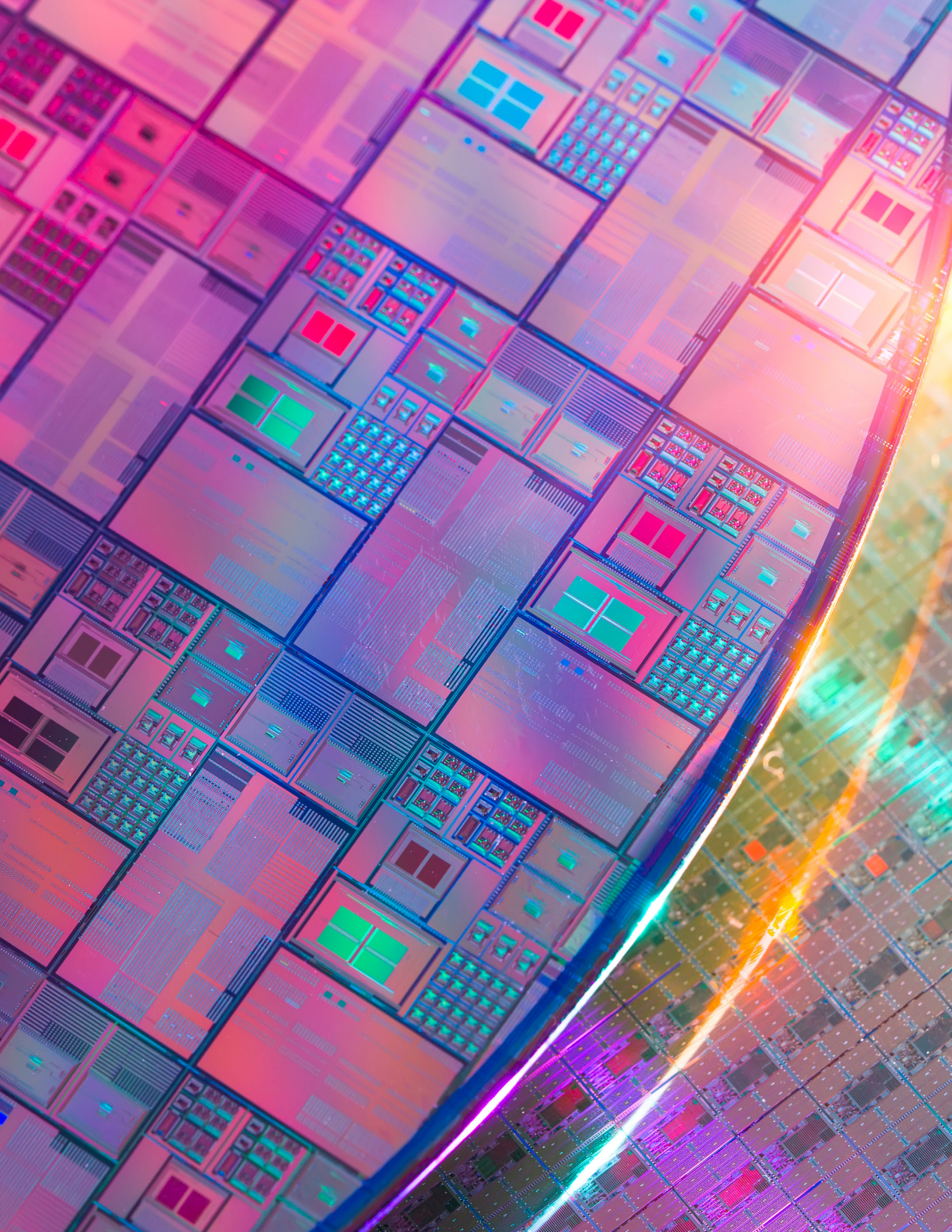




# STATE OF THE U.S. SEMICONDUCTOR INDUSTRY

# 2025



## TABLE OF CONTENTS

---

### **5 SECTION 1: AMERICA'S SEMICONDUCTOR ECOSYSTEM**

- 6 ECOSYSTEM MAP AND OVERVIEW**
- 8 MANUFACTURING**
- 9 RESEARCH**
- 10 U.S. INDUSTRY R&D INVESTMENTS**
- 12 DESIGN**
- 13 WORKFORCE**

### **16 SECTION 2: AMERICA'S SEMICONDUCTOR SUPPLY CHAIN**

- 17 GLOBAL COMPETITION**
- 18 TRADE**
- 19 EXPORTS**
- 20 SUPPLY CHAIN VALUE ADDED BY COUNTRY AND REGION**

### **21 SECTION 3: AMERICA'S SHARE OF THE GLOBAL SEMICONDUCTOR MARKET**

- 22 U.S. MARKET SHARE**
- 23 GLOBAL SALES**
- 24 DEMAND BY END USE**
- 25 SIDEBAR: U.S. SEMICONDUCTORS ENABLE AI**

### **26 POLICY AGENDA**

## INTRODUCTION

---

**Semiconductors are a marvel of modern technology and the foundation of our digital world. The chips powering modern smartphones contain more than 15 billion transistors, each smaller than a virus and capable of switching on and off billions of times per second. The semiconductors at the heart of today's AI data centers can contain hundreds of billions of transistors, a number so high that if you counted one transistor per second, it would take more than 6,000 years to count all the transistors on a single chip.**

This foundational technology is the hidden force driving modern innovation – and a testament to the wonder of advanced semiconductor research, design, and manufacturing.

In 2025, semiconductors are not just components in consumer devices – they are the essential building blocks for the technologies shaping America's future. From artificial intelligence and quantum computing to advanced communications networks and defense systems, chips are at the heart of the competition for global technology leadership in the 21st century.

American engineers invented semiconductors 65 years ago, and the U.S. semiconductor industry remains the global leader, commanding just over 50% of global chip revenues. But as competitors from around the world have sought to challenge U.S. leadership, America's share of global chip manufacturing capacity was declining sharply – from 37% in 1990 to just 10% by 2022. If this trend were to continue, the U.S. semiconductor industry would risk falling back from the forefront of further advances in manufacturing processing technology, designs and architectures, and materials critical for developing the next generation of chips that will underpin the technologies of tomorrow.

Fortunately, landmark government incentives and research investments have helped to turn the tide, signaling a renewed national commitment to strengthening U.S. leadership in this critical sector. And in just a few years, we've seen a massive return on investment: Over 100 projects in 28 states have been announced, totaling over half-a-trillion dollars in private investment. These projects are expected to create and support more than 500,000 U.S. jobs and help triple U.S. chipmaking capacity by 2032.

Now more than ever, sound government policies are critical to our industry's ability to grow and innovate. Decisions in Washington and around the world are reshaping the global semiconductor landscape. Continued U.S. leadership in chips will depend on advancing smart tax, research, and workforce policies here at home, strengthening U.S. supply chains, remaining cost-competitive in global markets, and ensuring trade and national security policies are carefully targeted and calibrated to accomplish their objectives without stifling innovation. The choices made now will shape not only the future of the industry, but America's position in the world.

**This report provides a snapshot of where the industry stands in 2025: the progress underway, the challenges ahead, and the stakes of getting it right.**

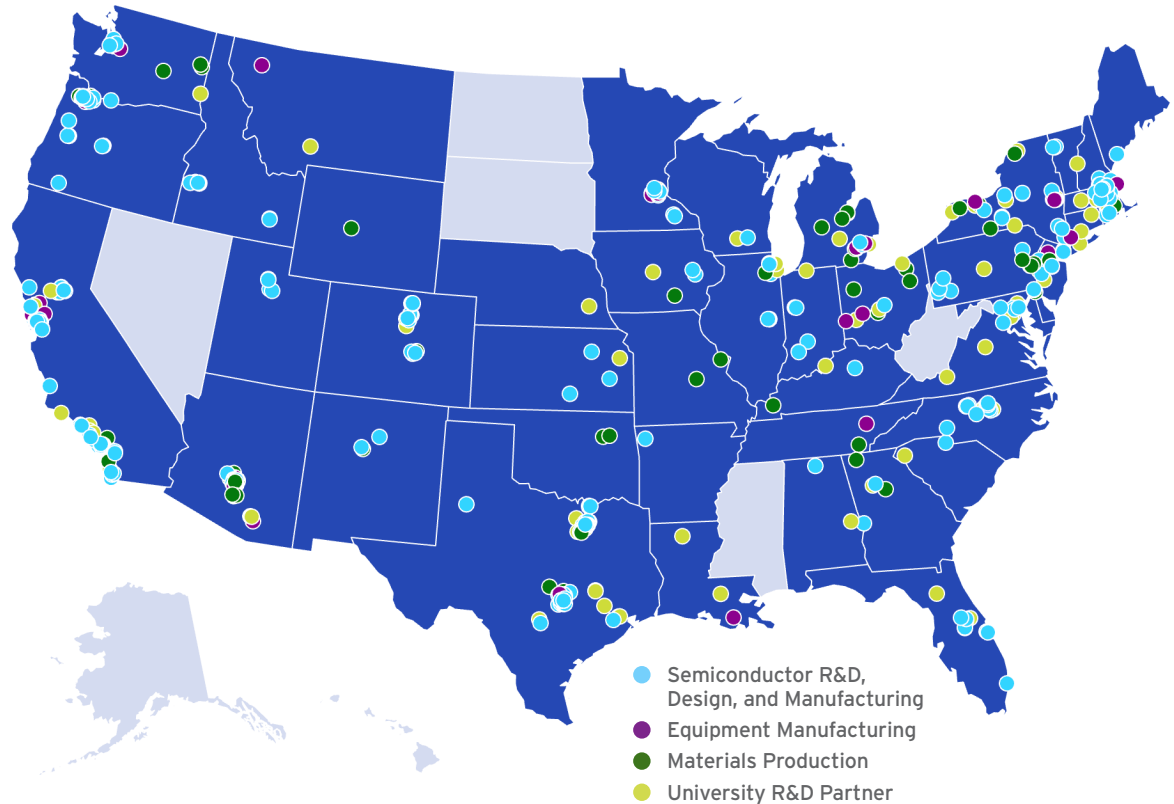
The background of the entire page is a close-up, high-magnification image of a semiconductor chip. It shows a complex grid of small, square dies or components, with various patterns and textures visible. The color is a deep blue, with some lighter blue highlights that create a sense of depth and focus on the intricate details of the chip's surface.

