Silicon Valley Meets Apec 2025

BAYAREA COUNCIL ECONOMIC INSTITUTE

Innovation, Adoption, and the Governance of Artificial Intelligence: A Silicon Valley Perspective

October 2025

Introduction

Artificial Intelligence (AI) is a defining technology of the 21st Century. Like the digital revolution on which it builds, AI will over time impact every industry, the competitiveness of both large and small companies, the provision of government services, and the personal lives of billions of people across the planet through health and other outcomes. How it is developed, deployed and governed is a matter of growing consequence for large and small businesses, private individuals, and their governments.

This paper provides a perspective on these questions from the San Francisco/Silicon Valley Bay Area, ground zero for the global AI revolution. It builds on the insights gained from four forums organized by the Bay Area Council in 2024 and 2025 - programs that brought together experts from leading technology companies such as Anthropic, Salesforce, LinkedIn, Google and Microsoft; California and global government leaders; experts in cybersecurity; and leaders in workforce development - to share their views on AI's present and its future. Discussions centered on the impacts of AI and in particular on innovation, regulation, and the optimal balance between the two. In other words, how can AI's benefits be accelerated through innovation even as governments and their partners in the private sector address the downside risks. Like the industry itself, the answers are evolving.

Executive Summary

Companies and governments stand to reap large efficiency and productivity gains from AI. Innovation in scientific research, particularly in medicine and life science, will accelerate.

Technological revolutions also bring significant disruptions, particularly in employment. The changes stemming from AI are occurring in both tech and non-tech companies. Even as AI is eroding headcount in tech companies it is creating new opportunities and rewards for workers in traditional business roles who have AI skills.

Analysis by LinkedIn suggests the outline of the changes that are underway are accelerating. AI accounts for 3 out of the top 15 fastest growing jobs in the US, including such positions as Artificial Intelligence Engineer, Artificial Intelligence Consultant, and Artificial Intelligence Researcher. The number of companies with a "Head of AI" position has tripled in the past 5 years.

Some jobs are insulated and have low exposure to Generative AI, while others have high exposure to GenAI but can be supported (augmented) by AI. A third category of jobs that requires little human interaction is highly vulnerable to disruption. No occupations are likely to disappear overnight, and so far LinkedIn data finds no clear evidence that AI is causing net unemployment.

AI literacy is the fastest growing skill appearing on LinkedIn's platform, with changes coming mainly in two areas: 1) the ability to use AI tools, and 2) people skills (soft skills). Employers are starting to require AI literacy for nearly every role, but there is also increased demand for employees with people skills. As use of the technology grows, people skills will grow in importance. These include, for example, creativity, curiosity, problem solving, and conflict mitigation skills.

California offers examples of how governments, often in partnership with industry, are driving AI skills development and deployment. Public-private partnerships are playing a key role. These initiatives reflect a recognition in both

California's government and businesses that while AI will be disruptive it presents larger opportunities; that AI skills are becoming a necessity in the workforce; that advanced AI skills will bring a hiring premium; and that the speed and success of AI's adoption will impact the quality and efficiency of government services and the competitiveness of companies across a broad range of industries.

AI is also changing the playing field in cybersecurity. AI is changing the types of threats that systems administrators and end users need to anticipate and process, but it also puts new defensive tools in their hands. The complexity that this creates requires collaborative governance and real-time scenario planning that engages policy makers, industry, and academia.

At a high level this presents a choice for businesses and policymakers: should they focus on high probability but low impact risks, on low impact but high probability risks? For governments, reaching the right answers will require the right regulatory focus. The EU's AI Act, for example, relies heavily on the technical specifications of large language models and less on the behavioral context of how AI is used. AI-related risks are primarily behavioral, however, and regulation will be more effective if it focuses primarily on risk-based behavior rather than the technical oversight of models.

Universities have an important role to play in Cyber-AI skills development. Programs should include internships and mentorship opportunities in industry for students, and sabbaticals in the private sector for faculty. In the private sector, cyber-AI literacy needs to be part of executive leadership training.

Due largely to geopolitical tensions, progress in addressing AI and cybersecurity issues at a global level – in Geneva or at the UN - has been slow. Alternative and faster-moving pathways include using technical standards bodies like NIST and ISO to shape cybersecurity practices and craft consensus standards. We can also use regional and industry-based initiatives to address this issue – which may be more flexible and effective than treaty-based diplomacy. It is important that industry be invited to contribute it expertise to these multistakeholder forums. All countries, including the Global South, need to participate in and benefit from the standards-setting process.

The governance of AI to ensure safe and responsible use is complicated, in part because AI is an evolving technology. At the moment we don't have a common vocabulary, much less interoperability between regulatory systems. In the near term the development of that shared language is more likely to come out of conversations in forums among stakeholders than from decisions by international institutions.

It's important to produce an environment that enables regulatory interoperability in the U.S. and globally, as regulatory strategies and fragmented approaches can affect both AI companies and markets. California's government has adopted a regulatory strategy that weighs on the side of innovation, accelerated adoption, and enabling the industry's growth, while recognizing the need for guardrails and the regulation of use cases – essentially a risk- based approach. There is general agreement that the most effective regulatory strategy will be one where the primary focus is less on the base technology than on how it is applied. Governments tend to focus on models and on intervention in how they are developed, but the answers to current concerns will come more from how AI models are used. Because all problems can't be solved at the model level it's important to closely look at use cases, where harm is occurring, and its context.

As indicated in its recent report Navigating Artificial Intelligence Landscape in APEC: Balancing Development and Oversight, APEC economies are taking varied approaches to the topic of regulations and risk management, with notable differences in implementation and regulatory scope. APEC can play a useful role in coordinating regulatory approaches and supporting innovative AI development across the region, particularly with regard to the development of best practices and interoperable legal and policy frameworks. San Francisco/Silicon Valley Bay Area companies and organizations are prepared to be active partners.

