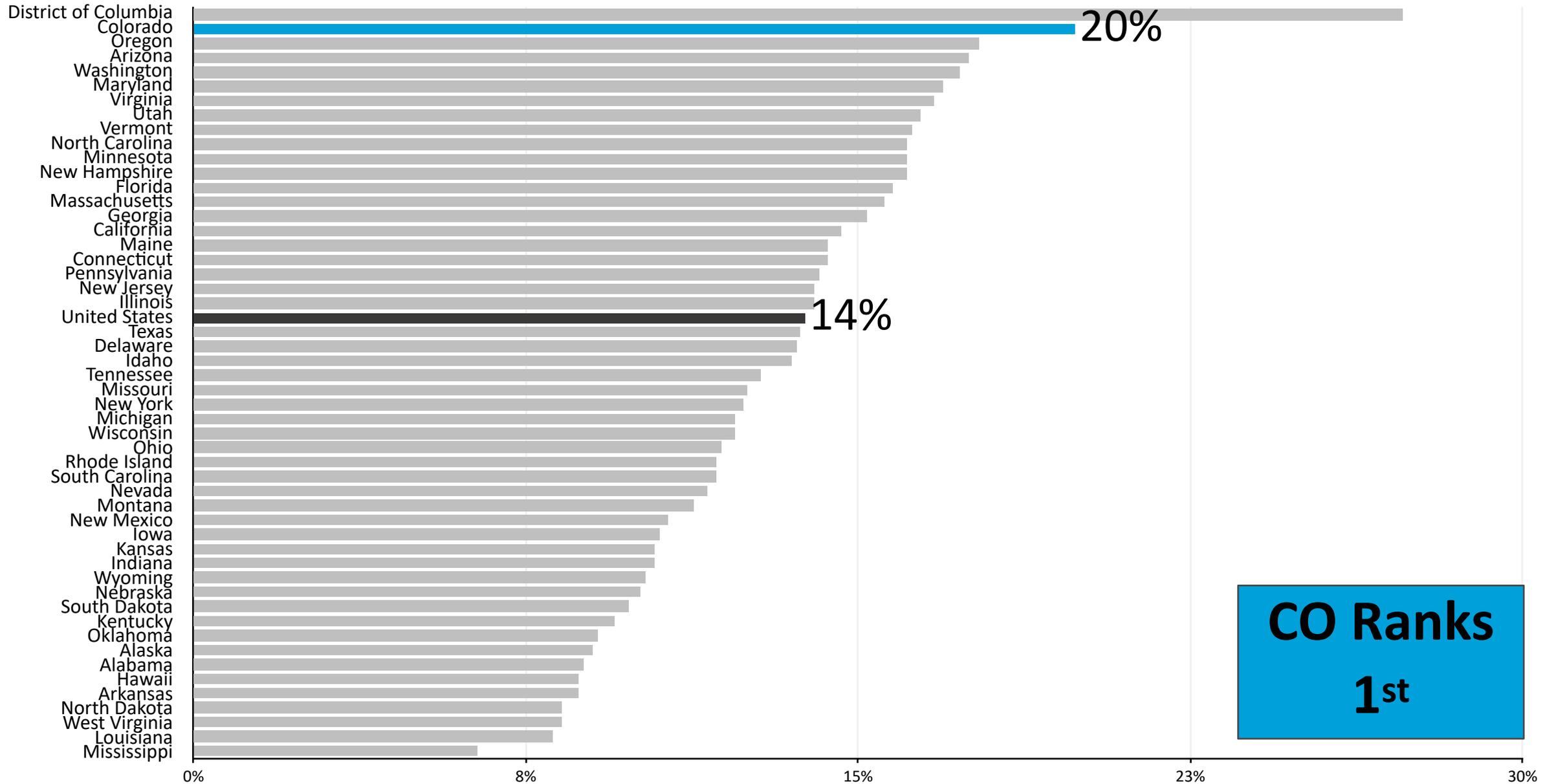
Source: EL calculations based on SBR (2024) and BEA (2024)

SBR and STR Funding Per \$1 Million of GDP (2018-2023)