SECTION 1

# AMERICA'S SEMICONDUCTOR ECOSYSTEM

**U.S. chip manufacturing incentives and R&D investments are generating a tremendous return on investment and strengthening America's semiconductor supply chains. But more work remains to sustain and grow these investments, reinforce U.S. leadership in chip design, and build up America's semiconductor workforce.**

### U.S. SEMICONDUCTOR ECOSYSTEM MAP, 2025

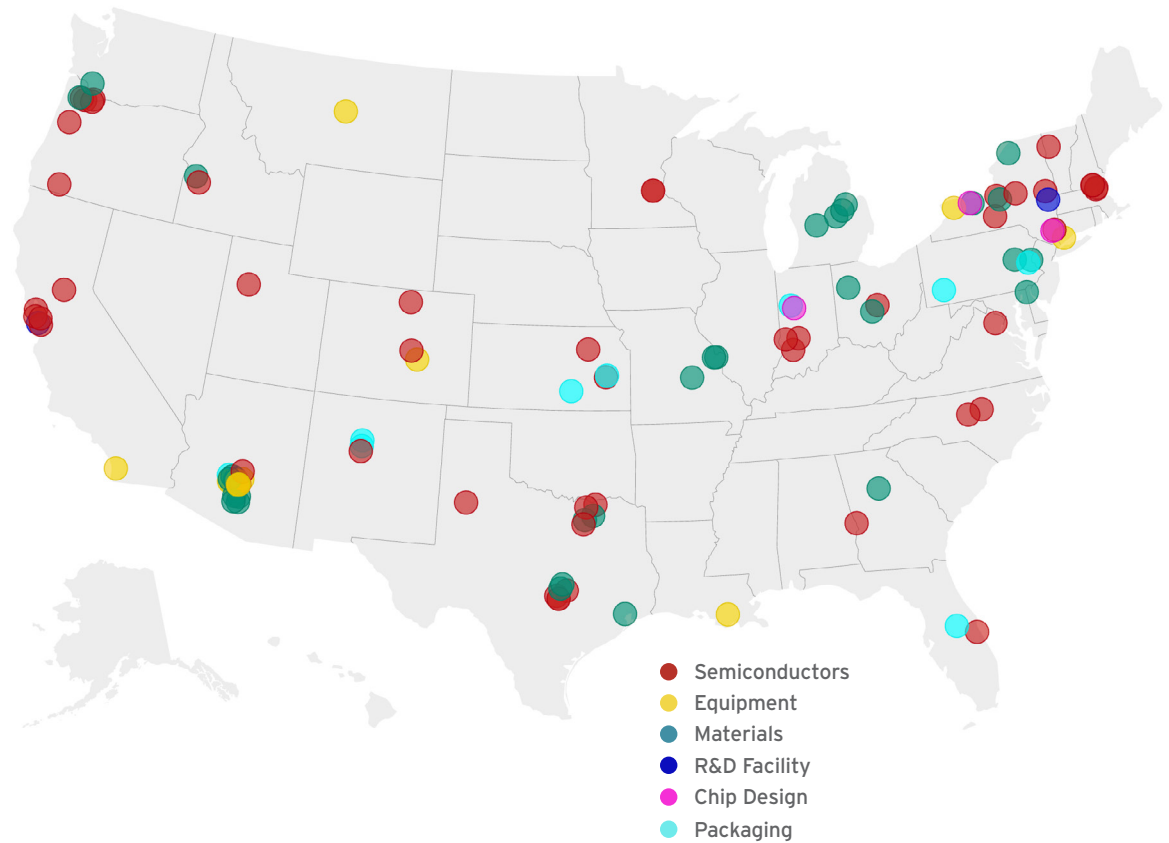


Source: SIA, U.S. Semiconductor Ecosystem Map

The semiconductor industry is one of the world's most advanced manufacturing and research and development (R&D) sectors. The U.S. Semiconductor Ecosystem Map demonstrates the breadth of the industry, including locations conducting R&D,

intellectual property and chip design software providers, chip design, semiconductor fabrication, and production by suppliers of semiconductor manufacturing equipment and materials.

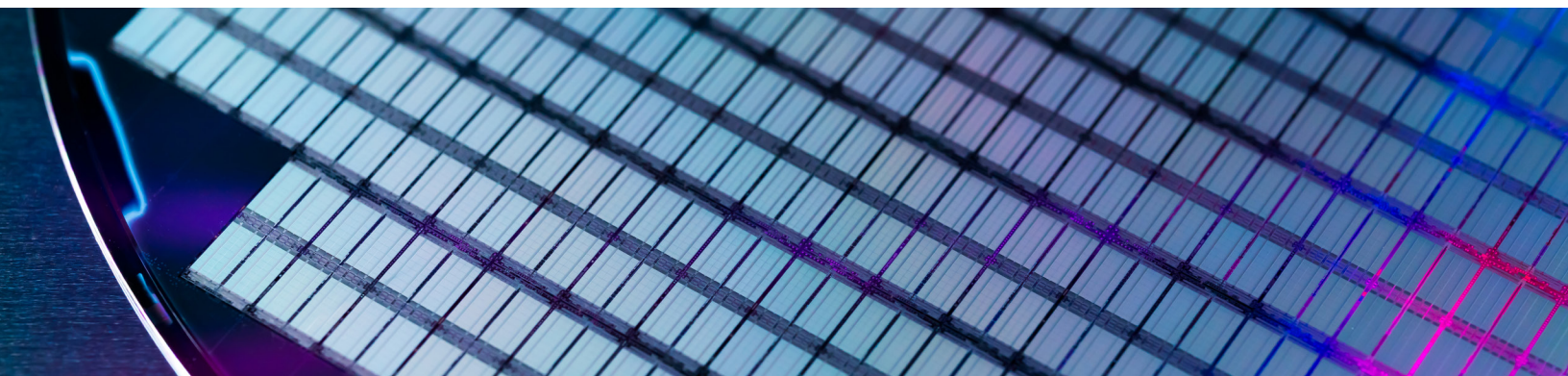
## SEMICONDUCTOR SUPPLY CHAIN INVESTMENT ANNOUNCEMENTS, 2020-2025



Source: SIA, America's Chip Resurgence

The Semiconductor Supply Chain Investment Map above shows the recent expansion of America's semiconductor footprint, capturing more than a half-trillion dollars in recently announced investments for

over 100 chip ecosystem projects across 28 states. Maintaining a world-leading U.S. semiconductor research, design, manufacturing, and supplier base is an economic and national security imperative.



# MANUFACTURING

**Following decades of decline in the U.S. share of global chip manufacturing capacity, the semiconductor industry is leading the effort to re-industrialize America through massive domestic investments.**

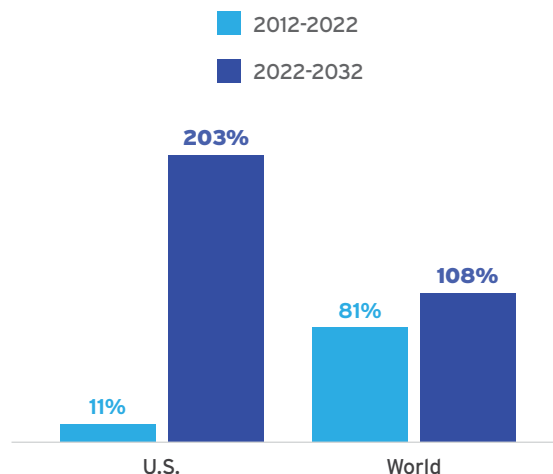
Crucial chip manufacturing incentives, initiated in 2020 during President Trump's first term, are accelerating this effort, expanding America's semiconductor ecosystem, and addressing pressing economic and national security priorities.

As of July 2025, companies in the semiconductor ecosystem have announced more than over half-a-trillion dollars in private-sector investments to revitalize the U.S. chip ecosystem, setting in motion a projected tripling of U.S. chipmaking capacity by 2032. These projects are projected to create and support over 500,000 American jobs – 68,000 facility jobs in the semiconductor ecosystem, 122,000 construction jobs, and over 320,000 additional jobs supported throughout the U.S. economy.

To build on this success, leaders in Washington in July 2025 enacted legislation that strengthens a critical tax incentive – the Advanced Manufacturing Investment Credit (AMIC) – that has helped catalyze these company investments. The new law increases the rate of the AMIC from 25% to 35%. SIA also supports extending the credit beyond its 2026 expiration and expanding it to cover chip research and design. Doing so would further accelerate America's re-industrialization, spur additional investment, and enhance our global competitiveness.