San Francisco and Silicon Valley: the Heart of AI

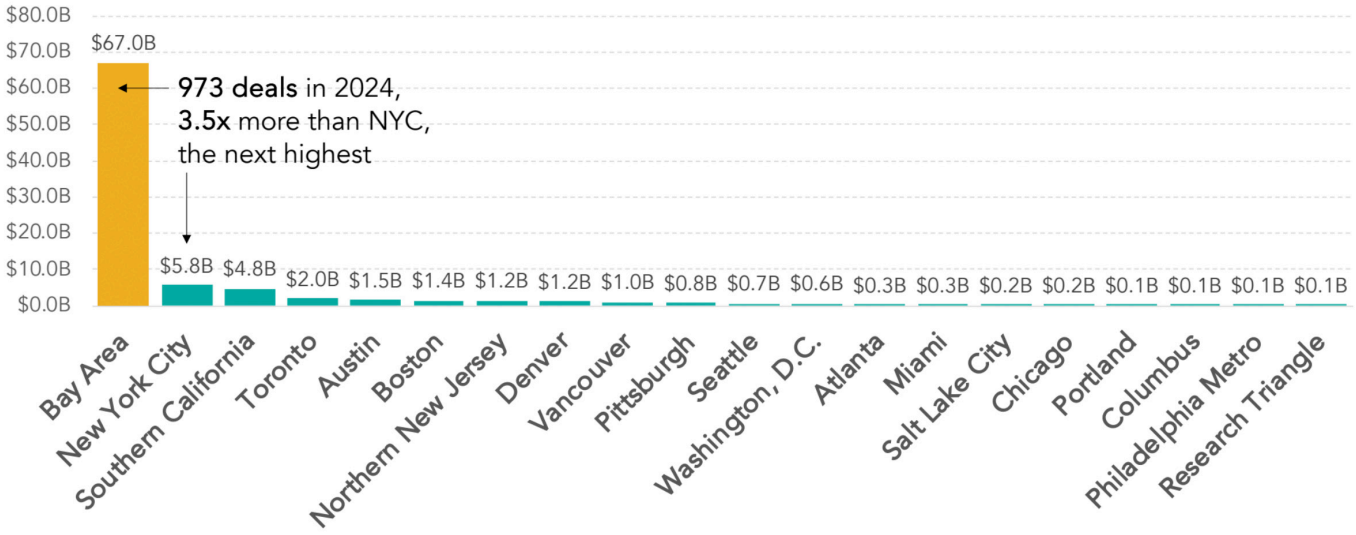
Silicon Valley's geography as a region has no precise definition but broadly encompasses the area extending from the city of San Jose in the South to San Francisco in the North, a distance of approximately 60 miles that incorporates tech centers such as Santa Clara (Nvidia), Cupertino (Apple), Sunnyvale (LinkedIn), Mountain View (Google), Palo Alto (Stanford University), Menlo Park (Meta Platforms), and Redwood City (Oracle). San Jose is home to industry leaders such as Cisco, while San Francisco is the headquarters for companies such as Salesforce, Autodesk, and Airbnb. The region as a whole hosts the world's largest venture capital cluster, which consistently attracts between 30% and currently 60% of annual venture investment in the United States.

Silicon Valley is also noted for its ability to produce technological leaps: successive technological waves (integrated circuits, semiconductors, personal computers, social media, cloud computing) that create new industries and disrupt old ones. AI represents Silicon Valley's next technological leap. In 2024 Bay Area companies attracted 76% of all U.S. AI funding, and more than half of the world's leading generative AI companies are based in the region. Talent intensity is high, as per capita AI job postings in the region exceed postings in the next 13 largest metropolitan regions in the United States combined

This activity spans the full business stack from hardware (Nvidia, AMD, Intel) to foundational models (OpenAI, Anthropic, xAI), data intelligence and applications development (Databricks, ScaleAI), and companies producing industry-specific products.

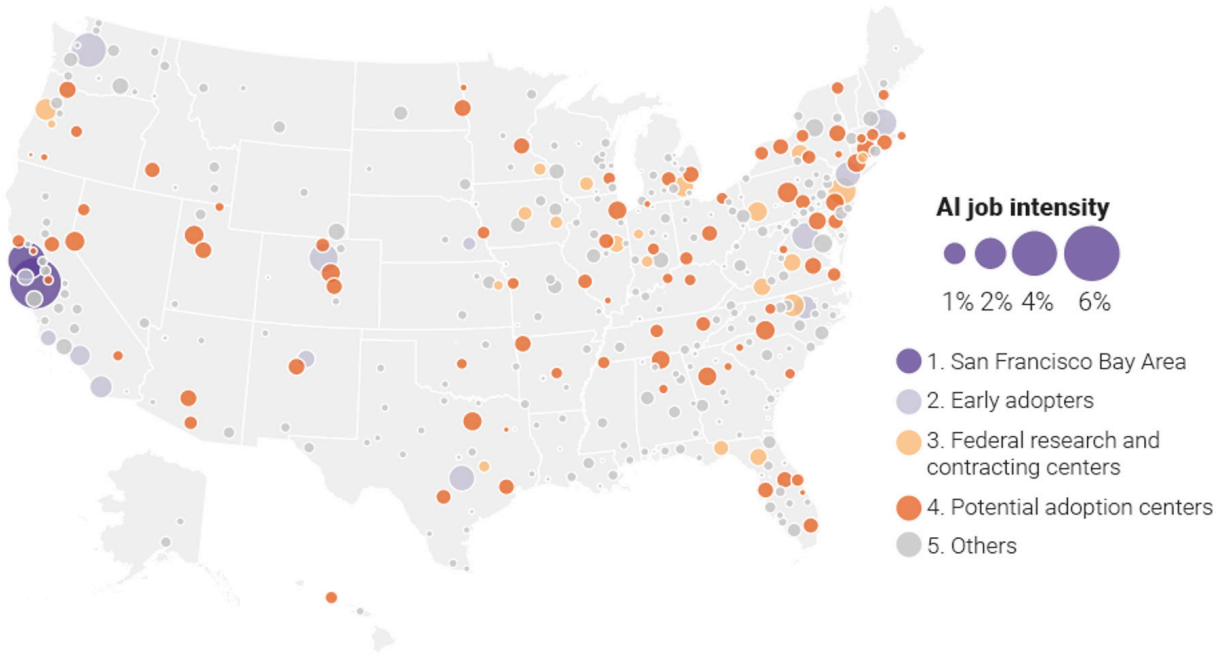
Bay Area AI companies attracted 76% of U.S. AI funding and more the half of the top 100 generative AI companies on the globe are based in the Bay Area

Funding to AI Startups in 2024



Source: Crunchbase **Analysis:** Bay Area Council Economic Institute

Per capita, San Jose and San Francisco alone have about four times more AI job postings compared to the next 13 U.S. metro areas in 2023



Source: Brookings' analysis of Stanford HAI, Crunchbase, STAR METRICS, USPTO, and Emsi data

Seizing the AI Opportunity

"Companies, governments and science stand to reap large efficiency and productivity gains through AI-enabled innovation."

Companies and governments stand to reap large efficiency and productivity gains from AI. In Silicon Valley, for example, the city of San Jose is using AI traffic signaling to give priority to buses, cutting their travel times by 20%, and has increased the number of Spanish-language viewers of City Hall proceedings through AI-enabled translation. In another local example, a freight broker is using AI to automate rate quotes, matching trucks and cargo, increasing both its responsiveness and its profitability.

