

2023 FEDERAL POLICY AGENDA

Currently, the U.S. digital economy accounts for 10.3% of U.S. GDP and eight million jobs, growing each year at more than double the rate of the overall economy. Technology underpins all sectors of our economy, making every enterprise more productive and efficient. It also plays a significant role in protecting our national security by ensuring the U.S. military is technologically superior to our adversaries.

The tech industry advances America's values and interests. In times of crisis, the tech industry steps up with problem-solving skills and resources. Technology kept us all connected and productive during the pandemic and enabled vaccine discovery and distribution. Over the past year, we've seen tech companies stand with Ukraine by keeping their networks and data operational and secure, ending operations in Russia, and donating millions of dollars and goods to help victims and refugees.

But, we can't take America's tech leadership for granted. On March 2, the Australian Strategic Policy Institute published a [report](#) that shows **China has taken the lead over the U.S. in 37 of 44 technologies** examined, across the sectors of defense, robotics, energy, environment, biotechnology, space, artificial intelligence, advanced materials and quantum computing technology. In the long term, China's leading research position means that it has set itself up to excel not just in current technological development in almost all sectors, but in future technologies that don't yet exist.

Winning the Next Era of Innovation

Fully Fund America's New Tech Hubs

The previous Congress laid the foundation for the next era of innovation with the passage of the *CHIPS and Science Act*, which invests in our leadership in science, research, and manufacturing and will build U.S. global centers of excellence for emerging technologies to compete with China. Congress must finish the job by funding the heart of the *CHIPS and Science Act*, the Regional Technology and Innovation Hubs Program, which will ensure emerging technologies like 5G, quantum computing, AI, and autonomous vehicles are developed and deployed in this country, with the U.S. setting the rules of use.

Invest in America's STEM Talent Pipeline

The United States faces a STEM talent pipeline crisis that threatens our economy and national security. Congress must fully fund the authorized, but not yet funded, STEM and workforce training programs in the *CHIPS and Science Act* to address the growing skills gap and counter investments made by China by educating students to fill the technology-enabled jobs of the future while training adults to fill vacancies we face today.

Win the Race for Global Talent

Robust investments in the U.S. STEM talent pipeline won't address the skills gap in the short term. U.S. semiconductor manufacturers have cited a severe shortage of engineers and technicians as their greatest obstacle. They need at least 50,000 new semiconductor engineers over the next five years and 90,000 skilled technicians by 2030 to staff all of the new factories and research labs that companies have said they plan to build with *CHIPS and Science Act* subsidies, numbers far exceeding current graduation rates nationwide. Congress must find common ground on high-skilled immigration and border reform and reduce critical STEM talent shortages by recapturing unused visas, exempting advanced graduates in STEM fields from green card caps, and eliminating outdated and arbitrary per-country caps on green cards that no longer track to economic need.

Unleash America's Mobility Future

Electric Vehicles (EVs) and Autonomous Vehicles (AVs) are the defining mobility innovations of this and the next generation. These technologies will revolutionize how Americans travel and make our roadways cleaner, safer, and more accessible. The U.S. auto industry represents over 10 million American workers and more than 3.5% of the national GDP. Congress should pass a uniform national framework that promotes the safe testing, deployment, and operation of AVs through clarifying federal and state roles, expanded exemptions, and expedited rulemaking. Congress should also expand the Section 30D tax credit's free-trade agreement country requirement for minerals and battery sourcing to include key allied nations to support the critical supply chains needed to accelerate domestic EV deployment.

- If left unaddressed, the talent shortage of workers with a post-secondary degree will result in more than 9 million job vacancies and \$1.2 trillion in lost production over the next decade. ([TechNet](#), 2021)
- 16% of all U.S. STEM field graduates are foreign-born. Ensuring they are able to stay and work in this country could reduce STEM-related talent shortages by about 25% and add up to \$233 billion to the U.S. economy this decade. ([National Center for Education Statistics, 2020](#); [fwd.us](#), 2022)
- By 2025, Chinese universities will produce more than 77,000 STEM PhD graduates per year compared to approximately 40,000 produced in the United States. If international students are excluded from the U.S. count, Chinese STEM PhD graduates would outnumber their U.S. counterparts by more than three to one. ([Center for Security and Emerging Technology](#), 2021)
- The world's top automakers plan to spend nearly \$1.2 trillion through 2030 to develop and produce roughly 54 million electric vehicles, which is twice the estimated industry investment from 2021. ([Reuters](#), 2022)
- Requiring certain R&D expenditures to be amortized is estimated to reduce U.S. R&D spending by \$4.1 billion annually in the first five years and \$10.1 billion annually in the second five years and beyond. ([EY](#), 2019)