## PROJECTED INCREASE IN U.S. FAB CAPACITY VS. WORLD AVERAGE

(% CHANGE IN CAPACITY)



Source: SIA/BCG

<sup>1</sup> Section 48D of the Internal Revenue Code

## RESEARCH

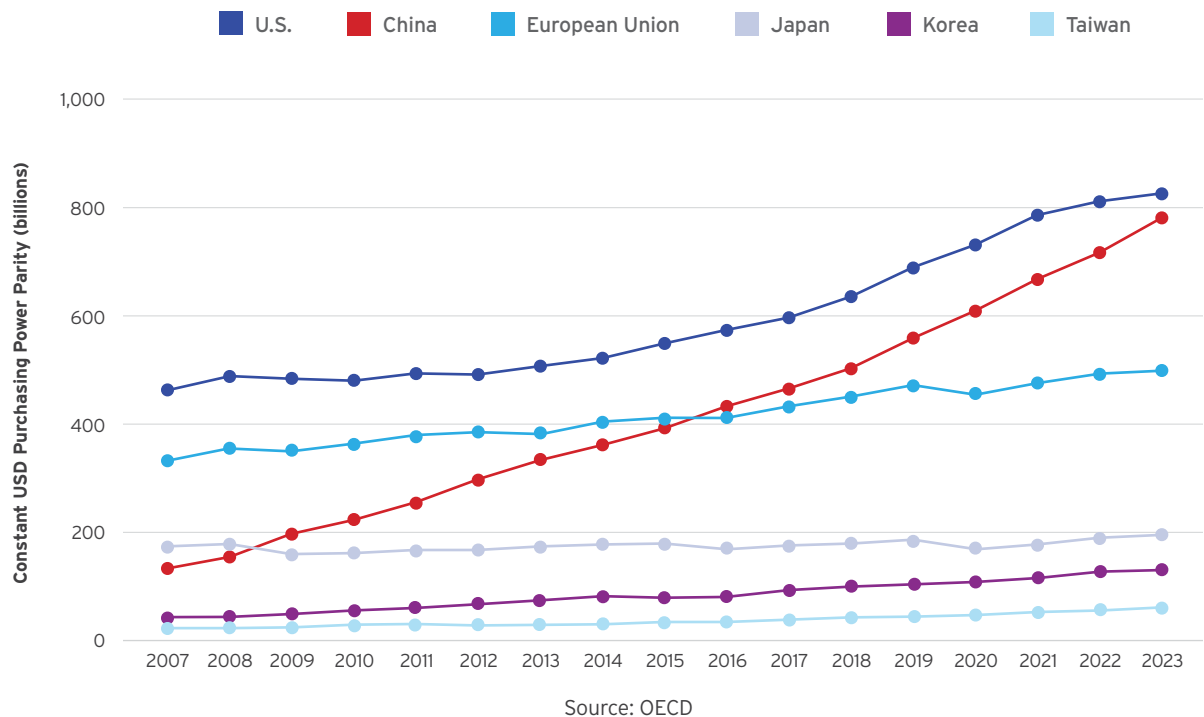
**Federal R&D investments are building the framework to maintain and extend U.S. technology leadership, strengthening links between researchers and manufacturers to accelerate the transition of new innovations into commercial or defense products and applications with benefits that will multiply throughout the economy and enhance our national security.**

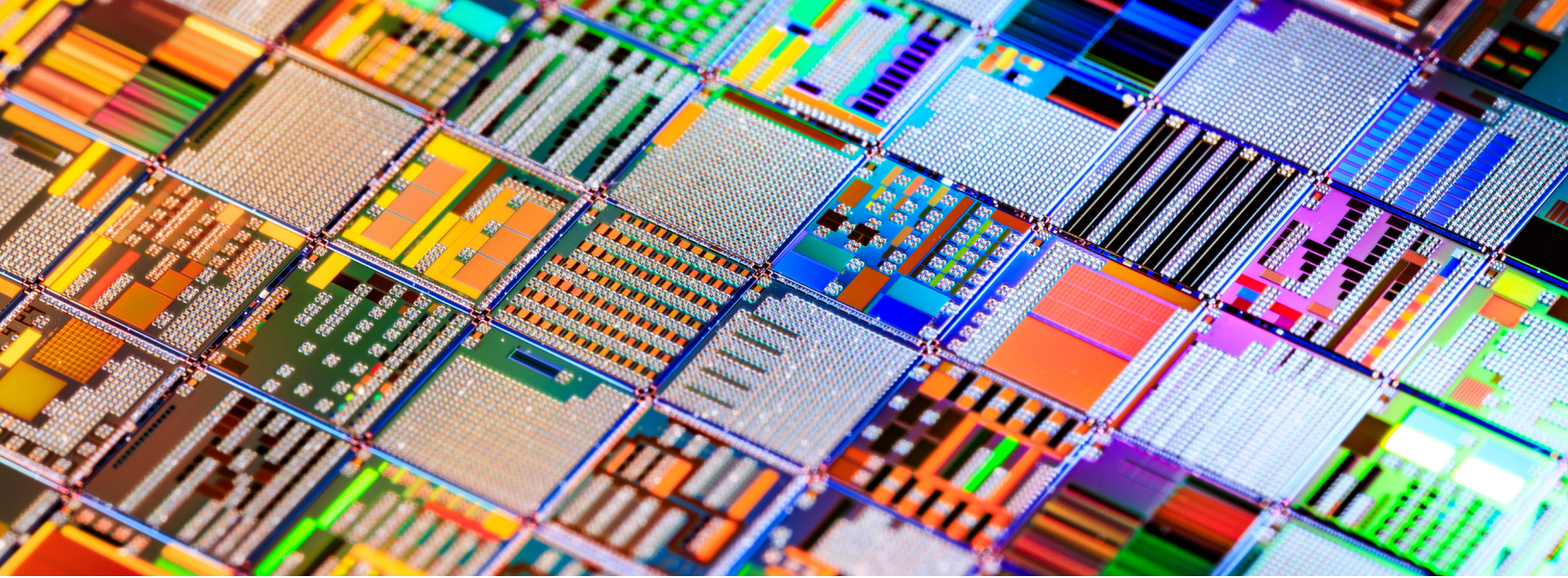
Basic and applied research in semiconductor-related fields at federal agencies set the foundation for innovation and future American semiconductor technology leadership.

Many of these critical research initiatives are funded through or operated by the National Science Foundation (NSF), National Institute of Standards & Technology (NIST),

and Department of Energy (DOE) Office of Science, alongside federally funded semiconductor research programs like the National Semiconductor Technology Council (NSTC), National Advanced Packaging Manufacturing Program (NAPMP), and Semiconductor Manufacturing and Advanced Research with Twins USA (SMART USA).

### ANNUAL R&D EXPENDITURES BY COMPANY HEADQUARTER LOCATION, 2007-2023

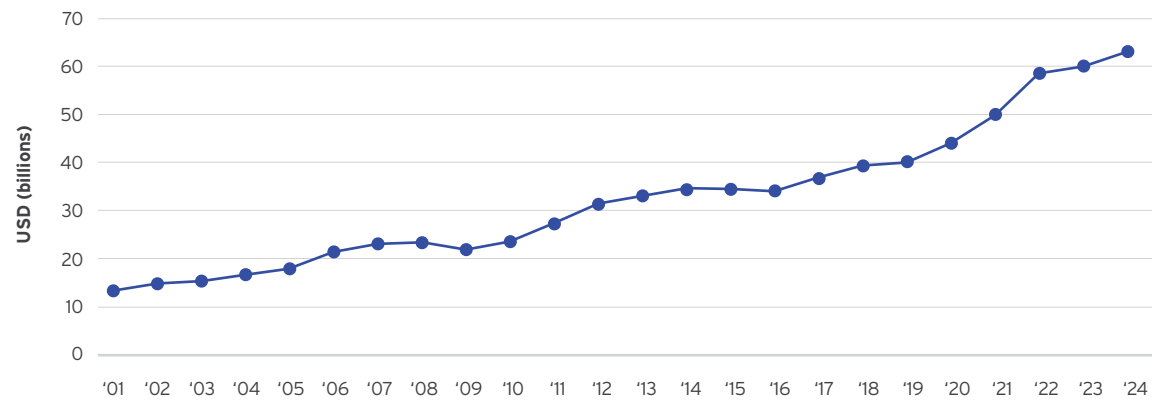




U.S. semiconductor R&D expenditures are consistently high, regardless of cycles in annual sales, reflecting the inherent link between U.S. market-share leadership, research investments, and continued innovation.

In 2024, overall U.S. semiconductor industry investment in R&D totaled \$62.7 billion. The growth in the dollar amount of R&D spending in 2024 represented an increase of roughly 5.7% over 2023.

**R&D EXPENDITURES, U.S.-HEADQUARTERED COMPANIES, 2001-2024**



Source: SIA, 2025 Factbook

The U.S. semiconductor industry maintains one of the highest levels of R&D as a percent of sales of any U.S. industry.

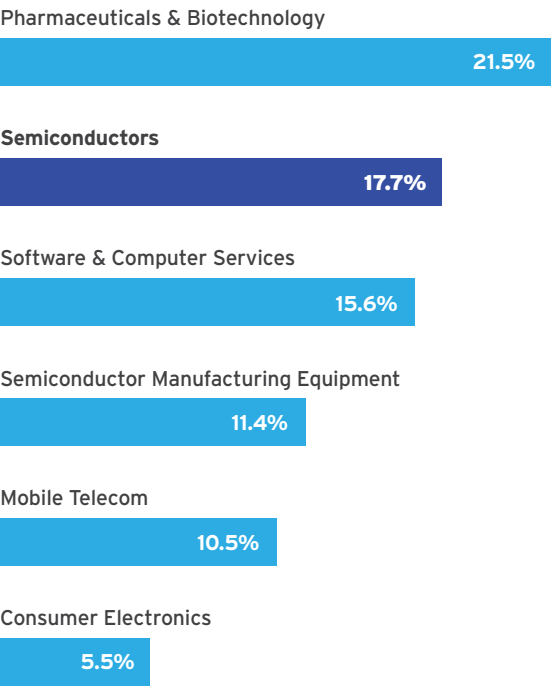
The U.S. semiconductor industry invested 17.7% of revenue into R&D in 2024, ranking second to the U.S. pharmaceuticals and biotechnology industry in terms of the rate of R&D spending as a percent of sales. While

global competitors are increasing their R&D investments to compete with the U.S. industry, American firms spend more on R&D than any other country's semiconductor industry. These high levels of reinvestment into R&D drive innovation in the U.S. semiconductor industry and, in turn, help maintain global sales market leadership and jobs throughout the United States.

