

Where Will Tomorrow's AI Geniuses Go?

July 2025

By Nikolaus S. Lang, Leonid Zhukov, Etienne Cavin, and Johann Harnoss



BCG

BCG
HENDERSON
INSTITUTE

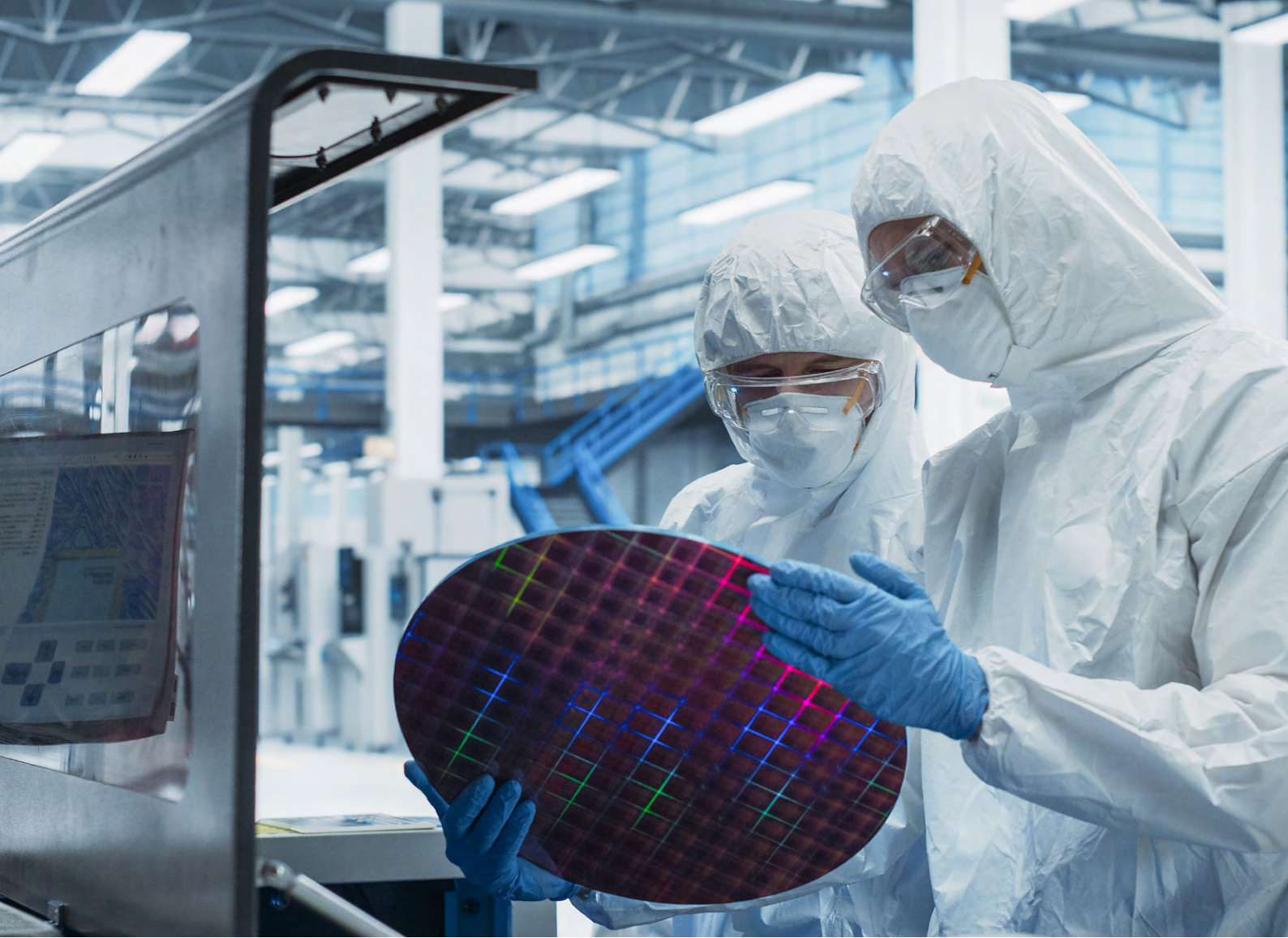


The world's best and brightest AI minds have long been drawn to the US. But as other countries increasingly seek to attract these researchers while retaining their own home-grown talent, the map of AI influence could shift.

Even a modest decline, by US standards, in the inflow of AI talent could significantly boost other countries' efforts to become tech innovation hubs. This would be particularly beneficial to the GenAI "middle powers"—including the EU, the UK, Canada, Japan, and some Gulf countries—that are hoping to compete as global suppliers of the technology.

The opportunity is ripe for those that bet on research breakthroughs as sources of competitive advantage. In fact, the stakes for attracting top AI research talent—the AI geniuses of tomorrow—will only increase as GenAI foundation models continue to become commoditized. In this end state, innovation will be the main differentiator, and countries able to capitalize on the shift stand to win the most.

The global competition for AI talent is not new, but its intensity has increased as a result of changing US policies. While many CEOs are understandably focused on tariffs and the rising cost of data center expansion in the US, we believe that changes in immigration policies and public funding for R&D may have greater long-term effects on global competition for AI leadership.



Amid Tariff Uncertainty, US Tech Giants Forge Ahead

On April 1, 2025, the US Department of Commerce opened an investigation into the national security implications of importing semiconductors and semiconductor manufacturing equipment. The results—which as of this writing are still pending—will determine the tariff rate applied to semiconductors and servers, directly impacting the cost of data center expansion in the US and the availability of computing power. (Servers account for more than half of a US AI data center’s total cost of ownership.)

Despite this uncertainty, recent moves by US tech giants suggest that tariffs will not undermine the US’s global lead in computing power. As of February 2025, Microsoft, Alphabet, Amazon, and Meta were set to collectively spend more than \$320 billion in capex this year, about 30% more than they spent in 2024. And following the Trump Administration’s reciprocal tariffs announcement on April 2, earnings calls for the first quarter of 2025 showed no signs of the US tech giants scaling back their AI infrastructure spending. In fact, Meta increased its 2025 capex guidance from between \$60 billion and \$65 billion to between \$64 billion and \$72 billion—a revision that implicitly prices the all-in tariff effect at 6% to 10% of construction cost.

This is partly a sensible “wait and see” response on the part of US tech giants. But it’s also unsurprising in light of other, tariff-independent factors. First, there’s the sheer capital power of these companies, which allows them to absorb the higher costs of data center expansion for the sake of what they openly regard as an existential imperative of AI supremacy. Second, with the Trump Administration’s repeal of the Biden-era AI Diffusion framework, US hyperscalers are virtually unconstrained in terms of pursuing data center expansion in other countries.

Furthermore, TSMC’s expanding production footprint in the US could reduce exposure to tariffs for US data centers relying on leading-edge semiconductors and servers, including those designed by Nvidia that are currently manufactured abroad.