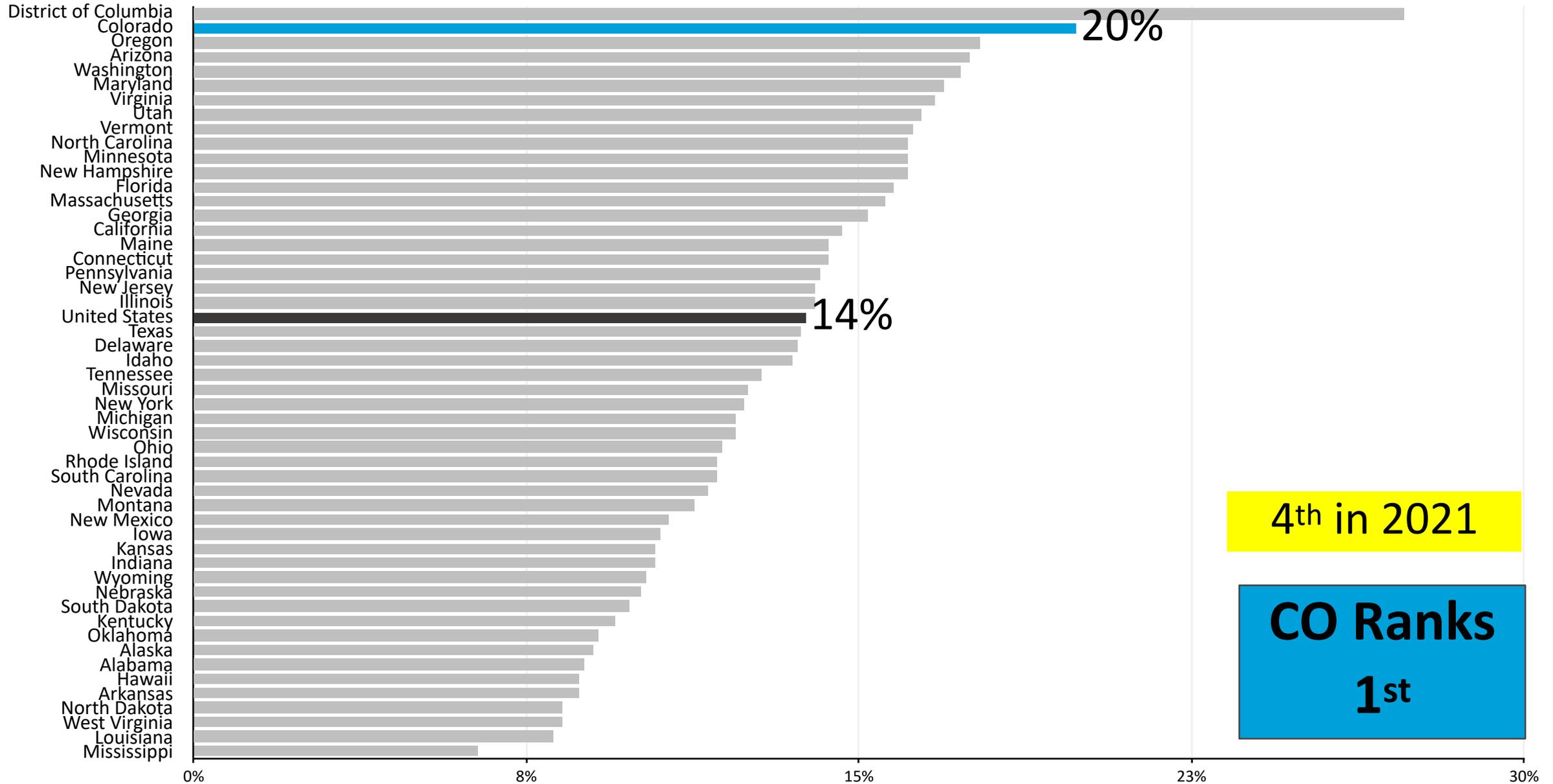


Source: EL calculations based on SBR (2024) and BEA (2024)

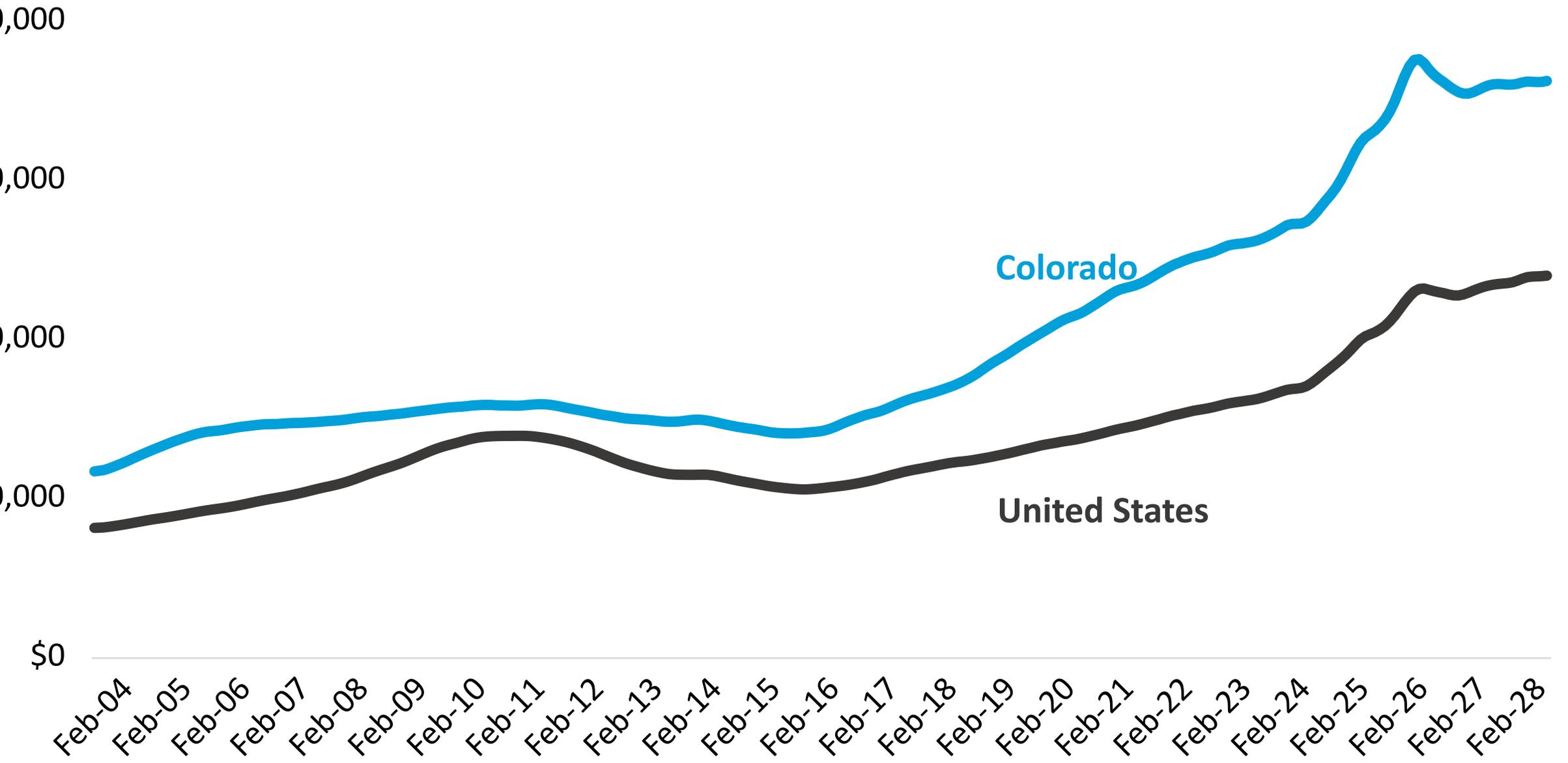
Percentage of Workers Working at Home (2023)