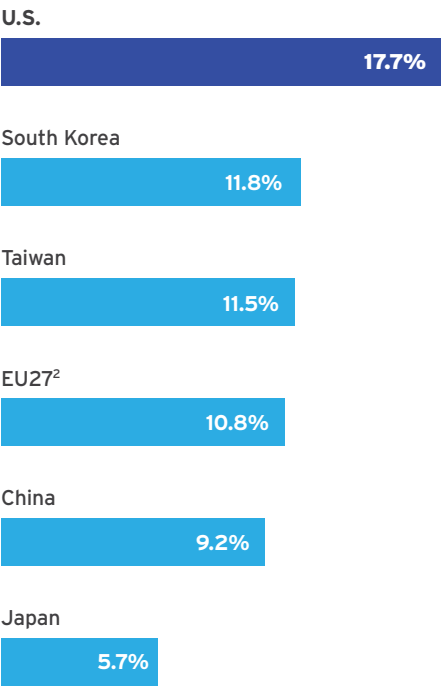


## R&D EXPENDITURES AS A PERCENTAGE OF SALES

### R&D Spend By Industry

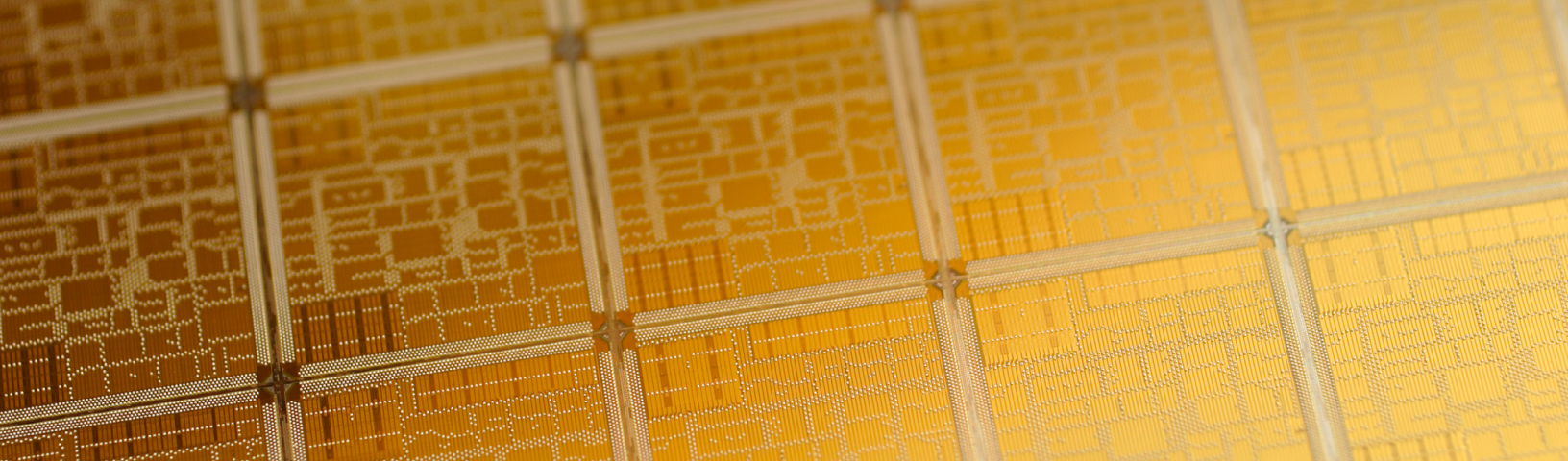


### Semiconductor Industry R&D Spend By Economy



Source: EU Commission, "2024 EU Industrial R&D Investment Scoreboard"

<sup>2</sup> The EU Scorecard's definition of Europe excludes Switzerland & the UK



## DESIGN

**Chip design is a critical R&D activity driving the function and value of semiconductor devices, enabling chips to receive, transmit, process, and store ever-increasing amounts of data for today’s digital world.**

Design is a highly complex, interdisciplinary process involving years of R&D, hundreds of millions of dollars of investment, and thousands of engineers. As chips have grown more complex, development costs have risen, especially for chips made on leading-edge manufacturing nodes.

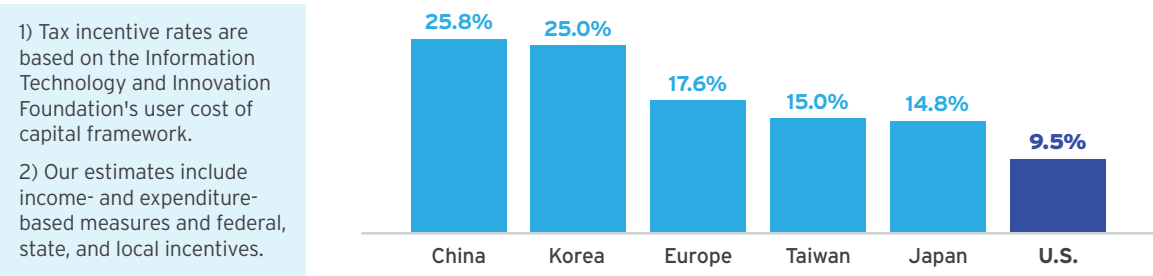
U.S. companies are currently the global leaders in design, but challenges are on the horizon – foreign governments are incentivizing chip design and R&D and seeking to supplant U.S. leadership. The U.S. currently trails its competitors in R&D tax incentive rates.

As noted, to ensure the U.S. is a competitive destination for companies to invest in semiconductor R&D, Congress should expand the existing Advanced Manufacturing Investment Credit to include chip design and research.

Sales are the ultimate source of funding for investment in design and R&D. Ensuring markets remain as open as possible will benefit U.S. semiconductor design leaders and maintain their innovative edge.

### R&D TAX INCENTIVE RATES, BY REGION, 2022

EXPRESSED AS A PERCENT REPRESENTS R&D TAX INCENTIVE RATES FOR ALL INDUSTRIES



Source: SIA/BCG

## WORKFORCE

### A skilled domestic workforce is vital to maintaining U.S. leadership in semiconductors.

Today, the chip industry directly employs around 345,000 people across chip design, electronic design automation (EDA), semiconductor fabrication, and equipment production. Beyond that, semiconductors power more than 300 downstream industries.<sup>3</sup>

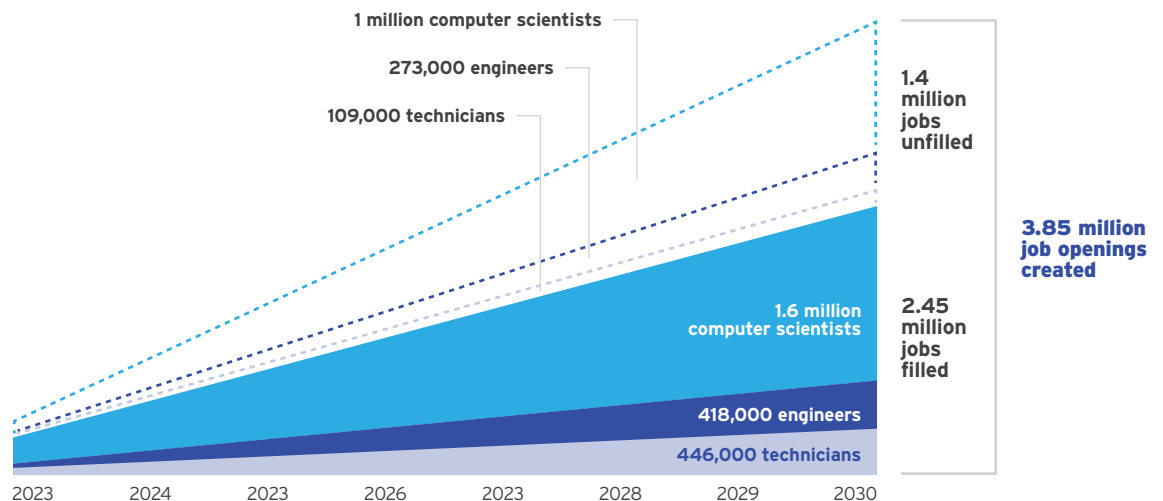
As America's semiconductor ecosystem grows in the years ahead, more qualified workers will be needed to fill jobs. According to an SIA-Oxford Economics study, the United States faces a significant shortage of technicians, computer scientists, and

engineers, with a projected shortfall of 67,000 of these workers in the semiconductor industry by 2030 and a gap of 1.4 million such workers throughout the broader U.S. economy.

To address this talent challenge, government and industry should work together to build on our industry's longstanding workforce development efforts, expand the pipeline of STEM graduates in America, and retain and attract more of the top engineering students from around the world.

### ECONOMY-WIDE WORKFORCE GAP, 2023-2030

PROJECTED U.S. DEMAND FOR COMPUTER SCIENTISTS, ENGINEERS, AND TECHNICIANS

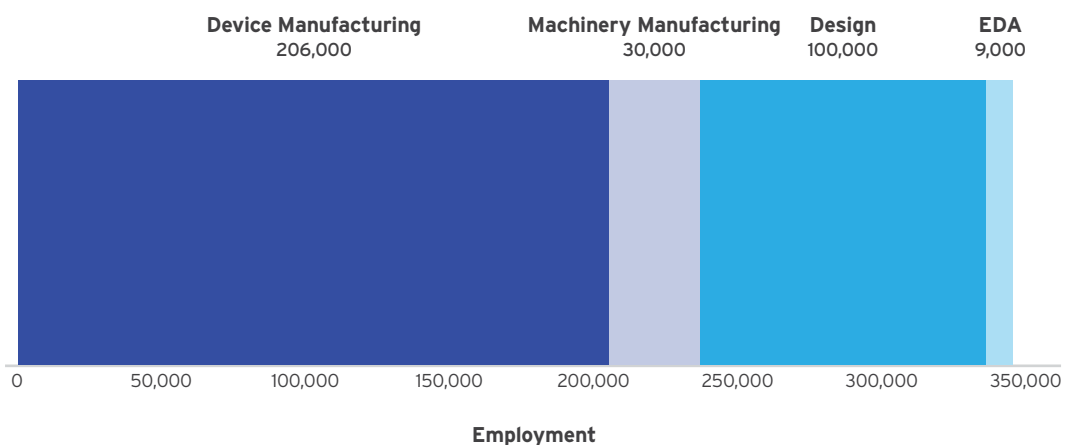


Source: CES, QCEW, Oxford Economics

<sup>3</sup> SIA, Chipping In: The U.S. Semiconductor Industry Workforce and How Federal Incentives Will Increase Domestic Jobs