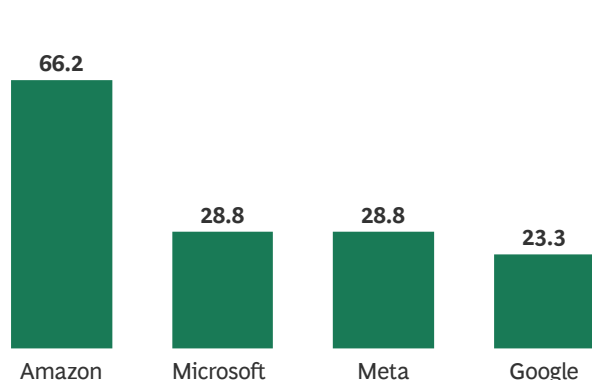
US hyperscalers—and leading GenAI developers such as OpenAI, Anthropic, and xAI—are also starting with a sizable lead in both capital and computing power compared to companies in other countries. (The same is true when it comes to installed computing power capacity in the US, which reaches 40 gigawatts, compared to 8 gigawatts in the EU as a whole, for example.) US hyperscalers collectively sit on \$145 billion in cash, and leading GenAI players in the US have raised over \$59 billion in the last twelve months alone—more than 23 times as much as the three largest non-US GenAI developers combined. (See **Exhibit 1**.)

Against that background, we expect the US to hold its lead in capital and computing power—two huge sources of advantage in the global GenAI race.

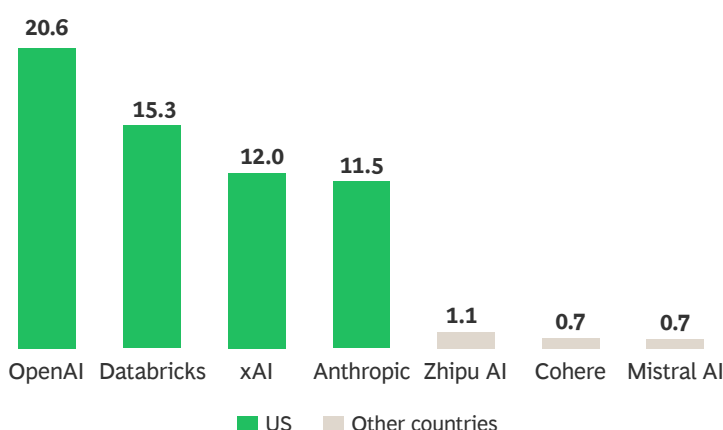
EXHIBIT 1

US Tech Giants Have the Funds to Expand Computing Power, as Do US GenAI Developers

CASH ON HAND FOR US TECH GIANTS (\$BILLIONS)¹



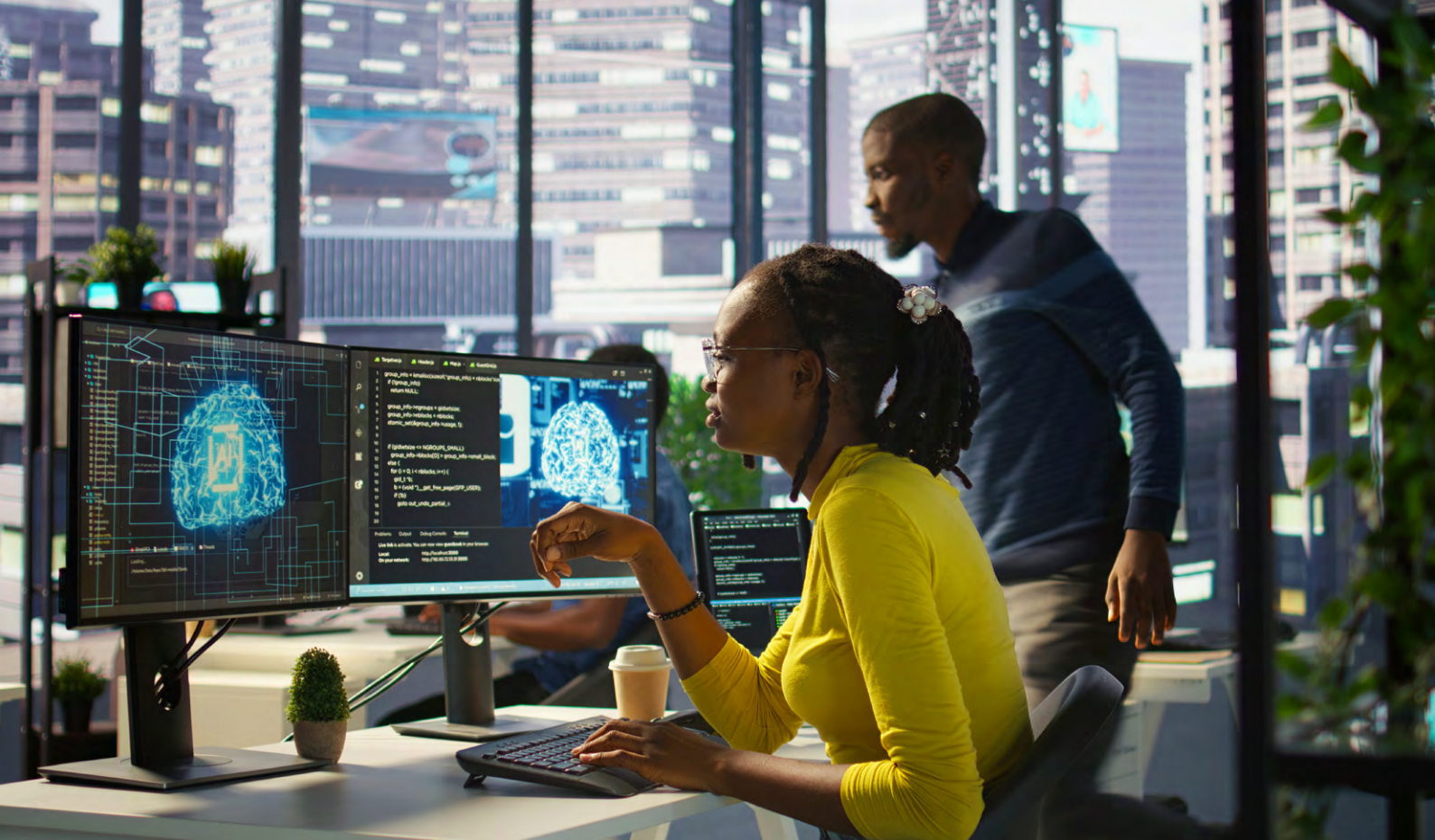
FUNDS RAISED BY LEADING GENAI LABS (TTM, \$BILLIONS)²



Sources: Tracxn; company reports; Crunchbase; Reuters; DatacenterDynamics; BCG Henderson Institute analysis.

¹As of May 2025.

²TTM = trailing twelve months for period ending May 20, 2025. For OpenAI, figure includes \$10 billion in upfront investment from the total of \$40 billion raised in April 2025; the remaining \$30 billion is slated for later in 2025, partly conditional on OpenAI’s converting into a for-profit company.



The Impact on AI Talent

When we consider the potential effects of recent US policy shifts on another key enabler of GenAI strength—talent—the picture gets more complex. Here, an important distinction needs to be made between the workers who have the technical training to develop and implement AI solutions and the researchers (usually with advanced degrees in computer science and related fields) who collectively push the technological frontier.

While new US policies on immigration will likely result in a decrease of foreign talent coming to the US, in our view these changes are not likely to materially undermine the US's ability to retain and attract AI workers in the near future. But those same policy shifts, coupled with reductions in public R&D expenditures, could have a significant effect on the next generation of AI geniuses—the smaller yet disproportionately important group of top AI researchers who have for decades flocked to US academic institutions.

The Larger Talent Pool: The Overall AI Workforce

Over the past three years, the US saw a net inflow of 32,000 foreign AI workers, or roughly 7% of the country's total pool (488,000 as of 2025).¹ These workers are even more important to leading US tech corporations—where, in aggregate, they occupy nearly 40% of US-based, AI-related roles. (See **Exhibit 2**.)