Percentage of Workers Working at Home (2023)

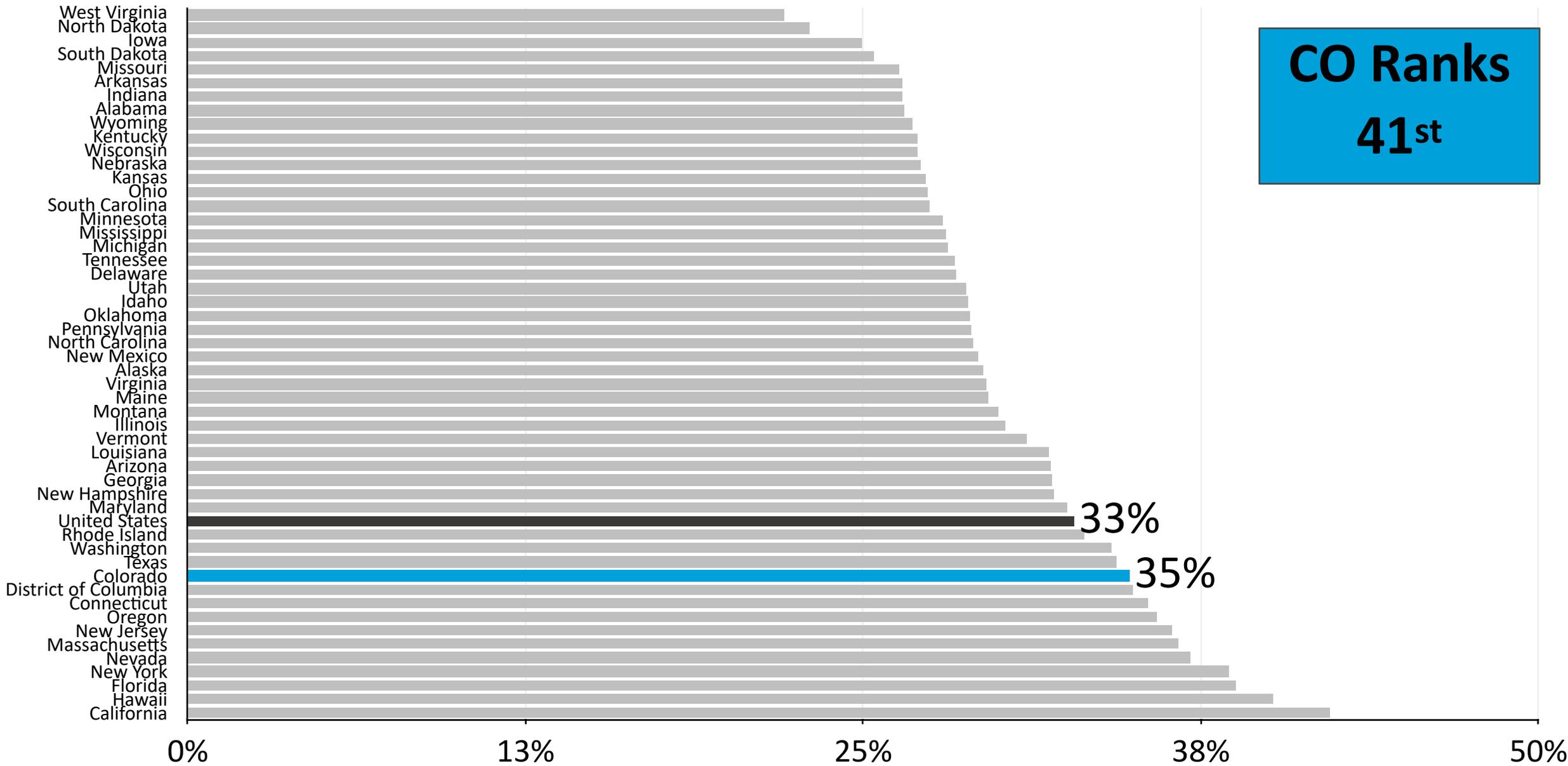


Typical Home Value, Jan 2008 - Sept 2024