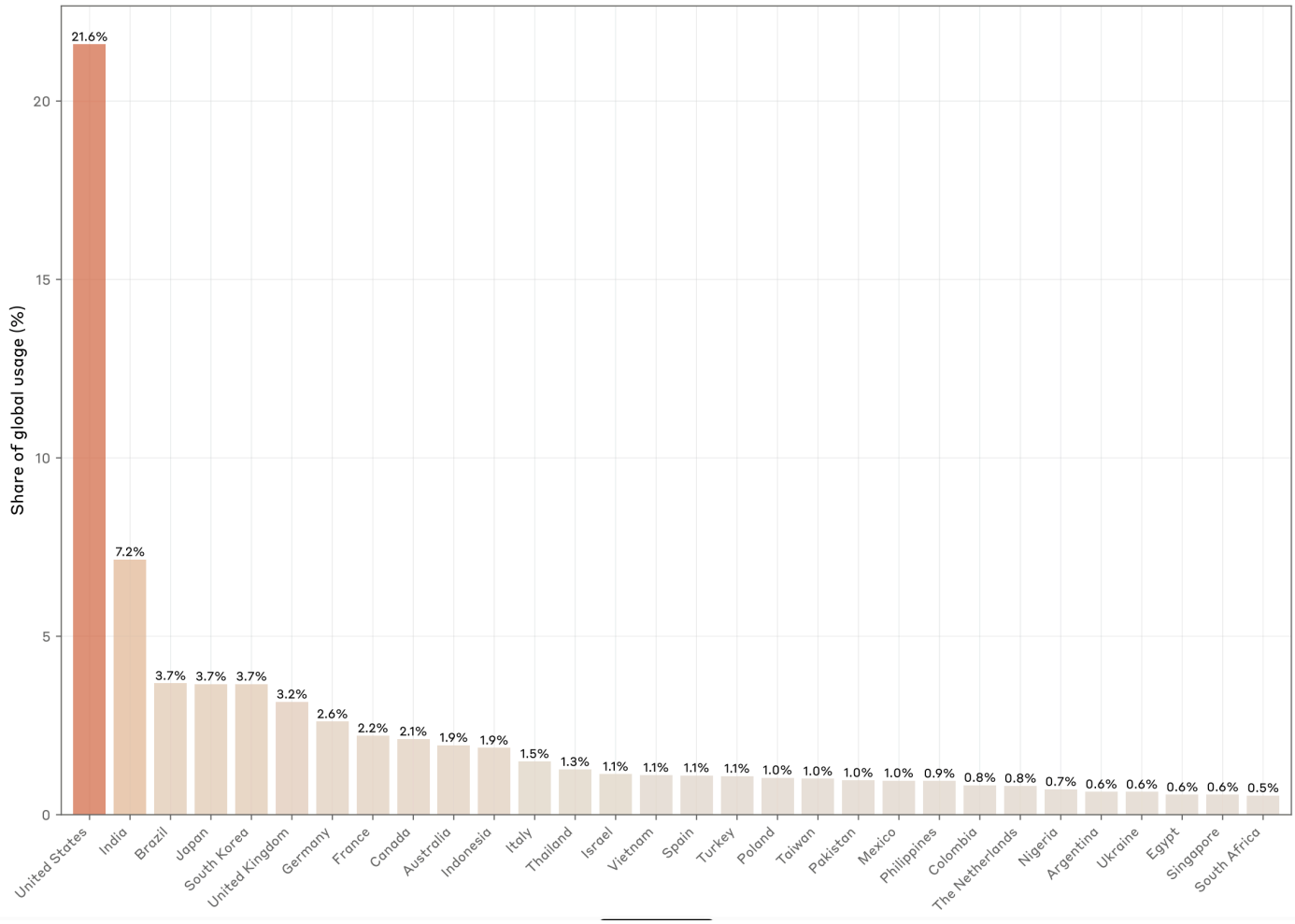
Scientific research, and medicine and life science in particular, stand to benefit. For example, a recent study by MIT shows how the use of an AI tool by a randomized group of 1000 materials scientists made their research into new materials more productive, accelerating discoveries and increasing patent filings by 20%. Many similar examples can be found in the medical field, where biomedical startups are using AI to predict a woman's near-term risk for breast cancer, helping doctors determine if a patient either needs more screening or preventative drugs. Algorithms are predicting how the immune system will respond to drugs and how patients will respond to cancer treatments. AI is also mapping proteins that could speed new therapies for autism. Across the medical field, AI is speeding research by significantly reducing the time required for clinical trials and testing. On a more mundane level, AI tools are letting doctors spend more time interacting with patients and less time creating records and filing forms.

Looking at other priorities, in California AI is being used together with low Earth-orbit satellites to pinpoint the origin of remote fires down to a one-meter circumference and correlate that with data on terrain features and the density of fuel load, helping firefighters prioritize where and how to respond to multiple fire outbreaks.

AI presents particular opportunities for small companies, enabling them to compete on a more level playing field with large ones. Startup founders can extend the runway of their venture capital by using AI to perform coding and other basic functions, supporting a company's development in its early stage with fewer people.

Research by Anthropic[1], based on use of Claude, suggests that at the global level AI use is geographically concentrated, with a high correlation to income. In the Asia-Pacific region, for example, the countries with the highest use per capita are Singapore and Canada. In general, lower adoption countries tend to use the model more for coding, while high-adoption countries tend to access the model for more diverse applications across education, science and business. This raises questions about future economic convergence or divergence at the global level if the benefits of AI are highly concentrated.

Leading Countries in Terms of Claude.ai Usage Share



Source: The Anthropic Economic Index report: Uneven geographic and enterprise AI adoption

AI and Employment: Preparing for Change

"Employers are starting to require AI literacy for nearly every role, but the there is a parallel rise in demand for employees with people skills in every field including in technical roles."

Technological revolutions bring significant disruptions. Knowing what to expect in advance will allow both companies and their employees to plan the necessary adjustments.

The changes stemming from AI are occurring in both tech and non-tech companies. Job postings mentioning generative AI skills outside the IT and computer science fields have grown 800% since 2022, catalyzed by a proliferation of tools, and more than half of AI-related openings are now outside of tech. In other words, as AI is eroding headcount in tech companies it is also creating new opportunities and rewards for workers in more traditional business roles who have acquired AI skills.[2]

Functionally, entry-level coding and HR roles such as recruitment, pay analysis, and performance management are increasingly being handled by AI. AI agents at Salesforce now manage half of the company's customer support calls. As positions in HR engineering have been eliminated and headcount in that field has fallen, employees have been redeployed to roles in professional services, sales, and customer success.[3] Accenture, which is actively training its employees in AI skills, also announced recently that it will begin "exiting" workers who it believes can't be reskilled. This is happening at the same time as the company's overall head count is increasing.