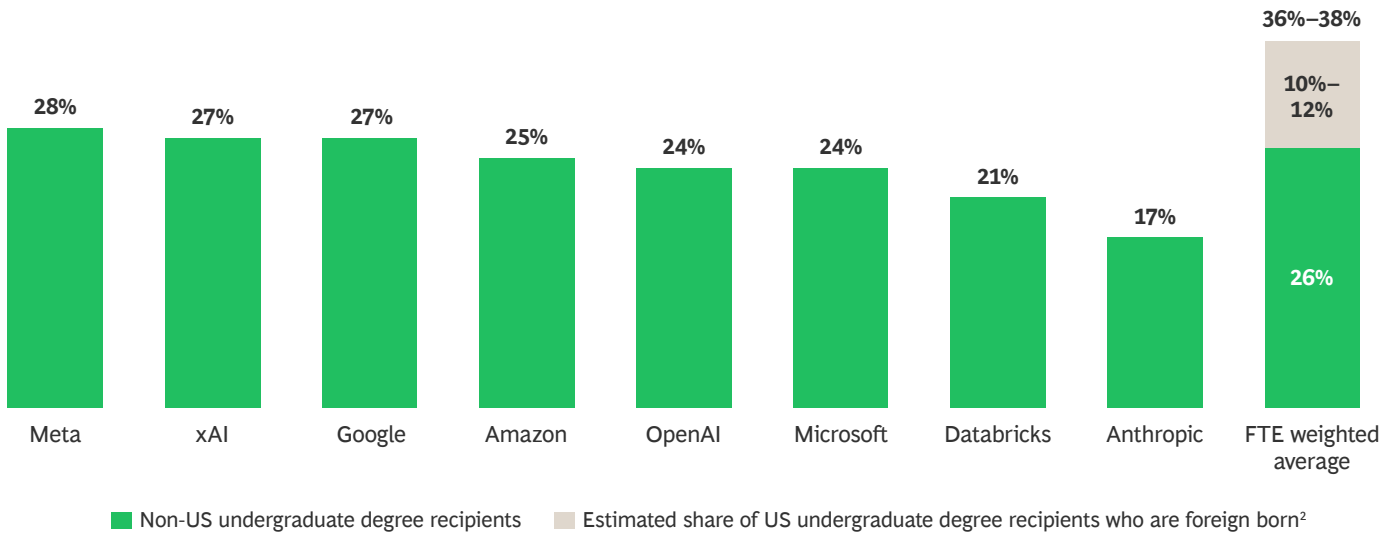
Given their critical role in the AI workforce, an exodus of foreign workers already in the US—or a decline in attractiveness of US-based roles for qualified immigrants—could pose a serious risk for US tech firms. Indeed, some reports have pointed to statistics showing declining tech talent flows into the US as a sign that this risk is already materializing.² But this trend predates recent changes in US policy by more than two years. More importantly, it's largely attributable to declining hiring rates in the US tech sector and lower levels of overall global talent mobility over that same period. (See **Exhibit 3**.)

1. AI specialists are defined as workers with knowledge in deep learning, computer vision, reinforcement learning, and neural networks, among other skills.
2. "Reports: US Losing Edge in AI Talent Pool," Semafor, May 2, 2025.

EXHIBIT 2

US GenAI Firms Have a Sizeable Share of Foreign-Born AI Workers

ESTIMATED SHARE OF US-BASED, AI-RELATED JOBS HELD BY FOREIGN NATIONALS AT LEADING US GENAI LABS¹



Sources: LinkedIn; university common data sets; BCG Henderson Institute analysis.

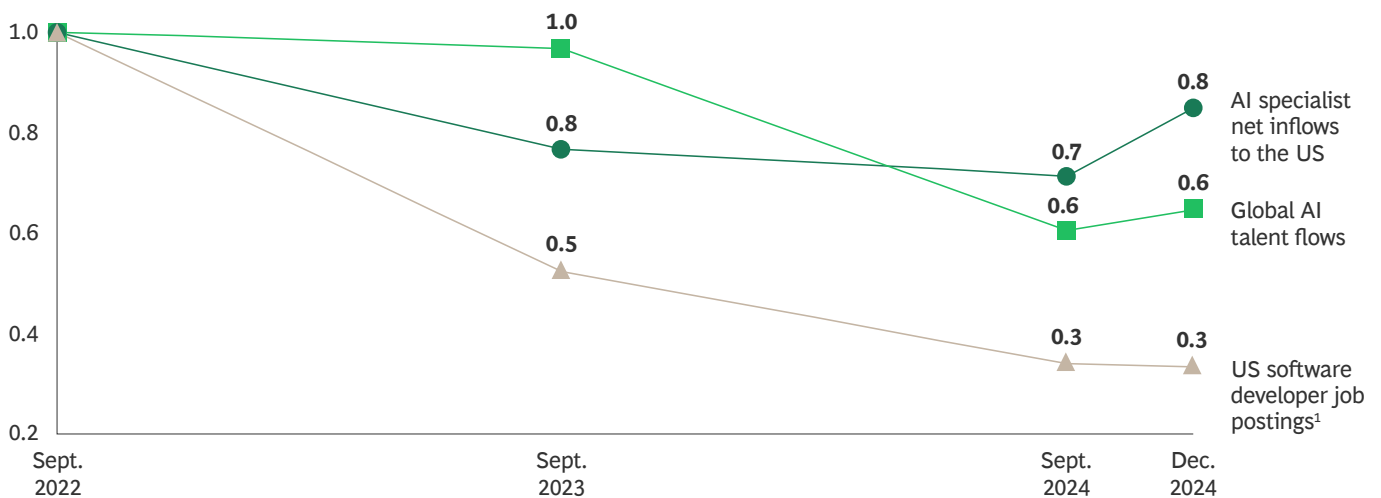
¹Based on country where undergraduate degree was obtained.

²Reflects the weighted average share of international undergraduate students at the US universities represented in the AI employee base of the companies shown in the chart.

EXHIBIT 3

Declining AI Talent Inflows to the US Have Been Driven by a Hiring Slowdown and Overall Reduced Mobility

INDEXED, SEPTEMBER 2022 = 1



Sources: Indeed (via Federal Reserve Economic Data); BCG Global Talent Tracker; BCG Henderson Institute analysis.

¹Daily software development job postings on Indeed in the US, averaged out over previous 12 months.

To get a clearer sense of what has happened so far this year, we surveyed a group of 40 senior recruiters at tech companies and talent agencies.³ They told us that US policy shifts have been showing up in discussions with prospective recruits, with most concerns being related to stricter immigration rules and processes. (See **Exhibit 4**.)