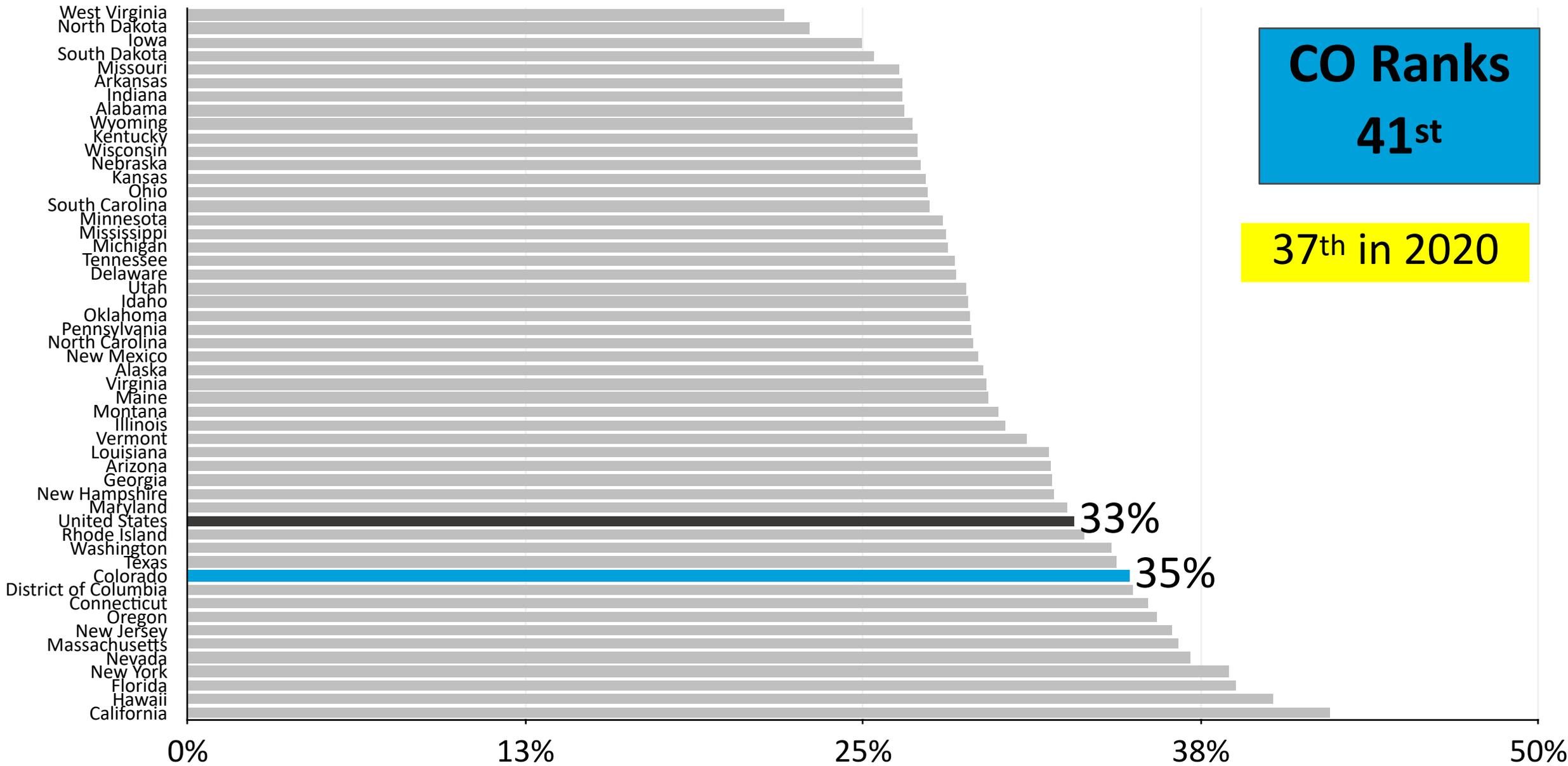
Source: Zillow (2024)

Share of Housing Burdened Households (2023)



CO Ranks
41st

Share of Housing Burdened Households (2023)