The Stanford Digital Economy Lab estimates calculates that early career workers (ages 22-25) in the occupations most exposed to AI have experienced a 13% relative decline in employment, while employment for workers in fields less exposed to AI and employment of more experienced workers in the same occupations has either remained stable or has grown. Employment declines are concentrated in occupations where AI is more likely to automate than to augment human labor.[4]

Analysis by LinkedIn suggests the outline of the changes that are underway and are likely to accelerate. The company's data builds on a base of one billion members, 70 million companies, and 15 million jobs that are tracked representing 40,000 standardized skills. Research based on this data has been used to support policy development by a range of US institutions and by international organizations such as the World Bank, OECD, the European Bank for Reconstruction and Development (EBRD), and the Inter-American Development Bank.

Adaptation and Changing Skillsets

Work has always changed. Currently, more than 10% of professionals securing jobs worldwide are being hired for roles that didn't exist 25 years ago. Examples include data scientist, digital marketing specialist, content creator, social media manager, and full stack engineer. People are also changing occupations more rapidly, and new graduates on average now hold twice as many jobs over their careers as they did 15 years ago.

Reflecting this, in the last three years the rate at which LinkedIn members have added new skills to their profiles has increased by 140%. AI accounts for 3 out of the top 15 fastest growing jobs in the US, including such positions as Artificial Intelligence Engineer, Artificial Intelligence Consultant, and Artificial Intelligence Researcher. The number of companies with a "Head of AI" position has tripled in the past 5 years.

AI is bringing change across the job market. LinkedIn has analyzed every occupation in its system as a bundle of skills, with each skill identified as being either complemented by AI or replicable by Generative AI. Some jobs are insulated and have low exposure, while others have high exposure but can be enhanced and supported by AI augmentation. A third category of jobs that require little human interaction are most vulnerable to disruption. No occupations are likely to disappear overnight, and so far LinkedIn's data finds no concrete evidence that AI is causing net unemployment.

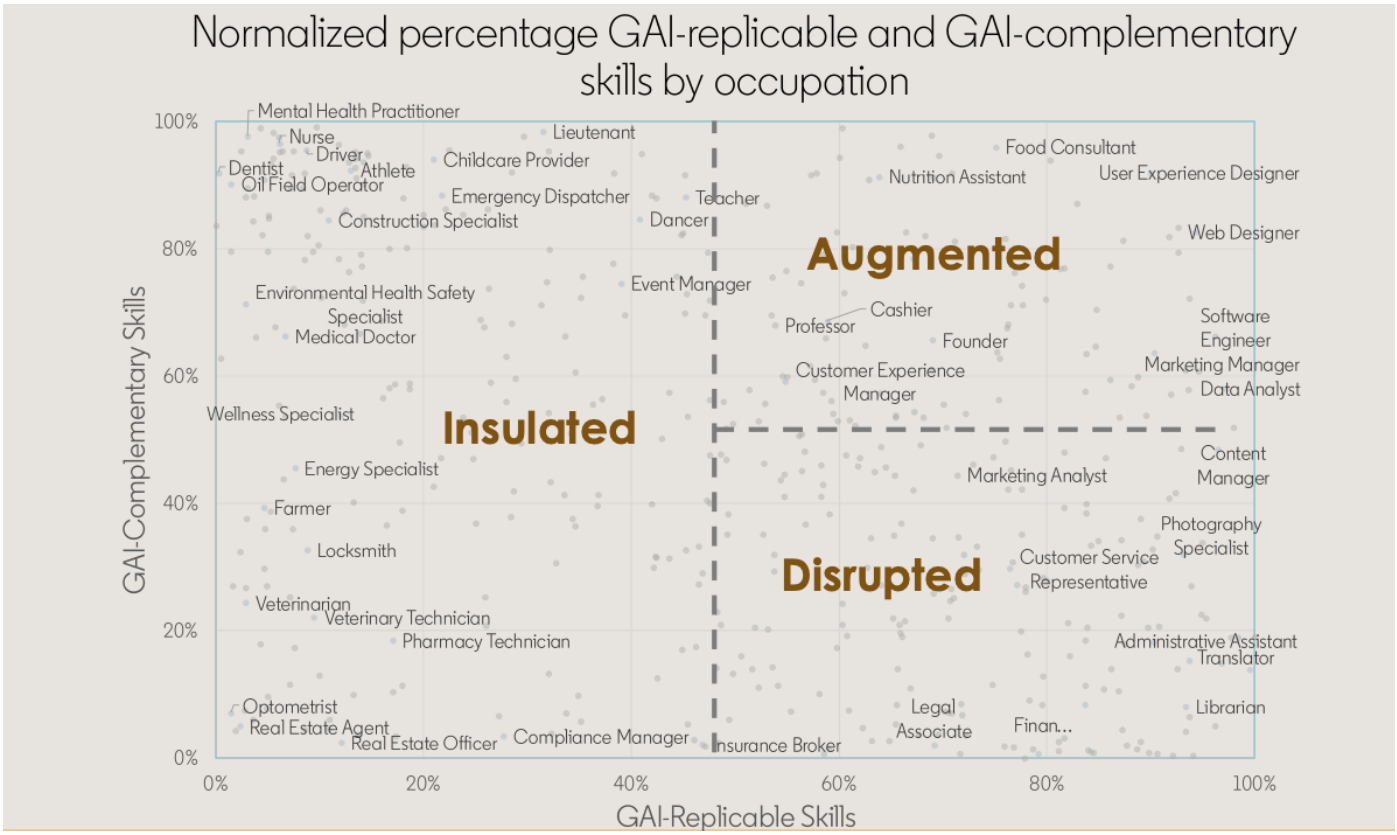
Other research by Anthropic, based on customer use of its model Claude, suggests that the use of AI for automation is growing relative to its use for augmentation, a trend that may reflect the improving capabilities of AI models.

Companies are adopting AI at different rates, but its use is starting to permeate into smaller companies as people are experimenting. Occupation by occupation and across economies LinkedIn finds that nearly half of its members can expect their work to be augmented or disrupted by AI. AI literacy is the fastest growing skill appearing on its platform, with changes coming mainly in two areas: 1) the ability to use AI tools, and 2) people skills. Employers are starting to require AI literacy for nearly every role, but there is a parallel rise in demand for employees with soft skills in every field including in technical roles.