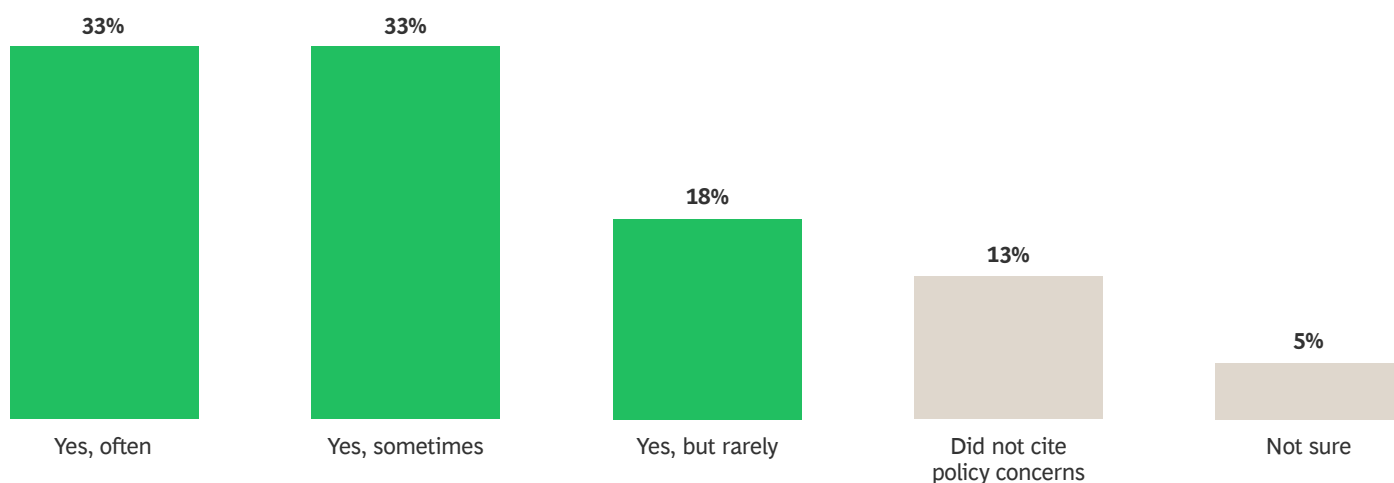
But when push comes to shove, immigration policy shifts haven't had a material effect on the attractiveness of US-based tech jobs, recruiters say. Some have noted more challenges attracting or retaining foreign nationals for such jobs—but a large majority have observed no change, or an actual improvement, in the attractiveness of US companies. The net effect, accounting for all these reported shifts, has been negligible in the last three months: a 1% decline in reported attraction and a 3% decline in retention for foreign nationals in AI-related, US-based roles.

EXHIBIT 4

Foreign AI Workers Have Concerns About US Policy Shifts

In the last three months, have non-US-based AI workers cited US policies or perceptions as negatively impacting their openness to relocating to the US?

(% OF SURVEYED RECRUITERS)



Source: BCG Henderson Institute survey.

Note: N=40. Survey conducted with senior in-house recruiters from top AI companies and RPOs/agencies working with highly qualified AI workers in May 2025. Because of rounding, percentages shown do not add up to 100%.

Admittedly, there is much greater variance among recruiters when asked about the next six to twelve months; a considerable share expect a slight downturn in the US's ability to attract and retain foreign AI workers over that period. However, very few expect the downturn to be significant. And for good reason. (See **Exhibits 5.1–5.4**.)

Despite the changing policy climate, the US remains a highly competitive destination for qualified foreign workers. According to H-1B visa application filings from 2024, salaries for technical AI roles at top US GenAI labs like OpenAI, Anthropic, and xAI are on average twice as high as

comparable roles at foreign peers such as Cohere (Canada), AI21 Labs (Israel), Mistral AI (France), Technology Innovation Institute (UAE), and G42 (UAE). This assessment may understate the gap in total compensation, which typically includes stock options and bonuses in addition to salaries.

The compensation gap could widen even more, as 60% of the recruiters we surveyed expect US tech companies to enhance financial compensation packages in the next year to attract the best talent.

3. Survey conducted between May 14 and May 30, 2025.

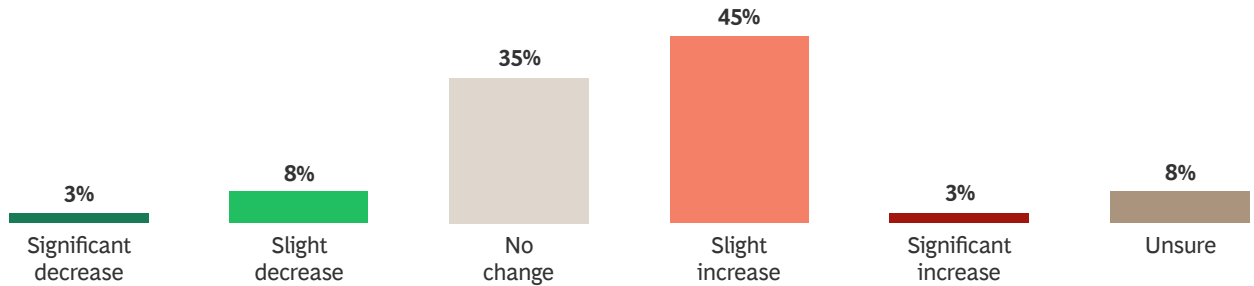
EXHIBIT 5.1

Recruiters Expect the US to Slightly Decline as an AI Talent Magnet in the Next Year

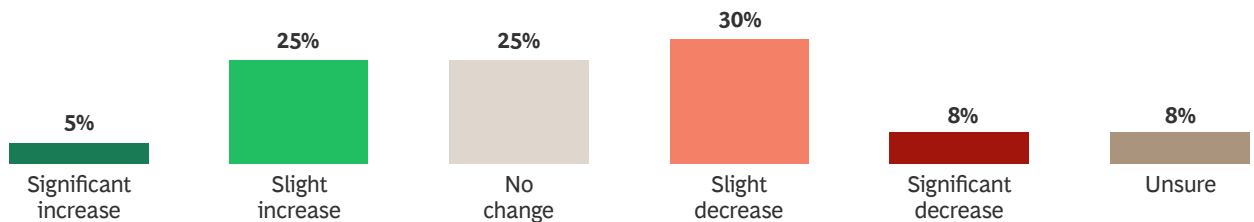
Expected change in the movement of AI workers to/from the US in the next 6–12 months

(% OF SURVEYED RECRUITERS)

Outflows



Inflows



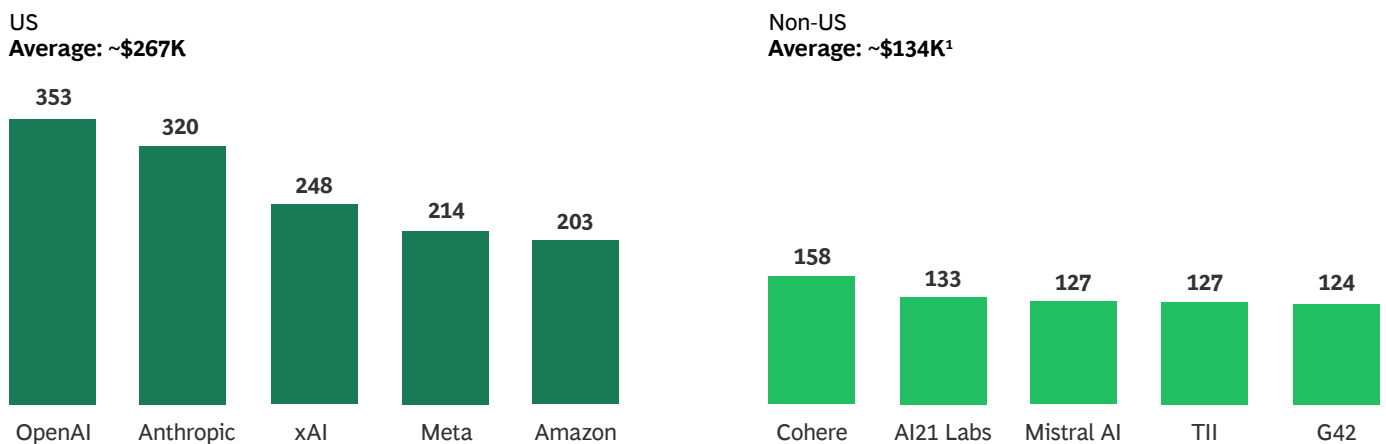
Source: BCG Henderson Institute survey.