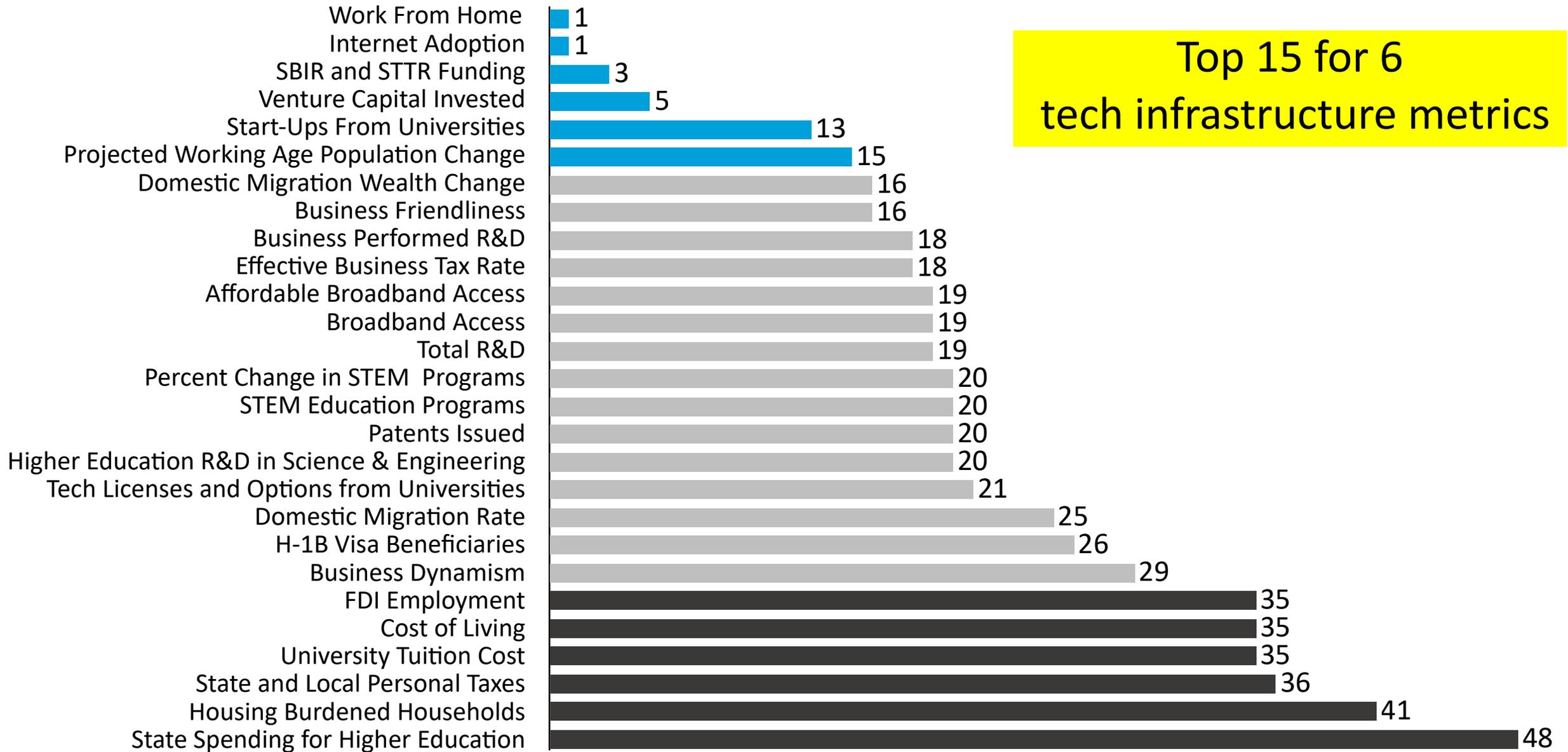


CO Ranks
41st

37th in 2020

Indicators

Top 15 for 6
tech infrastructure metrics



Media Review

1. The Quantum Tech Hub announcement
2. Colorado's population growth and overall workforce growth
3. Academia's role in supporting the technology industry
4. Globally recognized companies/brands elevating the states' visibility
5. Artificial Intelligence regulatory environment

The Forbes logo is displayed in white text on a black rectangular background.

Colorado Takes The Lead In Quantum Technologies



Denver, Boulder are poaching more of California's tech founders, workers and VC billions



TOP STATES FOR BUSINESS

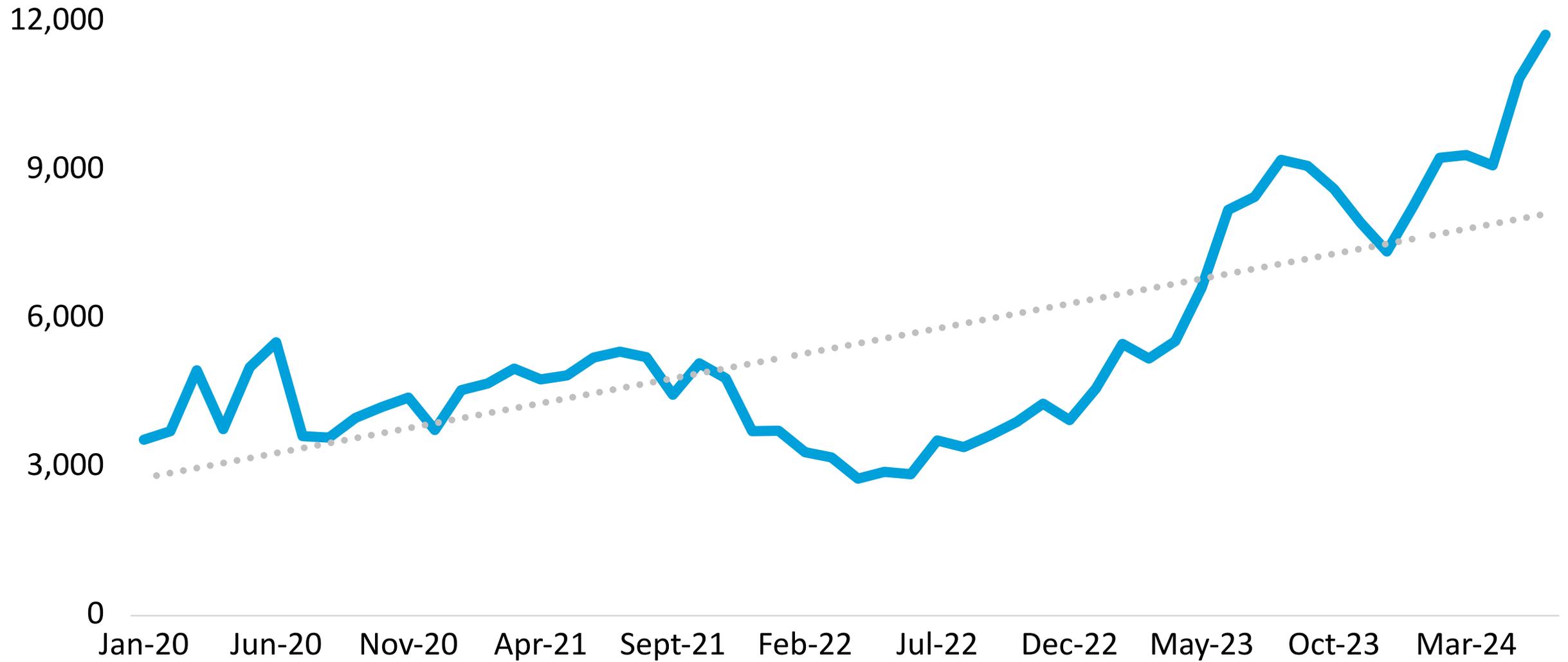
These 10 states are America's best at producing the workers that employers want to hire



ARTIFICIAL INTELLIGENCE

How AI regulation in California, Colorado and beyond could threaten US tech dominance