Skills that can be replicated by AI include (in business and industry) Financial Reporting, Email Marketing, and Data Analysis; (in Communications and Media) Writing, Editing, Documentation, Translation, Content Creation; and (for individuals) Time Management Tools.

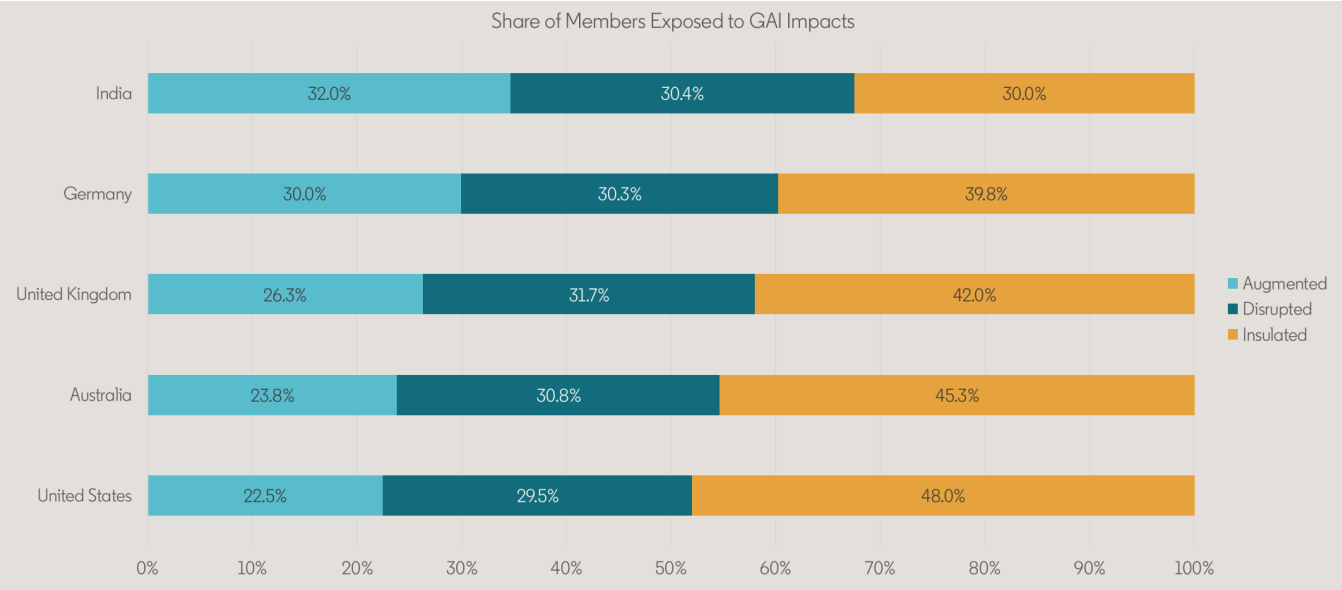
As use of the technology ramps up, people skills will grow in importance. These include, for example, creativity, curiosity, problem solving, and conflict mitigation skills. Since 2018 people skills have overall grown in importance by 10%, while in technical occupations it's 20%. Among C-suite executives it's 30%. The implication is that AI literacy will become increasingly important across a wide range of occupations, occupations that require physical work will be largely insulated, and people and interpersonal (soft) skills will be critical in a range of occupations that are at some level prone to automation.

All jobs have skills that can be replicated by AI, but no job can be fully replicated



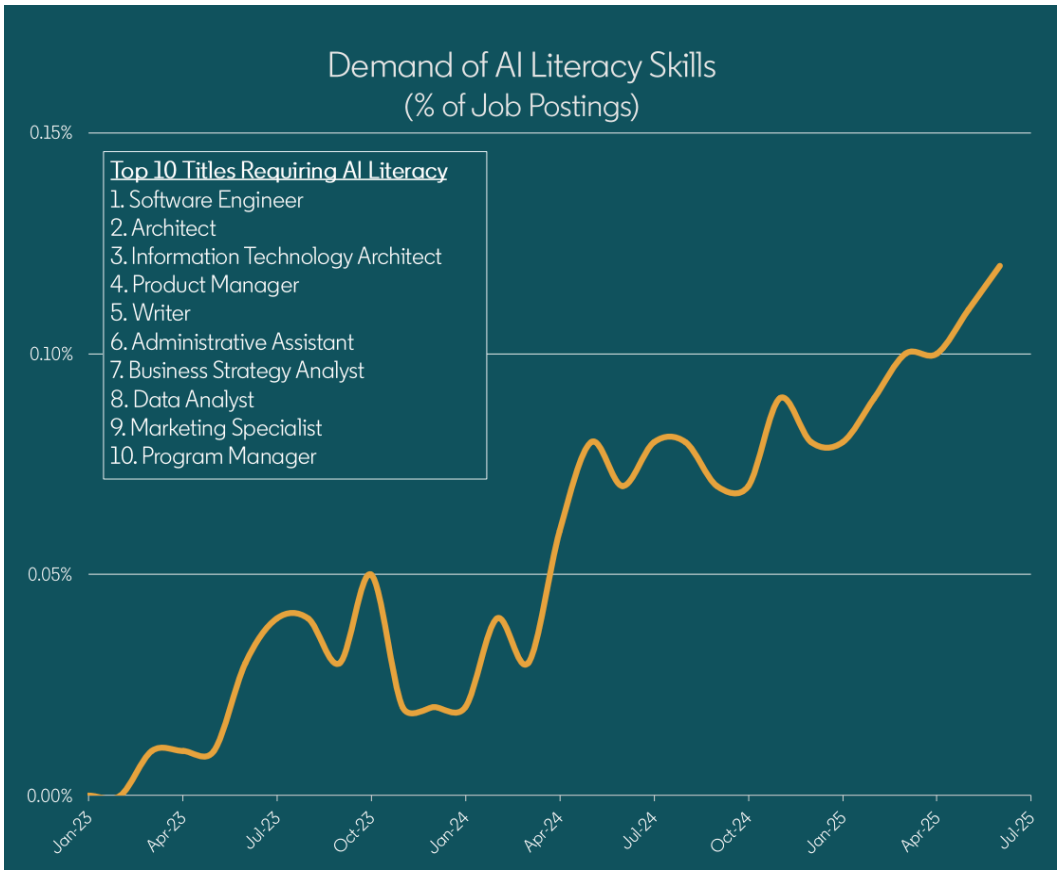
Source: Economic Graph Research Institute, AI & The Future of Work", Mar Carpanelli, Head of AI & Skills Research

Measuring the impact of GAI on the workforce



Source: Economic Graph Research Institute, AI & The Future of Work", Mar Carpanelli, Head of AI & Skills Research

70% YoY growth in Job Postings requiring AI Literacy skills



Source: Economic Graph Research Institute, AI & The Future of Work", Mar Carpanelli, Head of AI & Skills Research

Skills Dissemination Strategies

"AI isn't something that happens to the workforce. We can shape what it does to the workforce and how that happens, rather than the other way around".