Note: N=40. Survey conducted with senior in-house recruiters from top AI companies and RPOs/agencies working with highly qualified AI workers in May 2025. Because of rounding, percentages shown for each chart do not add up to 100%.

EXHIBIT 5.2

Salaries for AI Roles at Leading US Labs Are on Average Double Those of Non-US Labs¹

SALARIES FOR TOP AI-RELATED POSITIONS (\$THOUSANDS)



Sources: US Department of Labor; levels.fyi; BCG Henderson Institute analysis.

Note: Roles analyzed include “Member of the technical staff” for OpenAI, Anthropic, xAI; “AI Research Scientist” for Meta; “Applied Scientist III” for Amazon; “ML/AI Software Engineer” for Cohere, AI21 Labs, Mistral AI; “Machine Learning Engineer” for G42; “Software Engineer” for TII. Analysis does not include stock options and bonuses.

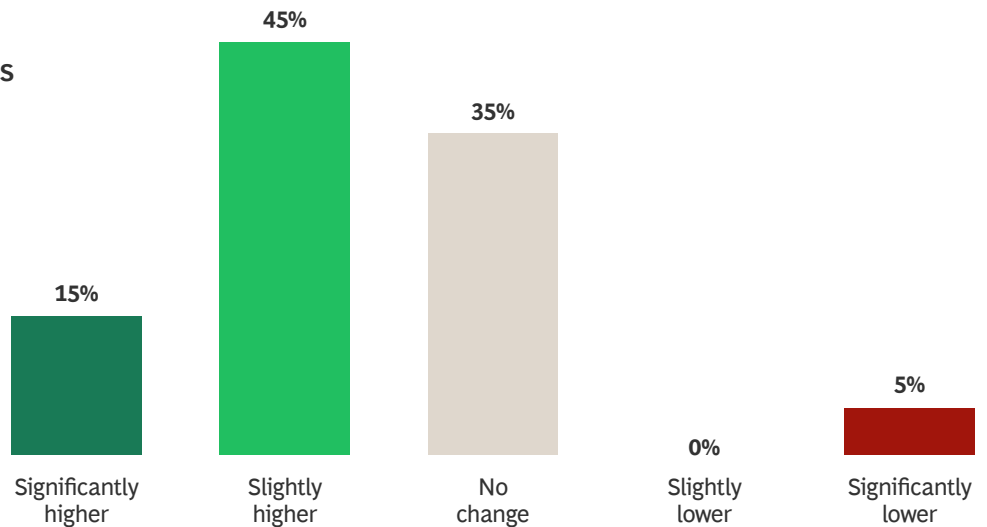
¹Excluding China.

EXHIBIT 5.3

Recruiters Expect US Tech Firms to Improve Financial Packages to Compensate for Policy Shifts

Expected change in salary and financial compensation offered by US companies to attract foreign AI workers in the next 6–12 months

(% OF SURVEYED RECRUITERS)



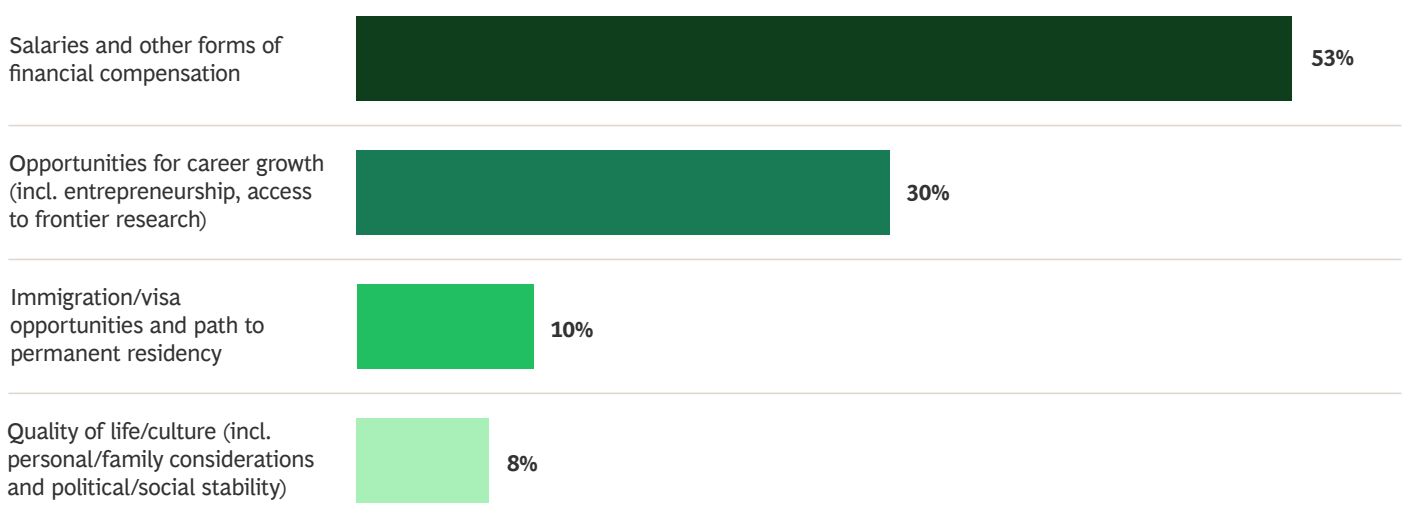
Source: BCG Henderson Institute survey.

Note: N=40. Survey conducted with senior in-house recruiters from top AI companies and RPOs/agencies working with highly qualified AI workers in May 2025.

EXHIBIT 5.4

Financial Compensation Remains the Leading Attraction for AI Workers

TOP FACTOR LEADING NON-US AI TALENT TO SEEK RELOCATION TO THE US (% OF SURVEYED RECRUITERS)



Source: BCG Henderson Institute survey.

Note: N=40. Survey conducted with senior in-house recruiters from top AI companies and RPOs/agencies working with highly qualified AI workers in May 2025. Because of rounding, percentages shown do not add up to 100%.

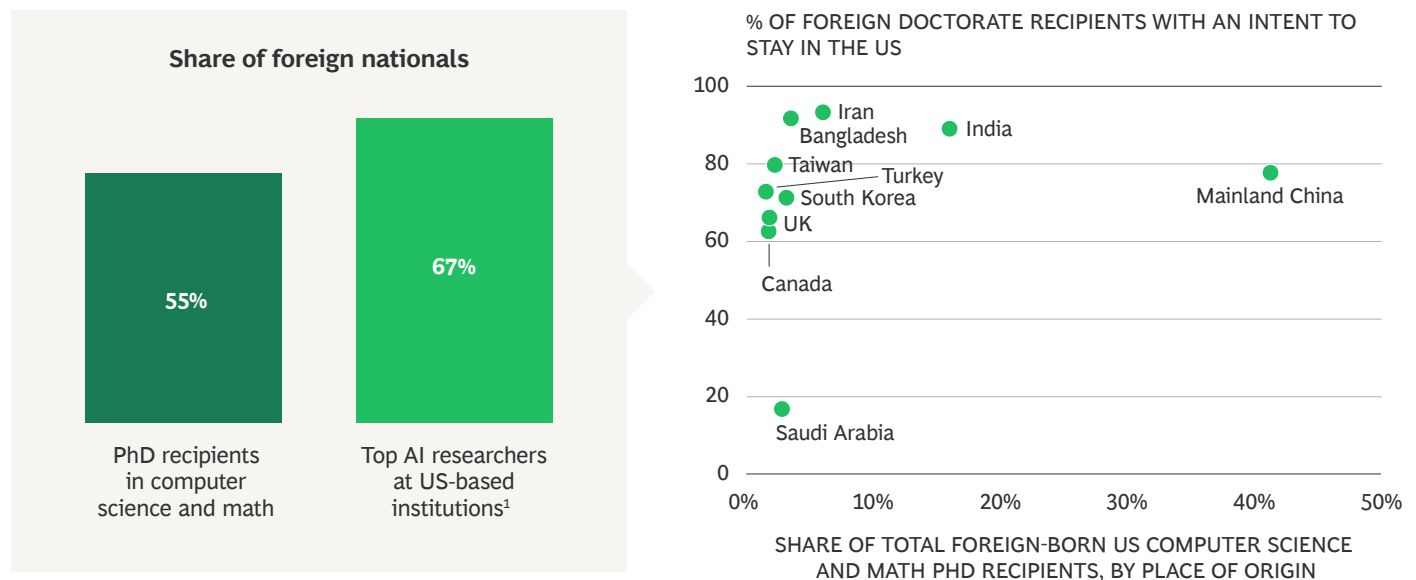
The Smaller Talent Pool: Top AI Researchers