Colorado Computer & Mathematics Unemployed Workers

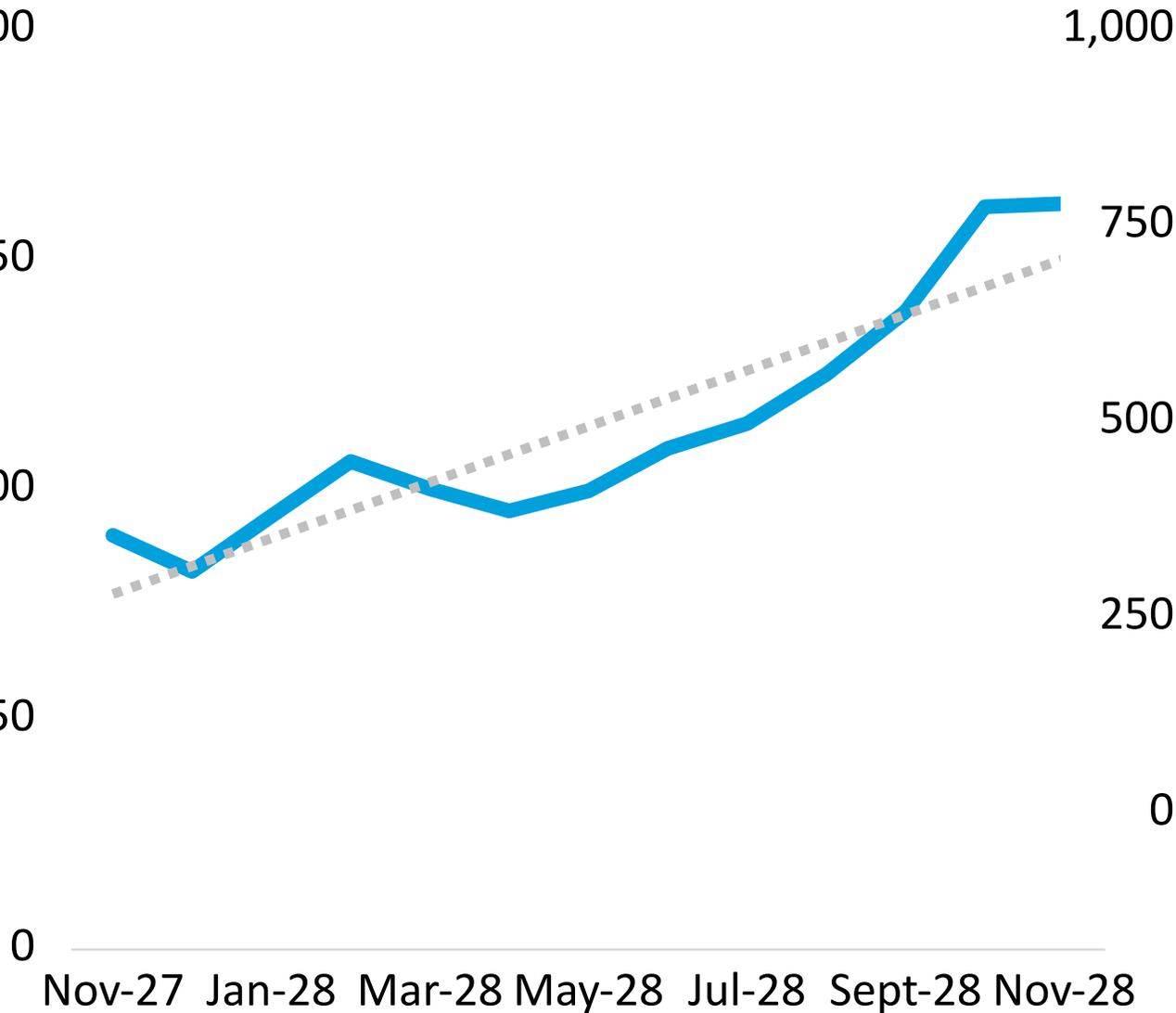


Colorado Computer & Mathematics Unemployed Workers

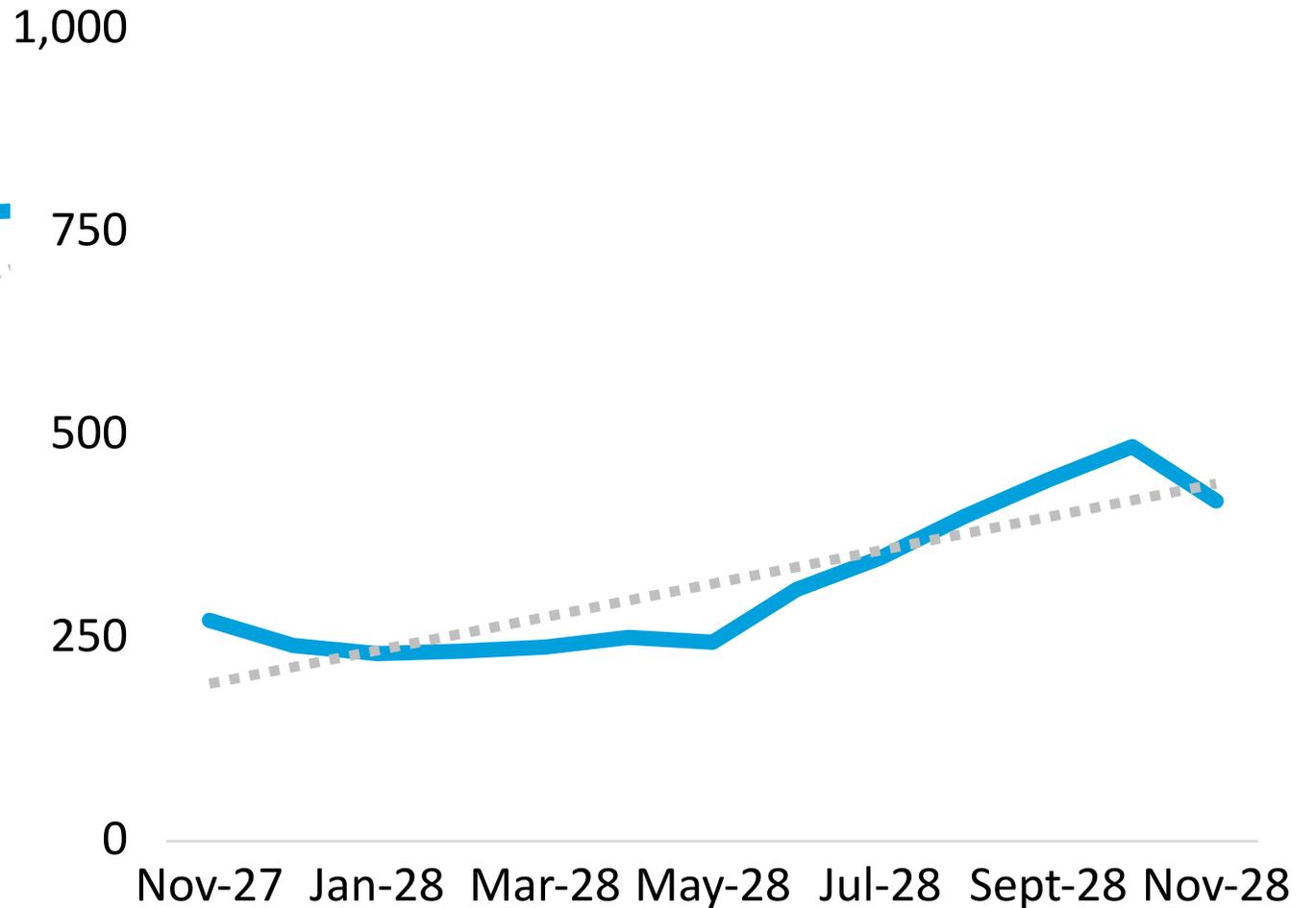