- In 2022, cyberattacks grew by 38% globally and by 57% in the U.S. ([Check Point Research, 2023](#))
- As of 2022, there are 755,743 unfilled cybersecurity positions, compared to a total cybersecurity workforce of 1,112,410. ([CyberSeek, 2022](#)).
- In a 2022 survey, 67% of respondents representing online sellers said the new 1099-K reporting requirement will cause confusion as to what income from online sales should be reported to the IRS. 69% of respondents said they were likely to stop selling online or sell less online based on the new requirements. ([Coalition for 1099-K Fairness, 2022](#))
- Three out of four C-suite executives believe that if they don't scale artificial intelligence (AI) in the next five years, they risk going out of business entirely. ([Accenture, 2019](#))
- 65% of Americans believe the U.S. should do more on climate. ([Pew Research, 2020](#))
- The continued growth of the gig economy has created income opportunities in virtually every corner of the country, allowing people to work independently and on preferred discretionary schedules, expand their businesses, and provide for themselves and their families with greater flexibility. Widespread reclassification could destroy as many as 769,000 work opportunities and wipe out \$9.1 billion in earnings nationally. ([Chamber of Progress, 2022](#))
- A 50-state privacy patchwork would cost our economy more than \$1 trillion over 10 years, with \$200 billion being paid by America's small businesses. ([Information Technology & Innovation Foundation, 2022](#))

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Strengthen Cybersecurity

Our foreign adversaries, including China and Russia, are well-resourced and highly motivated to steal our data and trade secrets and disrupt critical infrastructure using the most sophisticated cyber weapons. Congress should pass legislation to educate and train a highly-skilled workforce, modernize government IT, and build long-lasting public-private partnerships to share the latest in threat information with American companies in real time. In addition, Congress should build on previous investments in cybersecurity resiliency from the FY24 NDAA to ensure our nation's critical infrastructure is safeguarded from cyberattacks.

Protect U.S. Technology Leadership

U.S. technology companies are shaping the future of innovation in the 21st century. As foreign technology regulators attempt to impose barriers and burdensome regulations targeting leading U.S. tech companies, American policymakers must ensure that proposals do not harm consumers, weaken our national security and global competitiveness by solely targeting American companies, or disrupt the tech ecosystem that small and medium-sized companies utilize to reach their customers.

Embrace Artificial Intelligence & Promote Responsible Innovation

Artificial intelligence (AI) and machine learning (ML) are crucial to maintaining America's competitive advantage. AI and ML are increasing productivity, democratizing and expanding access to important services, and enhancing product innovation. TechNet supports voluntary government guidelines that establish consensus standards and outline a comprehensive approach to AI, limit regulatory overreach, and promote trustworthiness within technology. AI innovation should be embraced, but it must be developed and implemented responsibly.

Fix Laws That Stifle Innovation

Recent changes in federal tax law threaten to stifle U.S. innovation right when we need to incentivize more R&D and foster a thriving digital economy. Congress should allow R&D tax deductions in the same year an expenditure is made rather than amortizing it over five years. Congress must increase the 1099-K reporting threshold this year, which will impact millions of Americans, such as casual sellers utilizing online marketplaces.

Fight Climate Change

Addressing climate change is one of the most pressing global issues of our time. Innovative action is required by the government, the private sector, and consumers alike to build a cleaner and more sustainable future for our planet. TechNet supports the federal government's goal of limiting warming to no more than 1.5 degrees Celsius by the year 2050, the swift implementation of clean energy investments passed by the 117th Congress, and the rapid transition of our nation's transportation fleet to renewable and sustainable energies.

Support the Workforce of Tomorrow

The continued growth of the gig and sharing economy has created income opportunities in virtually every corner of the country, allowing more than 58 million Americans to work independently and on preferred discretionary schedules, run their own businesses, and provide for their families while being their own boss. Congress should pass legislation, such as the bipartisan *Workforce Choice and Flexibility Act*, to allow businesses to offer workplace benefits without undermining the flexibility of independent work for students, parents, caregivers, small entrepreneurs, veterans, and retirees. Similarly, hybrid and remote work have created inclusive economic opportunities, particularly for caretakers, the disabled, and those without access to major economic centers. Congress should establish a predictable labor and tax legal framework to reflect the permanence of fully remote and hybrid work across industries.

Pass a Federal Data Privacy Law

Congress should pass a bipartisan federal privacy law. Since 2018, 178 privacy bills have been introduced in 45 states. This year alone, 27 states have introduced 55 comprehensive privacy bills. By the end of 2023, consumers in California, Colorado, Connecticut, Iowa, Utah, and Virginia will all be regulated by different privacy laws. This growing patchwork is confusing consumers and having a chilling effect on our economy, especially for small businesses.