California offers an example of how governments, often in partnership with industry, are driving AI skills development and deployment. Strategies are being developed around three questions: 1) What is the right regulatory framework for protecting workers and consumers while still enabling innovation, 2) How can productivity be increased through AI, and 3) How can AI education in the workforce be accelerated.

Public-private partnerships are playing a key role. In September 2023 California's Governor signed an executive order that recognized AI's risks but also laid out strategies to accelerate the adoption of AI in the state's workforce. The goal in state government is to increase the efficiency of government services and to accelerate the use of AI and the development of AI skills across departments. The executive order also set up a series of proof- of-concept pilot projects to be developed with industry partners.[5]

Those pilots included an early agreement with Nvidia to train 100,000 students, faculty, developers and data scientists in the state by creating training modules in its 2-year degree granting Community College system and in other institutions to directly align workforce skills development with industry needs. Under the agreement Nvidia is providing technical guidance and access to advanced hardware and software resources. It is also helping to create learning paths for AI talent, and industry-recognized certifications for sector-based AI-specific skills. Hackathons and design sprints showcase practical applications. For its part the State of is funding worker training initiatives and is supporting programs that use AI to address specific challenges, providing students with opportunities to work on real-world projects. The agreement also covers support for early-stage startups, AI bootcamps organized in cooperation with employers, certificate programs to meet employer needs, and AI laboratories in higher education facilities to support ongoing research.

In August 2025 a further agreement was announced by the Governor's Office with four of the state's largest technology companies – Google, Adobe, IBM and Microsoft - to help train California's workforce in a wide variety of AI-related jobs, including students at the high school, community college and California State University (bachelor's and master's degree) levels. The program will enable schools to modernize their curricula with the latest AI tools, access state-of-the-art technology, and provide networking and internship opportunities.

Similar public-private partnerships are developing at the city level. Since 2024 Nvidia has partnered with the City of San Jose and with San Jose State University to accelerate AI literacy, enhance workforce capabilities, and prepare students for advancement in AI-related fields. Under their agreement, San Jose will streamline regulatory approvals for AI initiatives and partner with educational and training institutions to create training programs and career pipelines. It will also engage the company's resources to foster an ecosystem that is supportive for AI startups. San Jose State University, which graduates many of Silicon Valley's engineers, will work with both Nvidia and the city to augment its research capabilities in AI, machine learning, robotics, and cybersecurity; refine educational and faculty development programs; and prepare students for roles in industry.[7] Independently, San Jose has created an IT Training Academy in city government to connect workers to AI tools that can increase their effectiveness and job satisfaction and lead to process and service improvements.

At the federal government level, Anthropic is providing its Claude for Enterprise and Claude for Government models for $1 to support the acceleration of AI adoption across all three branches of government. A similar agreement is in place with OpenA, where its ChatGPT model is also provided to federal agencies for $1 a year.

Collaboration on skills development extends to the private sector. OpenAI, for example, is partnering with the Bay Area Council to connect employees at its 270 member companies to cutting-edge training. The partnership gives Council members access to OpenAI certification programs ranging from basic workplace AI applications to advanced initiative leverages OpenAI's Academy platform, which has already connected more than 2 million people with AI training resources.

Businesses are also experimenting with apprenticeships, where employees can develop AI literacy while on the job. This allows skillsets to be developed and adapted as a job or role evolves. This offers an alternative to front-loaded, pre-employment learning, which may be less flexible, and to layoffs. It is important that companies take a long view in their AI talent strategies. This means thinking about the entry points for employees into their organization and how people move up in their workforce, as most people learn by doing the job.

Taken together these initiatives reflect a recognition in California's government and businesses that while AI will be disruptive it presents larger opportunities; that AI skills are becoming a necessity in the workforce; that advanced AI skills will bring a hiring premium; and that the speed and success of AI's adoption will impact the quality and efficiency of government services and the competitiveness of companies across industries.

Managing the AI Dimension of Cybersecurity

"With limited resources, particularly in government, do we want to chase after those risks that are high probability but relatively low consequence, or do we want to chase those risks that are relatively low probability but high consequence?"

AI and cybersecurity are both transforming. AI is changing the types of threats that systems administrators and end users need to anticipate and process, but it is also putting new tools in their hands. The complexity that this creates requires collaborative governance and real-time scenario planning that engages policy makers, industry, and academia.

AI offers three core advantages when dealing with cybersecurity threats. One is speed, as AI enables the rapid detection and mitigation of threats in real-time. The second is efficiency, as AI can facilitate data fusion across previously siloed datasets, enabling deeper insights. The third has to do with AI's emergent properties, where AI has the potential to analyze situations in unexpected ways, again contributing to deeper insights. This capability is pointing toward increasingly automated, predictive AI systems where AI can flag abnormal activity (such as phishing) and identify and contain breaches faster. Machine learning algorithms that process data streams can

identify anomalies in networks, flag suspicious activities, and shut out bad actors. In this way AI provides asymmetric advantages to defenders, through more scalable and sophisticated tools that for the first time gives those defenders an edge over attackers.

Attackers are at the same time using AI to develop more sophisticated capabilities, so it's a race. The challenges are both systemic and operational. In the cyber-physical world of the Internet of Things an attack could cause infrastructure to fail or your Tesla to suddenly stop. At a high level this presents a choice for businesses and policymakers: should they focus on high probability but low impact risks, on low impact but high probability risks?

For governments, reaching the right answers will require the right regulatory focus. For example, the EU's AI Act relies heavily on the technical specifications of large language models and less on the behavioral context of how AI is used. AI-related risks are primarily behavioral, however. Rather than focus primarily on the technical oversight of models, regulation will be more effective if its primarily focus is on risk-based behavior. Concentrating on large models at the technical level misses the point that very risky things can also happen with relatively small models.

The choice of open versus closed AI models raises another structural question, as open models can promote innovation and collaboration but are more vulnerable to data poisoning, adversarial attacks and theft. Closed models, on the other hand, may be more secure but can also inhibit transparency and democratic oversight.

Risk Mitigation

"There are two kinds of companies in the world: those that have been cyber attacked and know it and those that have been attacked and don't know it. Ultimately you have to figure out what's your response and plan. Every entity needs one".