CO Job Postings in Emerging Tech Markets

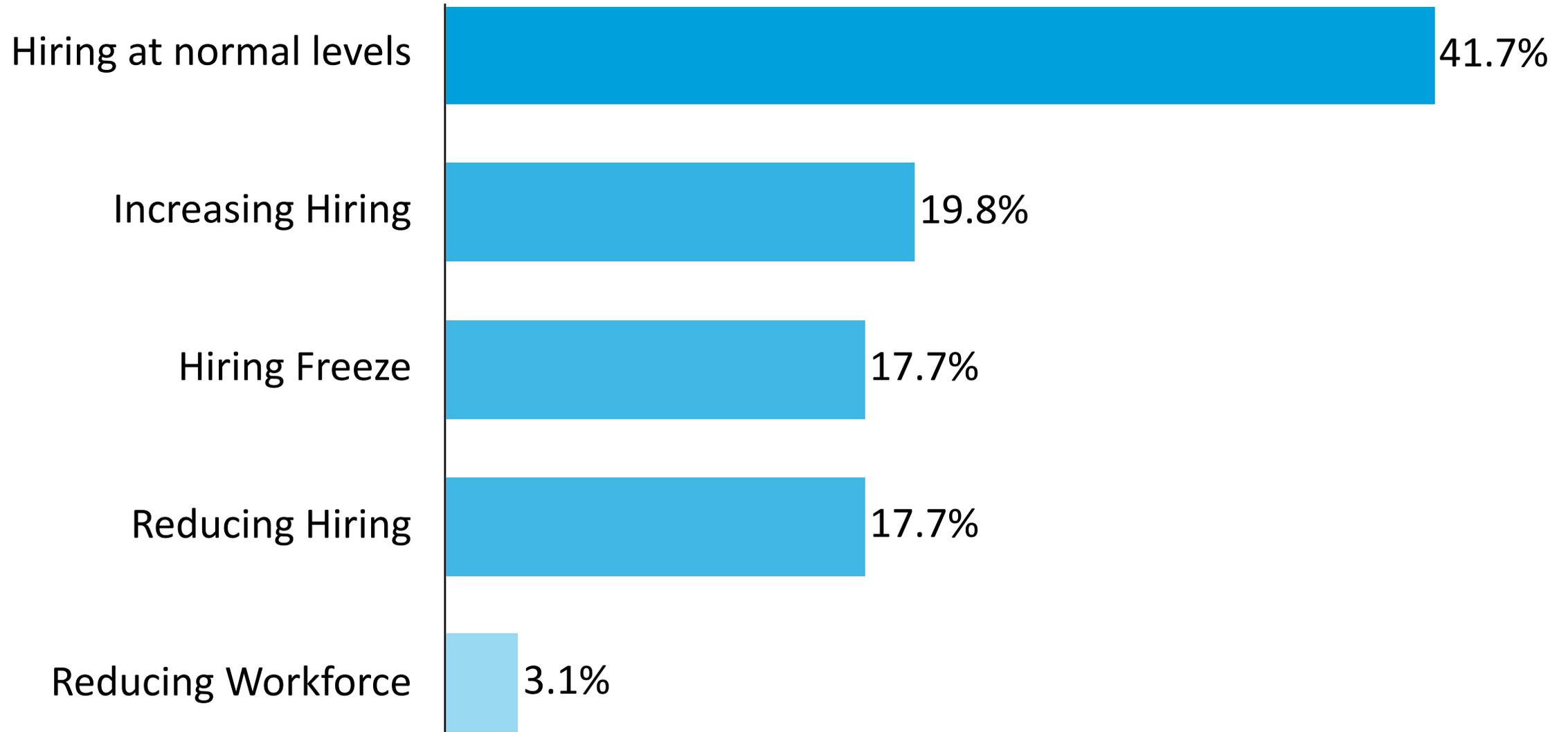
Artificial Intelligence



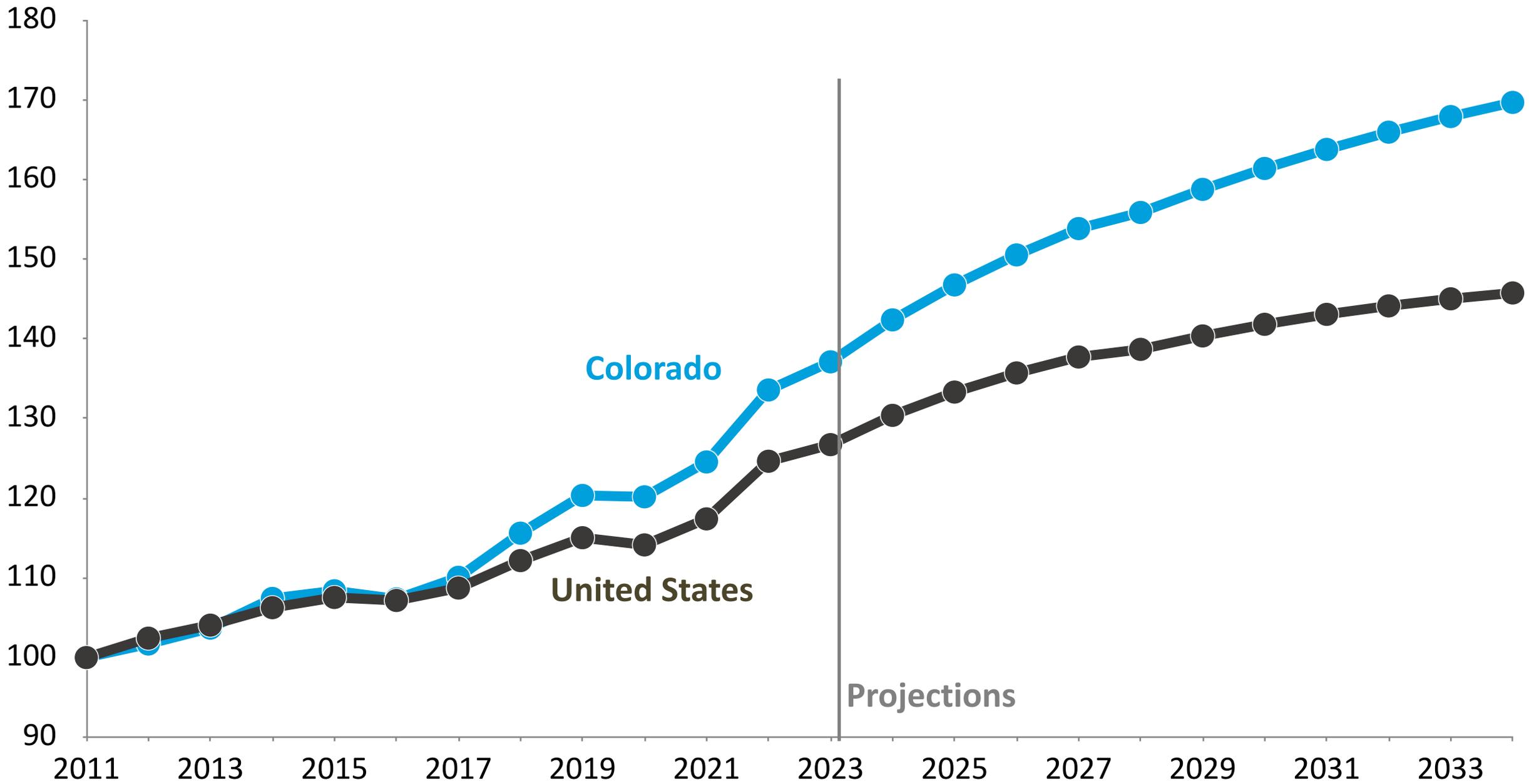
Quantum Computing



Months



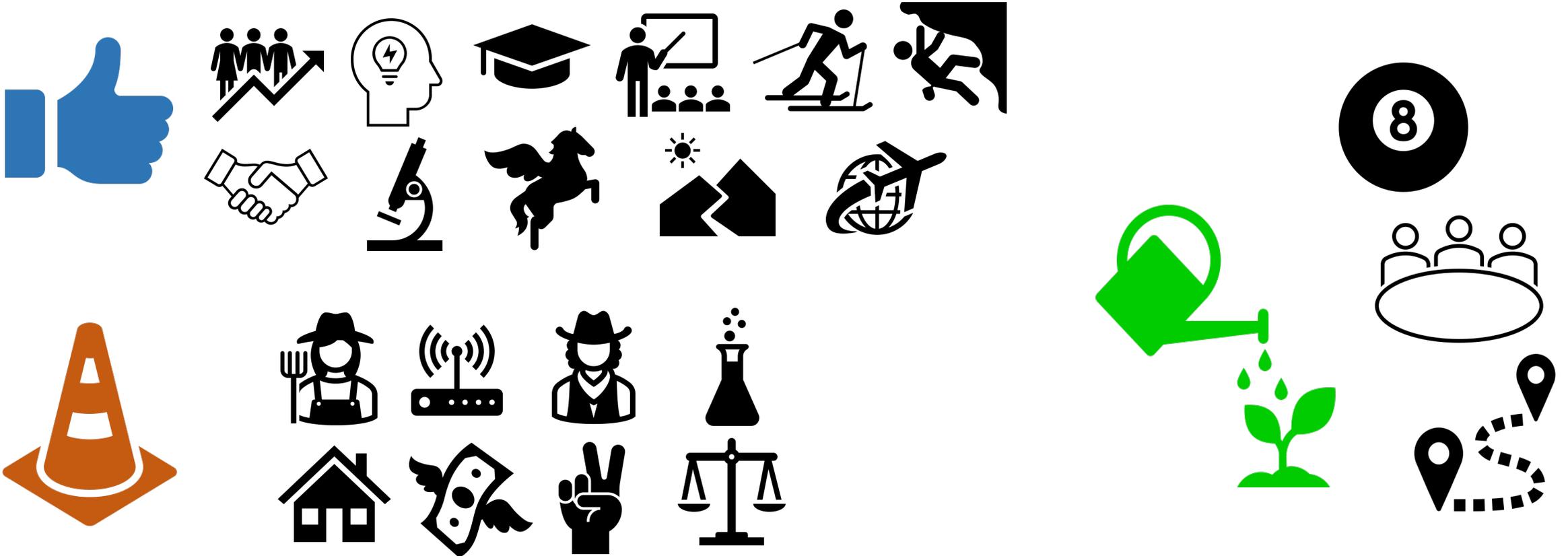
Source: CTA Membership Survey, n=96



FINAL THOUGHTS:

Incredible Assets and Performance...

Be Cautious of Pain Points...





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