The picture looks markedly different when we consider the much smaller pool of highly skilled academic researchers pushing the frontier of AI. There, the US is far more dependent on talent inflows from abroad than in the private sector. In 2023, foreign nationals accounted for 55% of all US doctorates in computer science and math, nearly three-quarters of whom were Chinese or Indian nationals. These highly specialized students tend to stay in the US after receiving their degrees, thereby contributing to the US innovation ecosystem. It's no surprise that, of the 100 most-cited US-based AI researchers, 67% are foreign nationals. (See **Exhibit 6**.)

This relatively small pool of academic researchers plays a vital role in the long arc of the GenAI race. While US technology corporations have become research powerhouses in their own right, academia remains critical to the innovation ecosystem. Academic institutions are by design the best places to foster exploratory research of the sort that often yields fundamental intellectual property (IP) breakthroughs—and every now and then, flashes of genius that lead to great advancements in their fields—precisely because universities are unfettered by concerns about near-term financial returns.

EXHIBIT 6

Foreign Talent Makes Up a Large Share of US AI Researchers



Sources: Survey of Earned Doctorates 2023 (National Science Foundation); AMiner; BCG Henderson Institute analysis.

¹N=139, corresponding to the US share of (i) the world's top 100 researchers across AI subfields and (ii) the world's top 100 machine learning researchers, both based on number of citations. Share of foreign nationals estimated based on non-US bachelor degrees and additional background research when relevant.

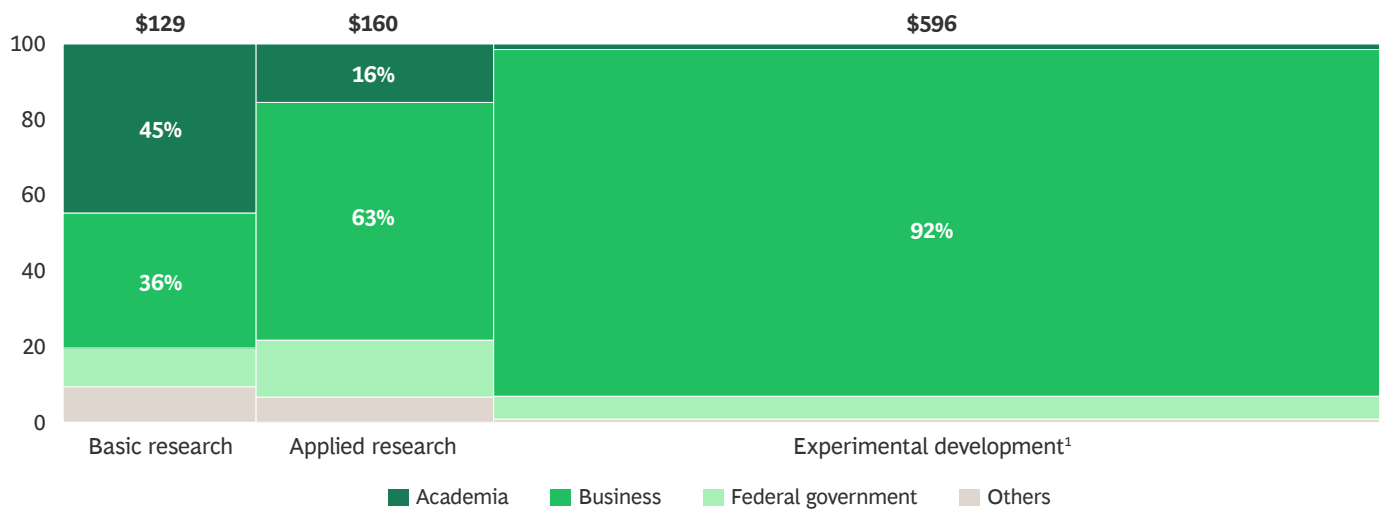
Such breakthroughs in time become catalysts for corporate R&D. Recent reports of Meta reducing the resources allocated to its Fundamental AI Research group in favor of more commercially oriented GenAI applications, if true, illustrate how businesses may choose to favor investments with clear returns over frontier research with an uncertain payoff.

The symbiotic relationship between academic and corporate research is reflected in their respective shares of spending along the R&D pipeline. In the US, academia is the largest contributor to basic research, while businesses play the largest role in applied research (63%) and experimental development (92%). In short, academia is key to enabling the exploration of ideas that are eventually taken up by businesses. (See **Exhibit 7**.)

EXHIBIT 7

Academia and Business Play Complementary Roles in the Innovation Ecosystem

US R&D EXPENDITURES, BY SECTOR, SOURCE OF FUNDS, AND TYPE OF R&D (2022, \$BILLIONS)



Source: Research and Development: US Trends and International Comparisons (NSF); BCG Henderson Institute analysis.

¹Experimental development is systematic work, drawing on existing knowledge gained from research and practical experience, that is directed to producing new materials, products, and devices; to installing new processes, systems and services; or to improving substantially those already produced or installed.

This type of division of labor between academia and private corporations has been critical to the development of GenAI itself. Google’s 2017 Transformer architecture, the cornerstone of today’s large language models, was only possible because of the (then-unfashionable) work on deep neural networks centered around the University of Toronto in the two decades prior. When ideas incubated in academia begin to mature, private investment in AI starts to rise—boosting applied research in the field. (See [Exhibit 8](#).)