We don't have effective ways to measure cyber-preparedness or simulate catastrophic scenarios. The complexity of the cyber-physical world (as seen in things such as smart homes or the technology underlying connected vehicles) adds to the challenge. Business and civil entities such as hospitals often operate with outdated systems and small cybersecurity budgets so are particularly vulnerable to attacks. Mitigating strategies include government incentives for (more secure) cloud adoption, board-level training in cyber literacy, and creation of a digital emblem (like the Red Cross) to identify and protect humanitarian targets.

Education

"We don't have the cyber workforce we need now and will need in the future."

Universities can play an important role in Cyber-AI skills development. Foundational education in basic skills such as probability, statistics, and algorithms is important and coursework in computer science needs to be continuously adapted. Supporting initiatives should include internships and mentorship opportunities in industry for students, and sabbaticals in the private sector for faculty.

In the private sector cyber literacy should be part of executive leadership training and large firms need a Chief Information Security Officer (CISO). Everyone who sits on a board or in a C-suite needs to be technically literate in this area. Trained people are also needed in key positions throughout the organization. The lead person might be a chief AI officer or someone responsible for digital transformation who can engage across the organization around what AI diffusion and its cybersecurity dimension will look like. Placing cyber-AI officers in governments will also be important.

Governance and Standards Development

"Technology is moving at an exponential rate but organizational change happens at a linear rate. Structurally we have a gap."

Progress in addressing AI and cybersecurity issues at a global level – in Geneva or at the UN - has been slow due to geopolitical tensions. The war in Ukraine has also shown that voluntary norms (e.g., agreement to not target critical infrastructure) are routinely ignored. This has led to an array of parallel or mini-lateral efforts. Alternative, faster-moving pathways include using technical standards bodies like NIST and ISO to shape cybersecurity practices and build consensus on standards. Regional and industry-based initiatives can also be used to address this issue, and be more flexible in standards development than treaty-based diplomacy.

It is important that industry be invited to contribute it expertise to these multistakeholder forums. Many companies in the field are American, but others (e.g., Mistral, DeepMind, and DeepSeek) are global. The problems on the table are multi-state and multi-stakeholder, and industry experience is important when understanding the threat landscape and possible solutions. There is a role for NGOs as well.

Scenario-based governance offers an opportunity to match regulations with real use cases. All countries, including very importantly the Global South, need to both participate in and benefit from this standards-setting process.

Stakeholder	Recommendations
Universities	Revise curricula, teach probability, risk, and algorithms; expand internships; foster faculty-industry ties including sabbaticals or summers working with industry partners
Governments	Incentivize secure cloud adoption; incentivize and fund cyber defense in hospitals; harmonize laws
Technology Companies	Share threat intelligence; contribute to attribution capabilities of stakeholder coalitions to better identify and deter attacks; participate in global standards bodies
Industry	Provide internships for students to gain practical cybersecurity and AI experience
International Orgs	Focus on behavioral and risk-based standards; include Global South stakeholders; create oversight mechanisms

The integration of AI and cybersecurity is at an inflection point. As AI systems grow more capable in the coming decade, the complexity of managing them will outpace the capacity of the available cybersecurity workforce. Addressing this challenge will require:

- Cross-sector collaboration
- Behavioral, scenario-driven regulation (as opposed to technical-based regulation)
- Investment in human capital
- The inclusion of vulnerable and under-resourced sectors
- Global equity in both capability development and norm-setting.

Balancing Regulation with Innovation

"AI is a general purpose technology that is being integrated into almost every sector, which makes the regulatory conversation complicated. The notion that there will be one final regulatory answer is illusory. AI is evolving and the regulatory landscape and regulatory governance will also evolve."

The governance of AI to ensure safe and responsible use is complicated, in part because AI it is an evolving technology. To start with there is an evidence dilemma, as regulators are being asked to weigh in without a significant body of scientific evidence. There are also different risks to consider: malicious actors who deliberately cause harm, non-malicious actors who unintentionally cause harm (e.g., through bias), and systemic risks that come with the deployment of foundational models.

Developing a Shared Language

This raises a number of questions for governments: how much should we focus on transparency (which may reveal personal information or IP); what are we looking to accomplish through transparency and will transparency by itself ensure accountability; how should adverse events be reported and how should that information be disseminated; what level should regulation come from (state, federal, international); do we have a way to know if action by other countries or the UN are working; and what is the likelihood of achieving a global consensus on AI governance?

At the moment we don't have a common vocabulary, much less interoperability between regulatory systems. AI companies want to do the right thing and broadly believe that some form of regulation is necessary, but stakeholders aren't all speaking the same language on what that means concretely (for example what defines accuracy and bias). In the near term the development of that shared language is more likely to come out of conversations in forums that engage core stakeholders than out deliberations by an international institution.

Regulatory Interoperability and International Standards

This is where the question of regulatory interoperability and international standards comes in. If we're not speaking the same language about the same problem it's an issue. Many conversations about regulation are underway. It's important that from this we produce an environment that enables regulatory interoperability in the U.S. as well as globally, as regulatory strategies and fragmented approaches can affect AI companies but also markets and consumers. It can be argued, for example, that the competitiveness of European companies in this field is negatively affected by the regulatory hurdles those companies need to go through. The GPAI Code of Practice details how to comply with the AI Act but is unclear on the connection is between the Act's details and its objectives.

We need to move in this direction urgently but also thoughtfully, as the process is about mitigating risks but also about facilitating benefits. This calls for a holistic approach. California's government, through the Office of the Governor, has adopted a regulatory strategy that weighs on the side of innovation, adoption, enabling the industry's growth, while also recognizing the need for guardrails and the regulation of use cases – essentially a risk-based approach. In 2024 the Governor signed several bills passed by the legislature that addressed AI education and specific use-based risks. That included AB 2876, which integrates AI literacy into the core curriculum for all K-12 students in California. He vetoed, however, SB 1047, a bill loosely based on the EU's AI Act that would have preemptively regulated foundational models.

Recognizing the need for a regulatory strategy that meets the state's priorities, he subsequently commissioned a high-level working group composed of university and other experts to develop an analytical framework to inform future policies and legislation. Those recommendations were presented in June 2025 in the California Report on Frontier AI Policy. In September 2025 a new bill, the Transparency in Frontier Artificial Intelligence Act – was signed that establishes safety guardrails for the development of frontier AI models while minimizing barriers to innovation.6 Overall, California's approach recognizes concerns regarding AI's risks and the need for regulation based on risk-based use, while at the same time accelerating the adoption and integration of AI in government and business, investing in an AI-literate workforce, and nurturing a business environment that is conducive to the continued growth

of AI and investment in the sector. Effective governance may not always require the creation of new government institutions where existing regulatory structures can be leveraged.