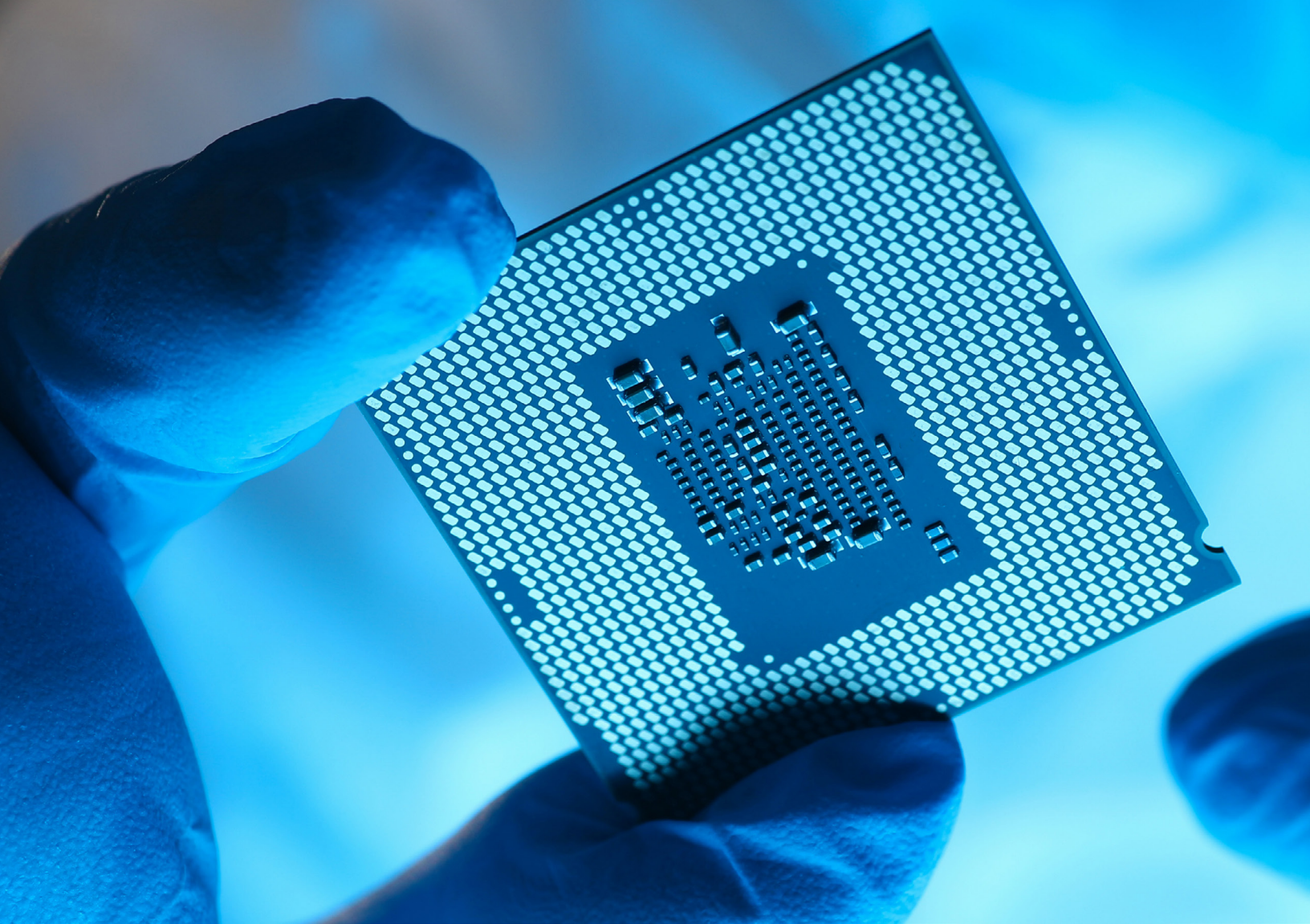


## U.S. SEMICONDUCTOR WORKFORCE BY FIELD, 2024



Source: CES, QCEW, Oxford Economics

A competitive domestic workforce and resilient manufacturing capabilities are critical to U.S. semiconductors leadership. Moreover, a strong domestic semiconductor industry is essential to the U.S. economy and national security.



The U.S. semiconductor industry accounts for about 345,000 direct jobs and nearly 2 million additional indirect and induced U.S. jobs.

ONE

U.S. semiconductor  
job supports

5.7

jobs in other parts  
in the U.S. economy...



**...THAT'S NEARLY**

**2,000,000**

**ADDITIONAL  
AMERICAN JOBS**

Source: SIA, 2025 Factbook

An aerial, top-down view of a semiconductor wafer, showing a complex grid of square dies. The entire image is overlaid with a blue color gradient. A prominent, dark, curved line, possibly a wire or a scratch, arcs across the middle of the frame from the left side towards the right. The text 'SECTION 2' is located in the lower right quadrant, above the main title.

SECTION 2

# AMERICA'S SEMICONDUCTOR SUPPLY CHAIN

# GLOBAL COMPETITION FOR SEMICONDUCTOR LEADERSHIP

Foreign governments provide significant financial incentives and a range of other support to strengthen their domestic semiconductor ecosystems, providing cost advantages for semiconductor manufacturing and chip design.

It is imperative for the U.S. to sustain public and private sector investments in the semiconductor industry to ensure America wins the technology race of the future.

To overcome longstanding cost disadvantages, it is crucial for the U.S. government to sustain appropriate tax and other incentives to drive future investments in the U.S. semiconductor ecosystem.

## EXAMPLES OF GOVERNMENT INCENTIVES BY MAJOR REGION, 2024

	U.S.	China	EU	Japan	South Korea	Taiwan
<b>Target</b>	Achieve resiliency in semiconductor supply chain	Reach 70% self-sufficiency by 2025	Gain 20% global share by 2030	Earn \$112B sales by 2030	Secure foothold in Logic, bolster fab leadership	Breakthrough 1 nm by 2030
<b>Guiding Policy</b>	CHIPS and Science Act	National IC Outline, 14 <sup>th</sup> Five Year Plan  Notice of Several Policies for Promoting the High-Quality Development of the Integrated Circuit Industry and the Software Industry in the New Era	Digital Compass 2030	Strategy for Semis and the Digital Industry	K-Belt Semiconductor Strategy	Angstrom Semiconductor Initiative, Moonshot program  Industrial Innovation Act
<b>Key Incentive Amounts</b>	\$39B in manufacturing grants  \$13B in R&D funding  35% Advanced Manufacturing Investment Credit	Over \$200B in subsidies  220% "super deduction" for chip R&D	\$47B in grants	\$17.5B in grants	\$55B in tax incentives	\$16B in tax incentives
<b>Key Initiatives</b>	Grants under the CHIPS Act State-level support	Big Fund I, II, and III Targeted national, provincial, and municipal-level IC funds State-owned enterprise leaders  National Natural Science Fund, National Venture Capital Guidance Fund, and National AI Industry Investment Fund	Grants and loans under EU Chips Act  Tax credits  State aid allowances	National fiscal funding  Leading-Edge Semiconductor Technology Center  Specified Semiconductor Funding Program and Subsidies	Tax incentives under K-Chips Act  Private-public education programs	Financial subsidies under the Chip Innovation Program  Industry-academia co-op, tax credits

Source: Gartner; SIA; Press releases; Company disclosures; Government websites; BCG analysis

# TRADE IN SEMICONDUCTORS

The semiconductor industry is highly globally integrated, spanning dozens of nations and thousands of suppliers.

The health and vitality of the U.S. semiconductor industry is dependent on our companies' ability to fulfill overseas demand.

Roughly 70% of U.S. semiconductor industry revenue comes from sales to overseas customers. To justify and support long-term, capital-intensive investments in U.S. semiconductor production, chipmakers need confidence their products will have access to global markets and a global customer base, in addition to robust domestic demand.

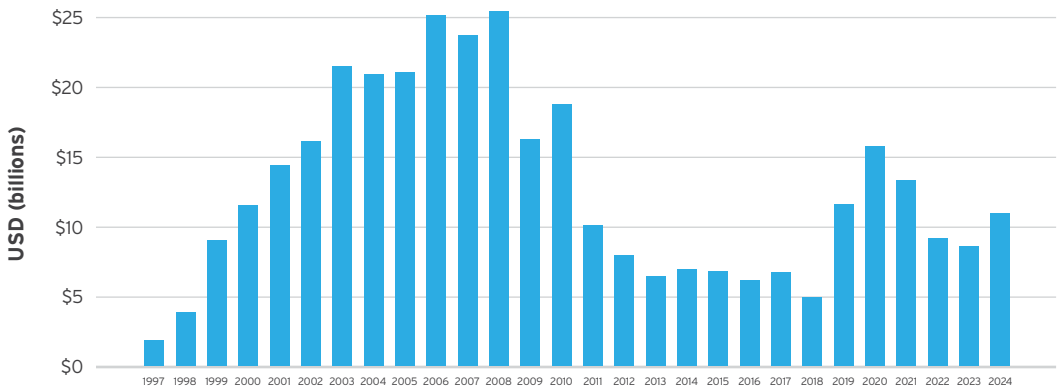
To maintain U.S. semiconductor leadership - which underpins U.S. leadership in critical downstream technologies like AI, automotive, telecommunications, healthcare, defense and aerospace and beyond - the United States must pursue trade negotiations and other economic measures and initiatives that:

1) ensure semiconductor production in America is cost-effective; 2) boost downstream demand; and 3) increase the market base for U.S. chips around the world.

Semiconductors are historically a top U.S. export, running a healthy trade surplus for nearly three decades. Pursuing a sectoral arrangement on semiconductor technologies and key downstream products will promote demand for American chips and contribute to more secure and stable supply chains. Likewise, working with partners to build supply chain capabilities that complement and support industry operations in the U.S. - including diverse and secure sourcing alternatives for upstream semiconductor materials, such as critical minerals and specialized chemicals - will make the U.S. industry stronger.