The recent history of AI may seem to suggest that the location of academic research is not particularly important, as US companies have been the beneficiaries of breakthroughs incubated primarily in Canadian institutions between the 1970s and 1990s. But academic research institutions can confer significant advantages to a country’s innovation ecosystem, as both talent development hubs— attracting and training the talent necessary to build advanced tech firms—and as incubators of business ideas in their own right. (For evidence, look no further than Silicon Valley.) Empirical research shows that the spillover of academic knowledge is strongly localized: more, and better, corporate patents are produced near universities.⁴

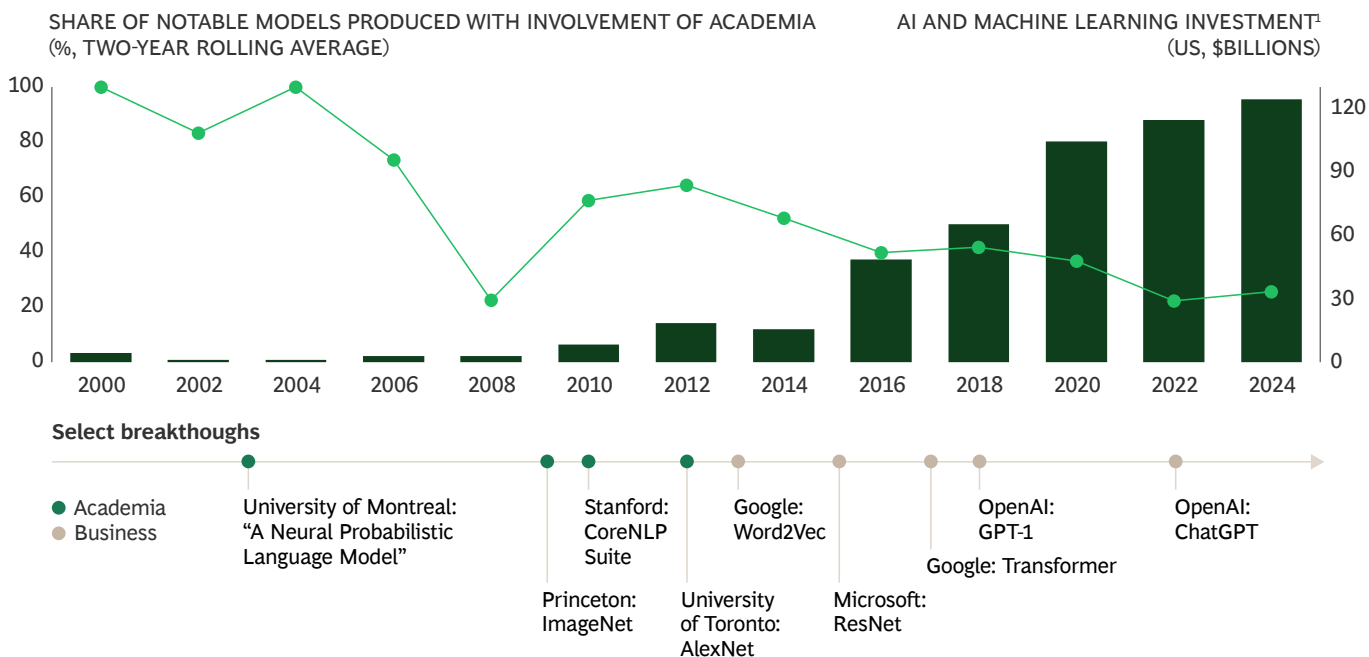
And while academic research is often open and confers little IP advantage, this is a choice, not an inevitability. Universities can restrict access to or monetize their research, and they appear more likely to do so now than they did in the recent past: in the US, academia’s share of all AI patent filings with the World Intellectual Property Organization rose by 40% between 2021 and 2023 compared to the period from 2013 to 2020.

In sum, where researchers live and work matters. And because so many of them are immigrants, their geographic footprint is highly sensitive to immigration policy, access to research funding, and financial compensation. On the immigration front, the suspension of new F-1 and J-1 visas, as well as plans to limit the Optional Practical Training program for postgraduation employment, will make it more challenging for US academic institutions to attract foreign students.

4. Naomi Hausman, “University Innovation and Local Economic Growth,” *Review of Economics and Statistics* 104, no. 4 (2022); Sharon Belenizon and Mark Schankerman, “Spreading the Word: Geography, Policy, and Knowledge Spillovers,” *Review of Economics and Statistics* 95, no. 3 (2013); Anna Valero and John Van Reenen, “The Economic Impact of Universities: Evidence from Across the Globe,” NBER Working Paper No. w22501 (August 2016); Leonie Koch and Martin Simmler, “How Important Are Local Knowledge Spillovers of Public R&D and What Drives Them?” EconPol Working Paper 42, ifo Institute—Leibniz Institute for Economic Research at the University of Munich (February 2020).

EXHIBIT 8

Academic Exploration Tends to Lay the Foundations for Commercial Research



Sources: PitchBook; Epoch AI; BCG Henderson Institute analysis.

¹Includes VC, buyout, M&A, debt, etc.

Academic research institutions can confer significant advantages to a country's innovation ecosystem, both as talent development hubs and as incubators of business ideas.

Cuts to public R&D spending will reduce the appeal of US universities for advanced researchers in particular. If enacted, the 2026 budget proposed by the Trump Administration would cut budgets at the National Science Foundation by 56% and the National Institutes of Health by 40%. These agencies account for much of the government's 56% share of total university research funding in the US.

Tighter budgets would impact all areas of research—and computer science is no exception. In fact, direct US government grants have played no small part in the work of some of the most notable AI researchers in recent decades: Over the course of their careers, Tomaso Poggio, Fei-Fei Li, and Yann LeCun, for example, have received \$56 million, \$30 million, and \$3 million in grants, respectively, for their research projects.⁵

5. Grant amounts based on available data from the National Science Foundation.



The Opportunity for GenAI Middle Powers

The crucial point is the academic R&D funding gap between the US and GenAI middle powers such as the EU, the UK, the UAE, and Saudi Arabia can in fact be closed. Academic research budgets for AI and computer science more generally are counted in the tens of millions—not the billions of corporate R&D budgets. In fact, the proposed cuts to NSF funding would effectively leave total US government support for academic research on par with that of leading AI research centers in other Western countries. (See [Exhibit 9](#).)

And while US academic institutions tend to offer higher compensation for researchers compared to non-US institutions, this advantage is modest compared to AI roles in the private sector. In purchase-power-parity terms, there is virtually no gap in compensation for postdoctoral positions, and relatively modest gaps at the associate professor level, when comparing top AI research universities in the US and other Western countries. (See [Exhibit 10](#).)

Some GenAI middle powers are already making moves to lure US-based researchers and students:

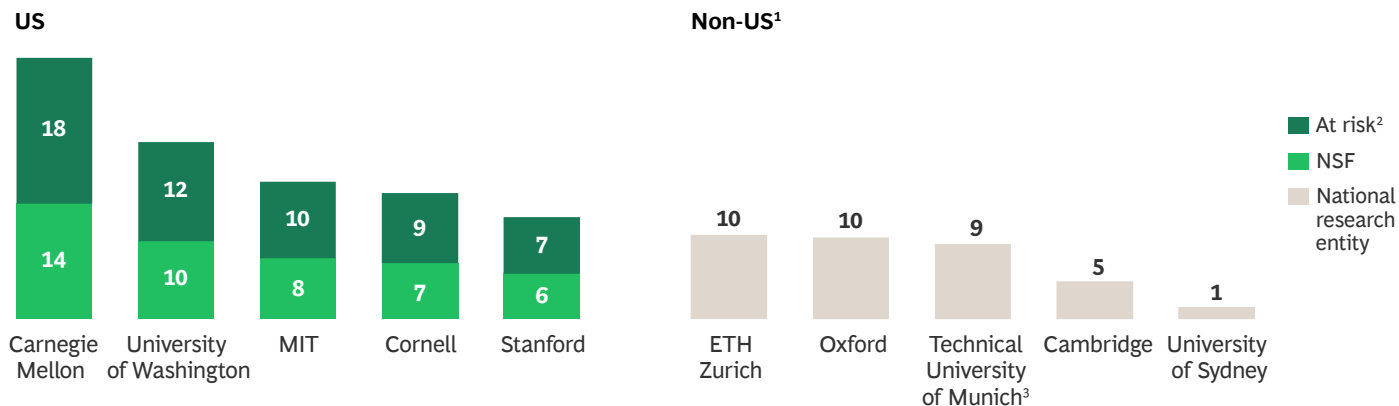
- In May 2025, the EU allocated around \$585 million over the next two years to attract foreign researchers. The initiative includes the creation of long-term “super grants” for researchers, lasting seven years. This is on top of the EU’s ongoing efforts to increase R&D spending to 3% of GDP by 2030 (up from around 2% today).
- France has already launched its “Choose France for Science” platform for international researchers, and it plans to spend more than \$100 million on its program to attract US-based researchers.
- The UK is reportedly set to introduce a nearly \$70 million program to attract researchers.
- The Australian Academy of Science announced the creation of a Global Talent Attraction Program, designed to offer a competitive relocation package sufficient to attract leading scientists and technologists to Australia.
- Japan’s Osaka University has started to offer tuition fee waivers, research grants, and help with travel arrangements for students and researchers at US institutions who wish to transfer.