At the global level the UK and Japan have been thoughtful in their approach. The Prime Minister's AI Opportunity Plan aims to position the UK as a place that AI companies will want to call home, with domestic growth and international partnerships at the forefront, while also delivering the benefits of AI in a safe manner. The process in the U.S. has been more tumultuous but there has been general consistency around the importance of encouraging R&D, developing an empowered AI workforce, and supporting AI as an economic engine. While legislative action to regulate AI is unlikely in the near-term, the AI Action Plan announced by the White House in July 2025 leans heavily in the direction of accelerating innovation, investment in infrastructure, and commercial development.[8] Other places in the world are looking at their options but aren't rushing to conclusions.

Adopting Risk-Based Strategies

There is general agreement in California's government and among its companies that the most effective regulatory strategy will be one where the primary focus isn't on the base technology but on how it is applied. This shifts the primary focus from developers and deployers. The question then becomes: what risks are you trying to reduce or mitigate; how do those risks arise; how can companies be incentivized to forestall or mitigate those risks?

By focusing on risk, best practices can be developed through multistakeholder dialogues that engage and can ultimately support regulators. Governments sometimes focus on models and on intervention in how they are developed, but the answers to these policy challenges lie more in how AI models are used. All problems can't be solved at the model level, and it's important to look more closely at use cases, where harm is occurring, and its context.

Understanding AI Stacks

Regulators also need to understand AI systems as involving multiple stacks of models that interact with each other. If we get too focused on particular models without looking at the full systems and on ways to evaluate their outputs we'll fail to keep them accountable.

Advancing AI Through APEC

As indicated in its recent report Navigating Artificial Intelligence Landscape in APEC: Balancing Development and Oversight[9], APEC economies are taking varied approaches to the topic of regulations and risk management, with notable differences in implementation and regulatory scope. APEC can play a useful role in coordinating regulatory approaches and supporting innovative AI development across the region, particularly with regard to the development of best practices and interoperable legal and policy frameworks. San Francisco/Silicon Valley Bay Area companies and organizations are prepared to be active partners.

This analysis was produced by Dr. Sean Randolph, Senior Director at the Bay Area Council Economic Institute, based on a series of public forums organized by the Bay Area Council in 2025 with leaders in the region's Technology, AI, university, civic and diplomatic communities. Additional research by the Bay Area Council Economic Institute on the AI industry on AI policies and strategies adopted by the government of California added context. Contributors to these forums include: Janet Napolitano, former U.S. Secretary of Homeland Security, past-President of the University of California, and currently Director of the UC Berkeley Center for Security in Politics; Dr. Alice Friend Hunt, Head of AI and Emerging Tech Policy at Google; Paula Goldman, Chief Ethical and Humane Use Officer and EVP of Product at Salesforce; Rachel Kells, Chief of Staff for the UK Tech Envoy; Jaehoo Yeom, Vice Chair of the Presidential Committee on Artificial Intelligence of the Republic of Korea; William Cutler, Head of Tech Policy and Deputy UK Tech Envoy to the US; Florian Cardineaux, Consul General of France in San Francisco; Trelynd Bradley, Deputy Director of Innovation and Emerging Technologies in the California Governor's Office of Business and Economic Development; Michael Nunes, VP for Global Engagement at Visa; Ashley Zlatinov, Public Policy Product Lead at Anthropic; Songyee Yoon, Advisory Council Member at the Stanford Center for Human-Centered AI; Andrew Reddie, Founder of the Berkeley Risk and Security Lab; Mohammad Qayoumi, former President of San Jose State University and past Chief Advisor for Infrastructure and Technology to the President of Afghanistan; John Hering, Director of Cybersecurity Policy and Diplomacy at Microsoft; Stephen Caines, Chief Innovation Officer for the City of San Jose; Nikki Tosiello, Executive Director of the Northern California Apprenticeship Hub at BuildWithin; Angelo Farooq, member and former Chair of the California Workforce Development Board; and Mar Carpanelli, Head of AI & Skills Research and LinkedIn.

Endnotes

1. Anthropic, Anthropic Economic Index Report: Uneven Geographic and Enterprise AI Adoption, September 15, 2025
2. LIghtcast – Beyond the Buzz, "AI Skills Command 28% Salary Premium as Demand Shifts Beyond the Tech Industry", July 24, 2025.
3. CNBC, "Accenture Plans on "Exiting" Staff Who Can't be Reskilled on AI Amid restructuring Strategy", September 27, 2025.
4. Bharat Chandar and Ruyu Chen, "Canaries in the Coal Mine? Six Facts About the Recent Employment Effects of Artificial Intelligence, Stanford Digital Economy Lab, August 29, 2025.
5. Office of Governor Gavin Newsom, "Governor Newsom Signs Executive Order to Prepare California for the Progress of Artificial Intelligence", September 9, 2023.
6. Matt Mahan Mayor of San Jose, "Collaboration with Nvidia", December 12, 2024.
7. Office of Governor Gavin Newsom, "Governor Newsom Signs SB 53, Advancing California's World-Leading Artificial Intelligence Industry. September 29, 2025.
8. White House, "White House Reveals AI Action Plan", July 23, 2025.
9. Andrew Wirjo, Maria Vasquez Callo-Muller, and Eldo Malba Simanjuntak, "Navigating Artificial Intelligence Landscape in APEC", APEC Policy Brief No. 66, April 2025.

About the Institute

The Bay Area Council Economic Institute is the leading think tank focused on the economy of the San Francisco Bay Area-Silicon Valley, the most dynamic region in the United States and the world's leading center for technology and innovation. A forum for stakeholder engagement and a respected source of information and fact-based analysis, the Institute is a trusted partner and adviser to both business leaders and government officials. Through its economic and policy research and its many partnerships, the Institute addresses major issues impacting the development and competitiveness of California and the region, including infrastructure, climate, science and technology, and international trade and investment. The Institute is part of the Bay Area Council, a public policy organization that includes hundreds of the region's largest employers. It also supports and manages the Bay Area Science and Innovation Consortium (BASIC), a partnership of Northern California's research universities, federal laboratories, independent research laboratories, and leading research-based companies. BASIC provides a forum for the exchange of ideas on regional research priorities and a platform for public private collaboration to address them.

Bay Area Council Economic Institute

The Historic Klamath, Pier 9, San Francisco, CA

www.bayareaeconomy.org

bacei@bayareacouncil.org

@bayareaeconomy

BAY AREA COUNCIL ECONOMIC INSTITUTE