## U.S. TRADE SURPLUS IN SEMICONDUCTORS, 1997-2024

BASED ON HARMONIZED SCHEDULE HEADINGS 8541 (EXCLUDING SOLAR PRODUCTS) AND 8542



Source: USITC, DataWeb, accessed on March 4, 2025.



# U.S. SEMICONDUCTOR INDUSTRY DOMESTIC ECONOMIC CONTRIBUTION

## Semiconductors continue to be one of America’s top exports.

The U.S. semiconductor industry has held the pole position in the global market for the past several decades and currently commands 50.4% market share in chip sales globally. U.S. exports of semiconductors totaled \$57.0 billion in 2024, ranking sixth behind exports of refined oil, crude oil, aircraft, natural gases, and autos.

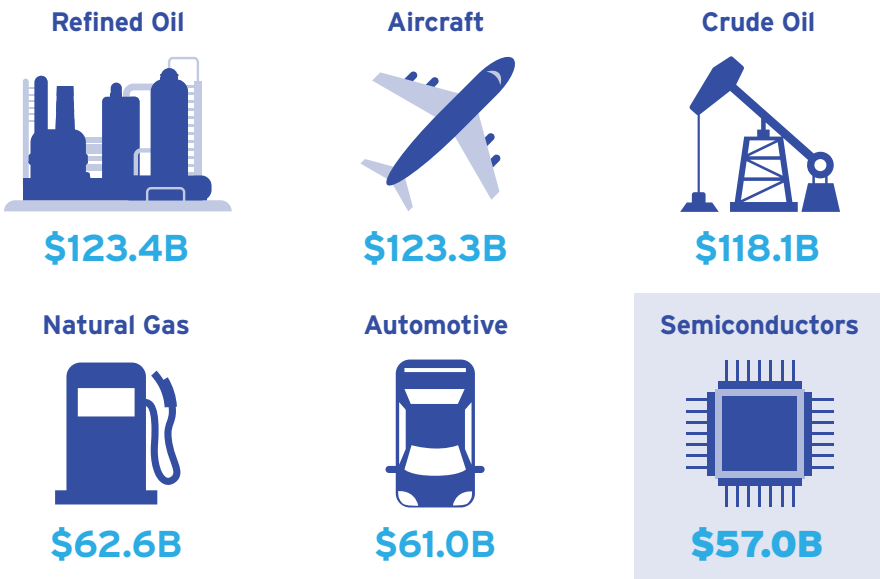
Similar to the growth seen in the overall semiconductor market, U.S. exports of chips

increased by 13% in 2024, which helped the industry retain the top-6 position. Looking forward, growth for the U.S. chip industry looks to be promising, with projections of double-digit growth in 2025.

Looking ahead, the domestic industry’s growing capacity will continue to benefit from massive domestic investments, enhancing U.S. semiconductor export potential.

### U.S. EXPORTS

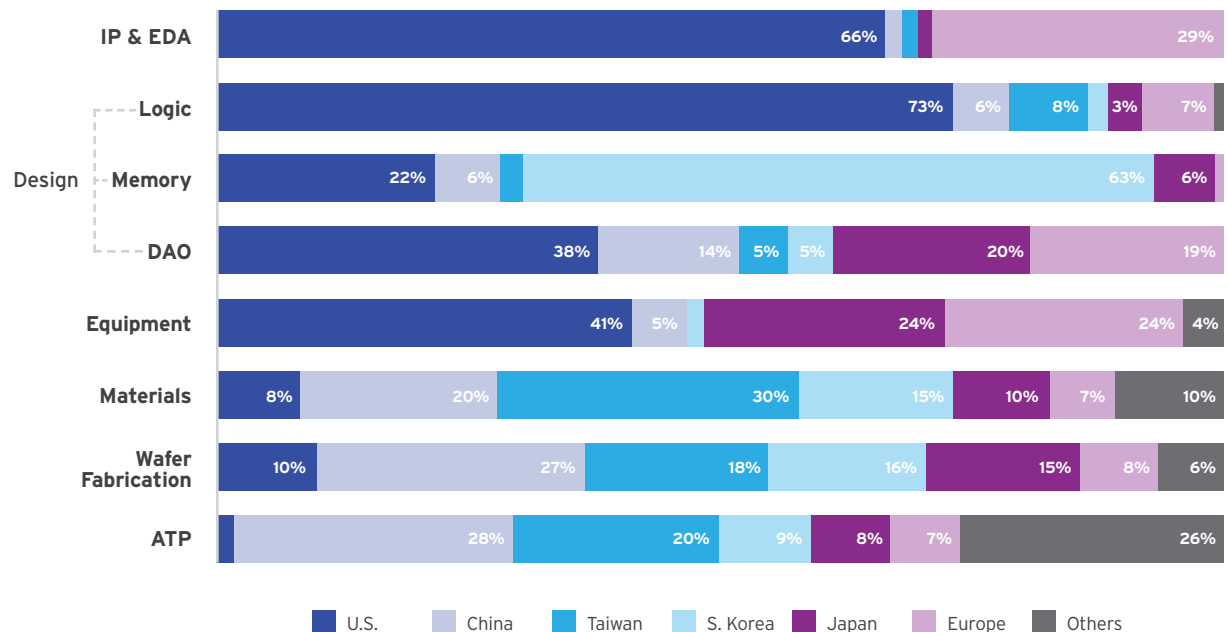
BASED ON TOTAL EXPORTS USING NAICS NATIONAL INDUSTRY CODES



Source: USITC, Dataweb, accessed on March 4, 2025.

## SUPPLY CHAIN VALUE ADDED BY COUNTRY AND REGION

### SEMICONDUCTOR INDUSTRY VALUE ADDED BY ACTIVITY AND REGION 2024 (%)<sup>4</sup>



Source: IPnest; Wolfe Research; Gartner; SEMI; BCG analysis

A 2024 SIA-Boston Consulting Group (BCG) report illustrated the degree of specialization in the global semiconductor supply chain. For example, U.S.-headquartered companies lead in design and core IP, and command almost half the global market share in semiconductor manufacturing equipment (SME). Most of the remaining global market share for SME is in allied countries, including the Netherlands and Japan, whose companies conduct significant manufacturing and R&D in the United States. SME and building systems account

for the majority of the cost of building a fab. For materials used in semiconductor manufacturing – such as bare and epi wafers, photoresist chemicals, photomasks, gases, wet chemicals, substrates, lead frames, etc. – U.S. semiconductor manufacturers rely principally on suppliers from Taiwan, Japan, South Korea, and China. Ensuring U.S. industry retains cost-competitive access to the manufacturing tools and materials is critical to supporting continued investments in domestic chips capacity.

<sup>4</sup>EDA, design, manufacturing equipment, and raw materials based on company revenues and company headquarters location. Wafer fabrication and Assembly & testing based on installed capacity and geographic location of the facilities.

The background of the entire page is a blue-tinted image of a semiconductor chip. A large, dark blue circular graphic is positioned on the left side, partially overlapping the chip image. The chip itself shows a grid of square dies with intricate circuit patterns.

SECTION 3

# **AMERICA'S SHARE OF THE GLOBAL SEMICONDUCTOR MARKET**

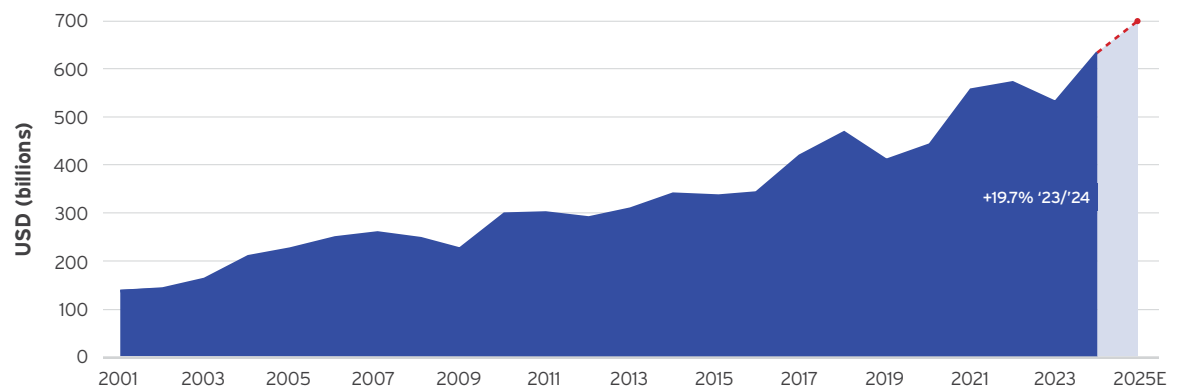
# GLOBAL SEMICONDUCTOR SALES

**Over the past three decades, the semiconductor industry has experienced rapid growth and delivered an enormous economic impact.**

Chip performance and cost improvements enabled the evolution from mainframes to PCs in the 1990s, the web and online services in the 2000s, and the smartphone revolution in the 2010s. Looking ahead, the growth of artificial intelligence, electric and autonomous vehicles, and advanced manufacturing – all of which

rely on semiconductors – will, in turn, fuel the expansion of the semiconductor market over the next decade. By 2030, AI alone is projected to contribute more than \$15 trillion to the global economy. Semiconductors are essential to our modern world, which is why long-term market demand for semiconductors remains strong.

**GLOBAL SEMICONDUCTOR SALES, 2001-2025 (E)**



Source: WSTS

Global semiconductor sales hit \$630.5 billion in 2024, beating initial forecasts and topping \$600 billion in annual sales for the first time. Regionally, 2024 yearly sales were up in the Americas (45.2%), China (20.0%), and Asia Pacific/All Others (12.2%), but down in Japan (-0.3%), and Europe (-8.1%).

Several semiconductor product segments related to high-performance compute had stellar performance in 2024. Sales of logic products totaled \$215.8 billion in 2024, making it the largest product category by sales. Memory products were second in terms of sales, increasing by 78.9% in 2024 to a

total of \$165.5 billion. DRAM products, a subset of memory, recorded an 82.6% sales increase, the largest percentage growth of any product category in 2024.