EXHIBIT 9

Proposed NSF Budget Cuts Would Put Public Funding for Top AI Research Universities Abroad on Par with US Peers

Computer science and informatics-related public research grants for leading AI research universities¹

(\$MILLIONS, YEARLY AVERAGE IN PAST FIVE YEARS)



Sources: National Science Foundation; European Research Council; national research entities; BCG Henderson Institute analysis.

¹Selection of institutions based on H5 index, data availability, and geographic representativeness. China not included due to limited data availability.

²Based on proposed 56% NSF cuts in 2026 US federal budget proposal (as of May 2025).

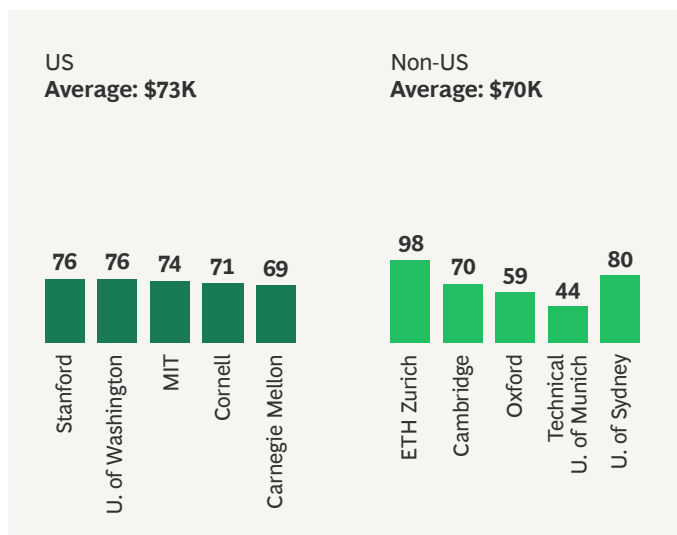
³Data for 2022–2024 unavailable.

EXHIBIT 10

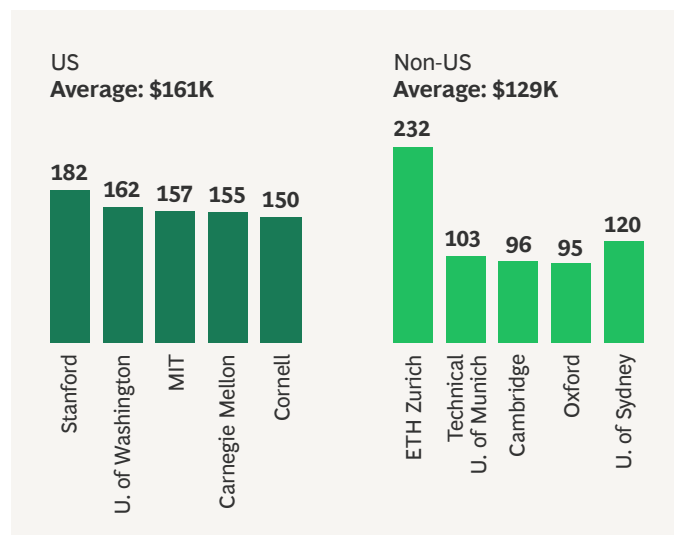
Academics' Compensation Abroad Could Match That of US Institutions

SALARIES AT LEADING AI ACADEMIC INSTITUTIONS¹ (\$THOUSANDS, ADJUSTED FOR PURCHASE POWER PARITY, 2024–2025)

Postdoctoral fellows



Associate professors



Sources: World Bank; US Department of Labor; university websites; Glassdoor; BCG Henderson Institute analysis.

¹Selection of non-US institutions based on H5 index, data availability, and geographic representativeness.



The Long-Term Effects of an AI Talent Shift

Tariffs are not likely to upend the dynamics of global AI competition. Nor will most AI workers cease to look to the US as a prime destination for highly compensated jobs with promising career opportunities. But the comparatively smaller group of highly mobile, top academic AI researchers is another matter: their prospects are directly impacted by recent policy shifts, and their choices can reshape the geography of AI innovation.

Trade policies have tangible P&L impact and will always be a focus of attention. But CEOs also need to monitor changes that impact the robustness of the talent pipelines on which they rely and, ultimately, the strength of the innovation ecosystem in the economies where they operate.

The implications of the unfolding policy shifts in the US will first be felt in the technology sector. But as more companies work at integrating AI into the core of their business, they will all be impacted by changes in the rate of technological progress across geographies. Those changes will in part depend on where the top AI minds of today—the AI geniuses of tomorrow—choose to lay down roots.

About the Authors



Nikolaus S. Lang is a managing director and senior partner in the Munich office of Boston Consulting Group. He is the global leader of the BCG Henderson Institute and the global vice chair of the firm's Global Advantage practice. You may reach him at lang.nikolaus@bcg.com.



Etienne Cavin is a consultant in BCG's Paris office and an ambassador at the BCG Henderson Institute. You may reach him at cavin.etienne@bcg.com.



Leonid Zhukov is a partner and vice president at BCG X and the director of the BCG X AI Science Institute. You may reach him at zhukov.leonid@bcg.com.



Johann Harnoss is a partner and associate director of innovation in the firm's Washington, DC office and the people chair for the BCG Henderson Institute. You may reach him at harnoss.johann@bcg.com.

For Further Contact

If you would like to discuss this report, please contact the authors.

Acknowledgments

The authors thank Christophe Haesler and Aniket Patil for their contributions to this piece.



Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963. Today, we work closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organizations to grow, build sustainable competitive advantage, and drive positive societal impact.

Our diverse, global teams bring deep industry and functional expertise and a range of perspectives that question the status quo and spark change. BCG delivers solutions through leading-edge management consulting, technology and design, and corporate and digital ventures. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, fueled by the goal of helping our clients thrive and enabling them to make the world a better place.

The BCG Henderson Institute is Boston Consulting Group's strategy think tank, dedicated to exploring and developing valuable new insights from business, technology, and science by embracing the powerful technology of ideas. The Institute engages leaders in provocative discussion and experimentation to expand the boundaries of business theory and practice and to translate innovative ideas from within and beyond business. For more ideas and inspiration from the Institute, please visit our [website](#) and follow us on [LinkedIn](#) and [X \(formerly Twitter\)](#).

For information or permission to reprint, please contact BCG at permissions@bcg.com. To find the latest BCG content and register to receive e-alerts on this topic or others, please visit [bcg.com](https://www.bcg.com). Follow Boston Consulting Group on [LinkedIn](#), [Facebook](#), and [X \(formerly Twitter\)](#).



BCG



**BCG
HENDERSON
INSTITUTE**