Throughout the year, sales were significantly higher than 2023. Global sales in 2024 were at least 15% higher each month when compared to the same month in 2023. This increase was largely due to increased demand for chips in AI, autos, and industrial

applications. However, mature-node chip shipment revenue declined 7.4% from 2023 to 2024. Overall, sales in 2024 increased by 19.6% compared to sales in 2023.

Estimates from the World Semiconductor Trade Statistics (WSTS) project that worldwide semiconductor industry sales will increase to \$701 billion in 2025, marking growth of 11.2% compared to 2024.

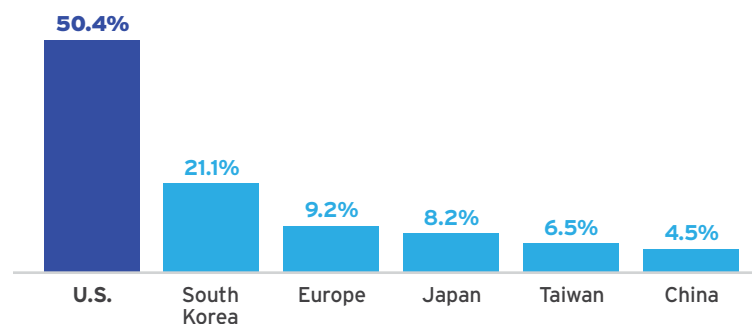
## U.S. MARKET SHARE

The U.S. semiconductor industry commands half the global market and on average has displayed steady annual growth.

Since the late 1990s, the U.S. has been the global sales market share leader for chips. In 2024, the U.S. semiconductor industry continued that trend, with U.S. headquartered companies reaching sales of \$318 billion, accounting for 50.4% of global sales revenue. In addition, U.S. semiconductor firms maintain a leading or highly competitive position in R&D, design, and manufacturing process technology.

This leadership also allows the U.S. semiconductor industry to benefit from a virtuous cycle of innovation. America's semiconductor industry's global sales leadership fuels R&D investment, which, in turn, widens U.S. technological dominance, thereby perpetuating America's position as a global sales leader. As long as the U.S. semiconductor industry maintains global market share leadership, it will continue to benefit from this virtuous cycle of innovation.

### GLOBAL MARKET SHARE BY COMPANY HQ



Source: World Semiconductor Trade Statistics (WSTS), Gartner, Omdia, and SIA Estimates.

### VIRTUOUS CYCLE OF INNOVATION



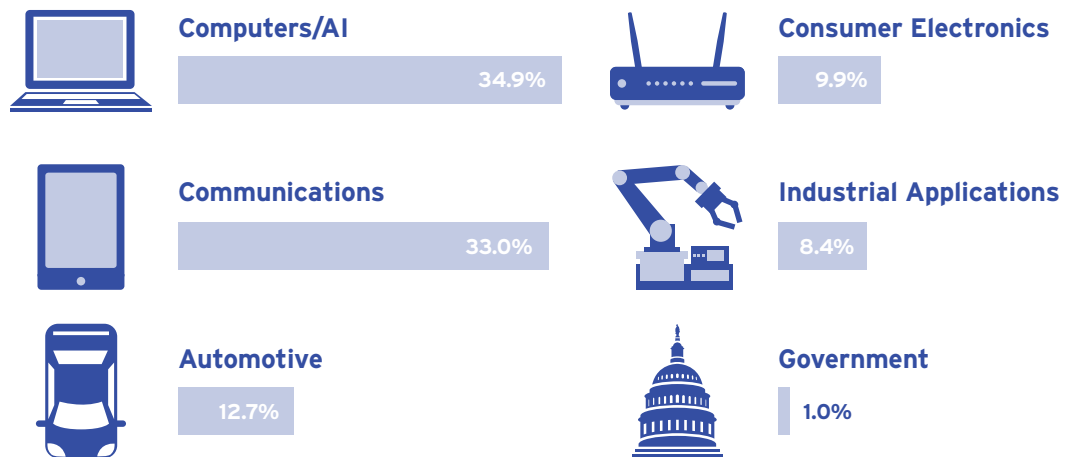
## SEMICONDUCTOR DEMAND DRIVERS

Over the next decade, further innovation in semiconductor technology will enable a host of transformative technologies, including AI, 5G/6G communications, quantum computing, advanced manufacturing, robotics, and many others. Indeed, long-term growth drivers for semiconductor demand are firmly in place.

The 2024 growth in sales stemmed from increased sales to and growing demand for chips critical to AI systems. The changes among these demand drivers resulted in shifts to the amount of global sales revenue attributed to each market sector. Most notably, the computer

market's share of chip sales increased by 10% from 2023 to become the largest segment in 2024. Other segments showed varied sales performance: communications, consumer electronics, and government sectors saw increases, while auto and industrial sales declined.<sup>5</sup> Semiconductors continue to see robust demand growth and global sales remain on course to potentially reach \$1 trillion by 2030.<sup>6</sup> To meet the increasing demand for chips this decade, companies throughout the semiconductor supply chain have committed over half-a-trillion dollars in new investments in the United States.<sup>7</sup>

### TOTAL GLOBAL DEMAND SHARE BY END USE, 2024



Source: WSTS, 2024 End Use Survey

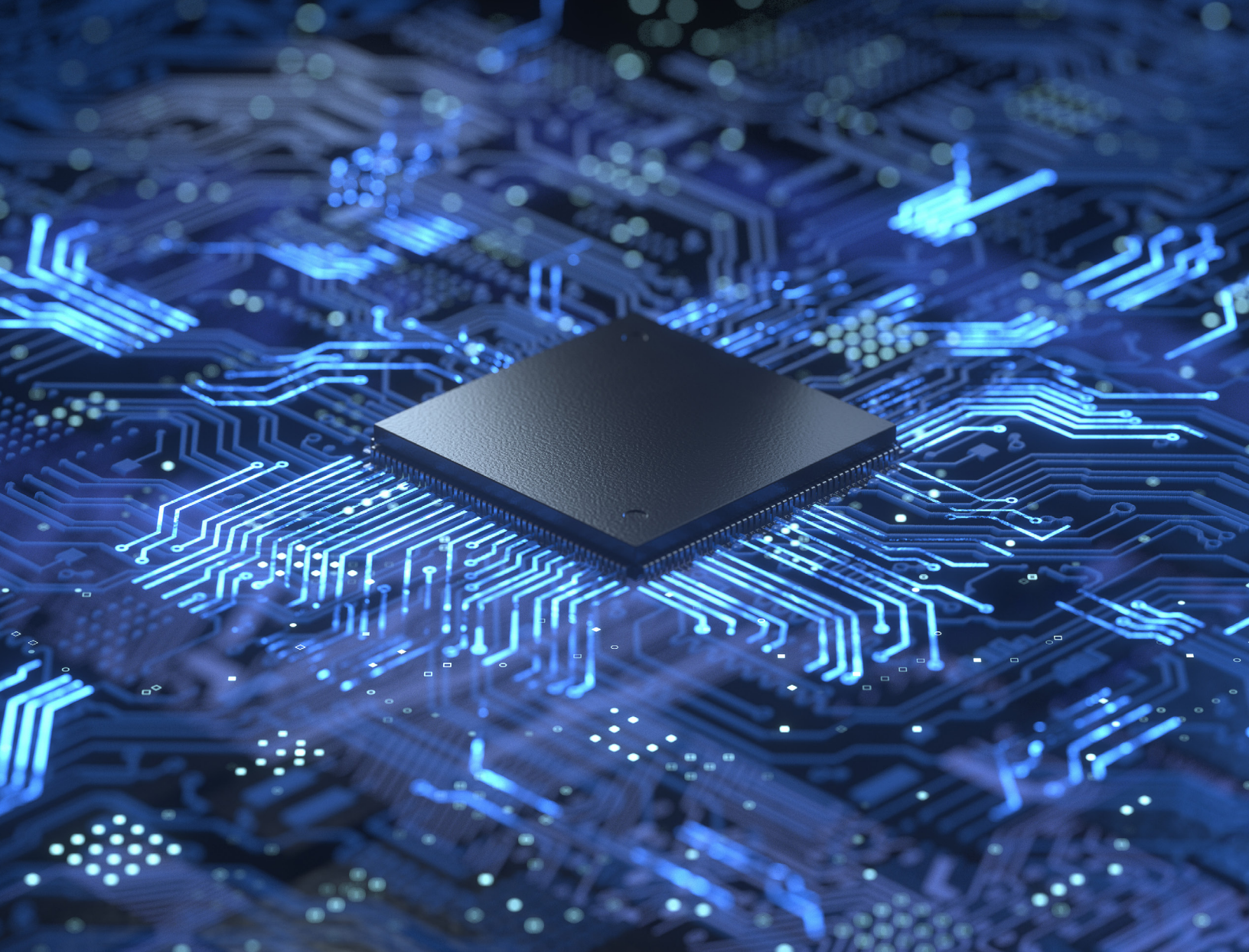
**Innovation in artificial intelligence accelerated in 2023 and continued throughout 2024, driving increased demand for related semiconductors. Consequently, semiconductor revenue in the computer end-use market saw a boost.**

**Looking ahead, we project strong demand for AI-related semiconductor devices in 2025 and 2026 as new applications emerge and end-customers increasingly benefit from newly developed services.**

<sup>5</sup> WSTS, "End-Use Survey."

<sup>6</sup> Achieving \$1 trillion in annual semiconductor shipments by 2030 will require an average yearly growth of 8%.

<sup>7</sup> See SIA's Semiconductor Supply Chain Investments Tracker at <https://www.semiconductors.org/chip-supply-chain-investments/>.



## U.S. SEMICONDUCTORS ENABLE AI

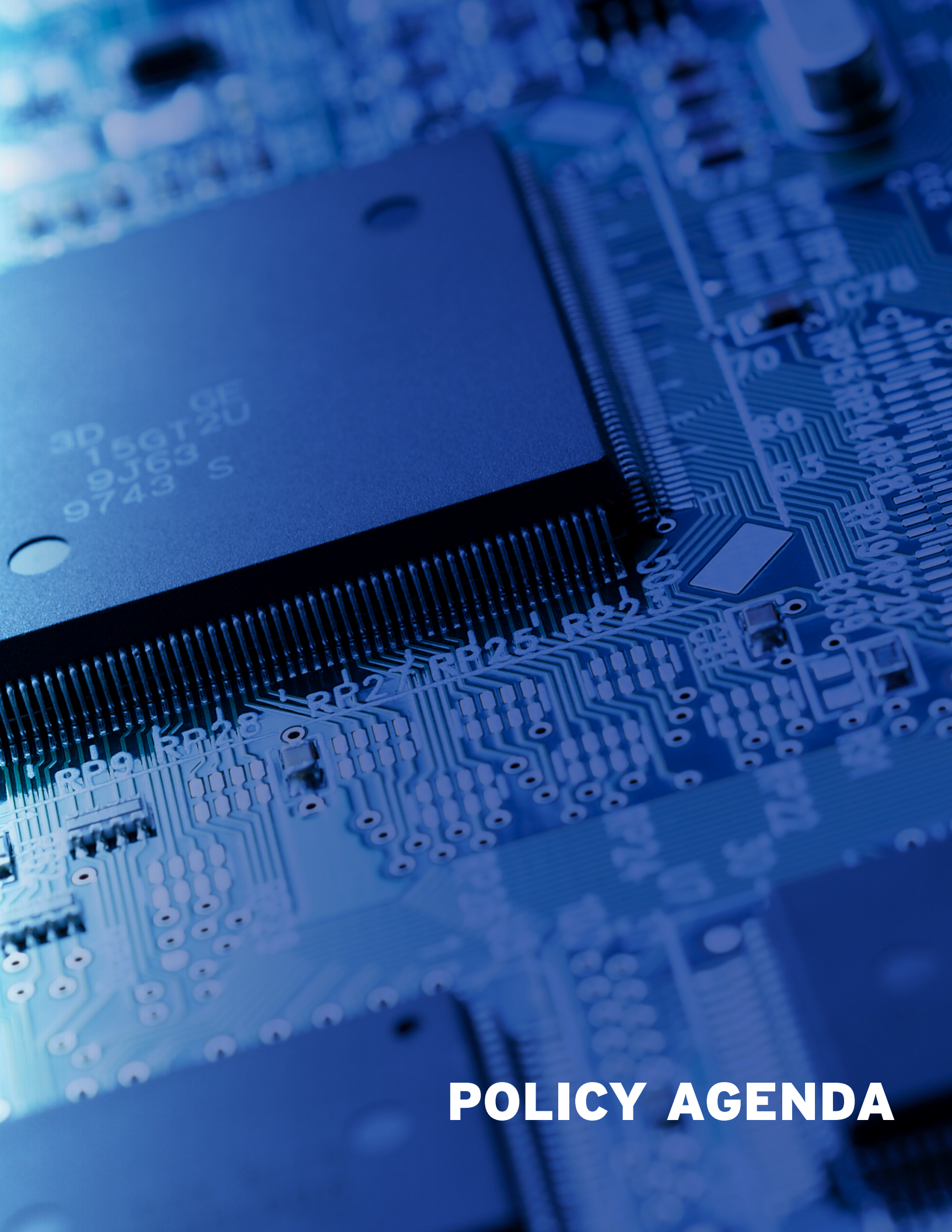
AI is revolutionizing core sectors of the economy, including healthcare, agriculture, defense, communications, manufacturing, transportation, and others.

Semiconductor technology comprises the computing, memory, and networking backbone that powers and enables AI systems. A single AI server comprises thousands of chips from across the semiconductor technology stack - CPUs, high-bandwidth memory, connectivity and networking chips, power management chips, analog-to-digital and digital-to-analog converters, and many others - all

centered around an AI accelerator, such as a GPU, ASIC, or FPGA.

These chips deliver the computational power necessary to train and deploy complex AI models at scale. Together, the entire semiconductor supply chain enables the production of AI systems.

As AI continues to drive demand for chips and transform economic sectors in the future, strengthening semiconductor capabilities is critical to unlocking the full potential of AI technologies and extending America's global technology leadership.



# **POLICY AGENDA**

A detailed, colorful microscopic image of a semiconductor chip, showing various circuitry patterns in shades of blue, green, orange, and red.

# WINNING THE CHIP RACE

**A successful American semiconductor industry is foundational for shared goals of strengthening U.S. national security and manufacturing while enhancing America's ability to compete and win on the global stage.**

**SEMICONDUCTOR MANUFACTURING INCENTIVES & R&D INVESTMENTS:** Advance incentives for U.S. chipmaking and investments in American innovation so the industry can remain globally competitive

**TAX:** Ensure the U.S. remains a competitive tax destination to invest in semiconductor research, design, and manufacturing

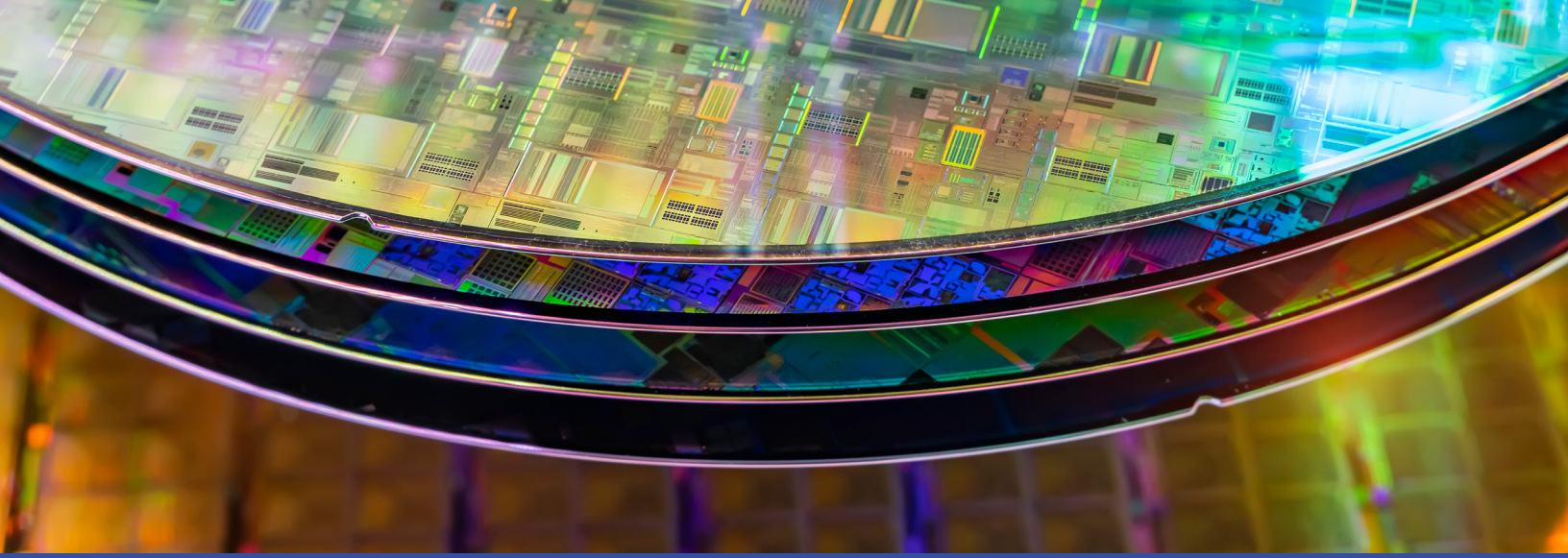
**RESEARCH:** Support existing R&D initiatives and grow federal investment in semiconductor research and basic research across the physical sciences to enable U.S. technology leadership and win technologies of the future

**WORKFORCE AND IMMIGRATION:** Grow the talent pipeline by developing, attracting, and retaining a high-skilled workforce

**TRADE & SUPPLY CHAIN RESILIENCE:** Restore U.S. trade leadership, build strong and complementary global chip supply chains, and facilitate access to new and growing markets

**EXPORT CONTROLS & TECHNOLOGY RESTRICTIONS:** Ensure policies are carefully calibrated and targeted, effective, and do not undermine the interests they are designed to protect

**ENVIRONMENTAL & ENERGY REGULATION:** Streamline regulatory and permitting requirements to promote innovation and industry growth, protect workers and the environment, and support American energy strength domestically and around the world



## METHODOLOGY

This report is based on data developed independently by the Semiconductor Industry Association and in conjunction with the Boston Consulting Group and Oxford Economics. Figures pertaining to the industry's employment are based on data from the U.S. Census Bureau and the U.S. Department of Labor. Figures regarding the industry's international trade activity are based on an analysis of official U.S. government trade data from the U.S. international Trade Commission. Figures regarding industry manufacturing, capacity, and capital spending are based on data from TechInsights, New York University, McKinsey, The Economist, Tokyo Electron, J.P. Morgan, and IC Insights. Market data is based on World Semiconductor Trade Statistics data. Industry R&D data is based on company financial reports, as well as data from New York University. Lastly, data for the industry job multiplier, GDP contribution, and labor income are based on an Input- Output model developed by IMPLAN.

## ABOUT SIA

The Semiconductor Industry Association (SIA) is the voice of the semiconductor industry, one of America's top export industries and a key driver of America's economic strength, national security, and global competitiveness. Semiconductors - the tiny chips that enable modern technologies - power incredible products and services that have transformed our lives and our economy. The semiconductor industry directly employs over a third of a million workers in the United States, and U.S. semiconductor sales totaled \$318 billion in 2024.

SIA members account for 99% of all U.S. semiconductor industry sales. Through this coalition, SIA seeks to strengthen leadership of semiconductor manufacturing, design, and research by working with Congress, the Administration, and key industry stakeholders around the world to encourage policies that fuel innovation, propel business, and drive international competition. Learn more at [www.semiconductors.org](http://www.semiconductors.org).



SEMICONDUCTOR  
INDUSTRY  
ASSOCIATION