




# Doomslayer: Weekly Progress Roundup

Radioactive rhino horns, new AI models, the end of fur farming, and more.


MALCOLM COCHRAN  
AUG 10, 2025

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## Energy & Environment

### Conservation and biodiversity


- To help crack down on poaching, **scientists in South Africa are injecting rhino horns with low-level radioactive isotopes** that are harmless to the animals but detectable by scanners at airports and border crossings.
- Researchers have identified the pathogen responsible for billions of sea star deaths** off the Pacific Coast of North America and the widespread destruction of kelp forests. The finding solves a decade-long mystery and could help efforts to restore sea star populations and the ecosystems they support.

### Energy & Natural Resources

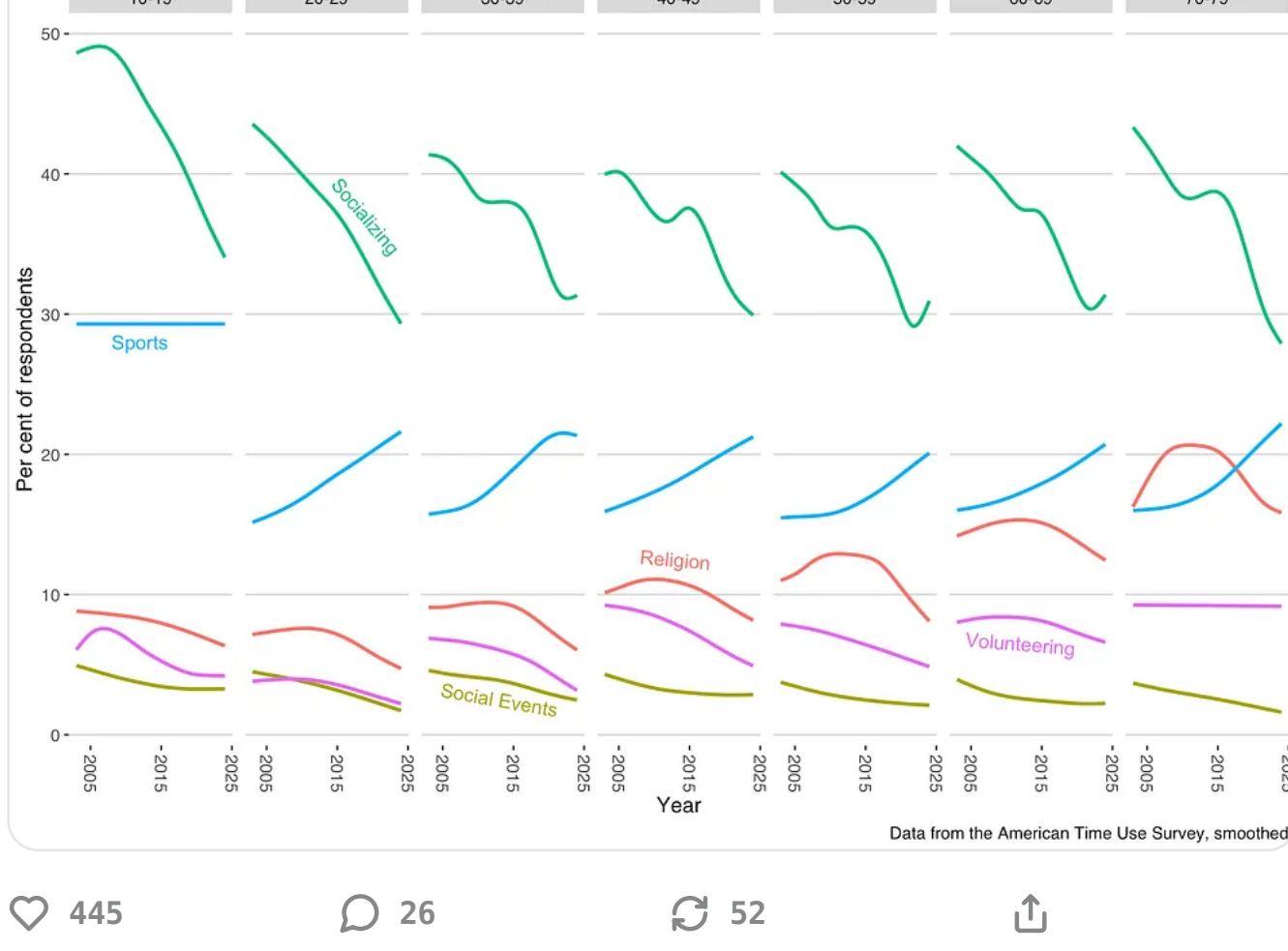
- BP has made what it calls its “largest global oil and gas discovery in 25 years”** in Brazil.


## Health & Demographics


- More Americans are playing sports.**


**Jim Savage** Jul 22


“Death of partying”, “loneliness epidemic” discourse misses an important trend: people are participating in more sport, across almost all age groups.



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 52




- New research links lithium deficiency to Alzheimer’s.** After finding that dementia patients often have low lithium levels, a group of scientists tested the relationship using mouse models. In mice bred to develop dementia, a low-lithium diet worsened symptoms, while lithium supplements improved them. The results hint that lithium loss might not just be an effect of Alzheimer’s, but a possible cause.
- Kenya has eliminated sleeping sickness, and Uganda is on track to eradicate river blindness.**
- Breastfeeding is becoming more common in Indonesia.** The World Health Organization estimates that **66.4 percent** of Indonesian infants were exclusively breastfed<sup>1</sup> in 2024, up from 52 percent in 2017. This is a big deal. According to the WHO:

Evidence shows that breastfeeding boosts children’s cognitive development by 3–4 IQ points, reduces overweight and obesity risk and provides lifelong protection against non-communicable diseases. Babies who are not breastfed are up to 14 times more likely to die before their first birthday than those who are exclusively breastfed during their first six months.


## Science & Technology

- OpenAI has released GPT-5, its most capable model yet, as well as two additional open-weight models.** These open models let developers run and modify the code themselves, enabling offline use and a greater level of customization.
- Google’s DeepMind has developed **an AI model that can generate interactive 3D environments in real time from text prompts**—potentially transforming filmmaking, video game development, and even **AI training methods**.
- Microsoft has taken a step toward solving one of cybersecurity’s biggest bottlenecks:** detecting and classifying malicious software. Its **new AI agent**, Project Ire, can automatically analyze suspicious files—work that normally takes hours of expert analysis. In testing, it caught just 25 percent of malicious files, but close to 90 percent of its flags were correct.
- The AI voice-over company **ElevenLabs has launched a music-generating software**. Here’s the impressive demo:



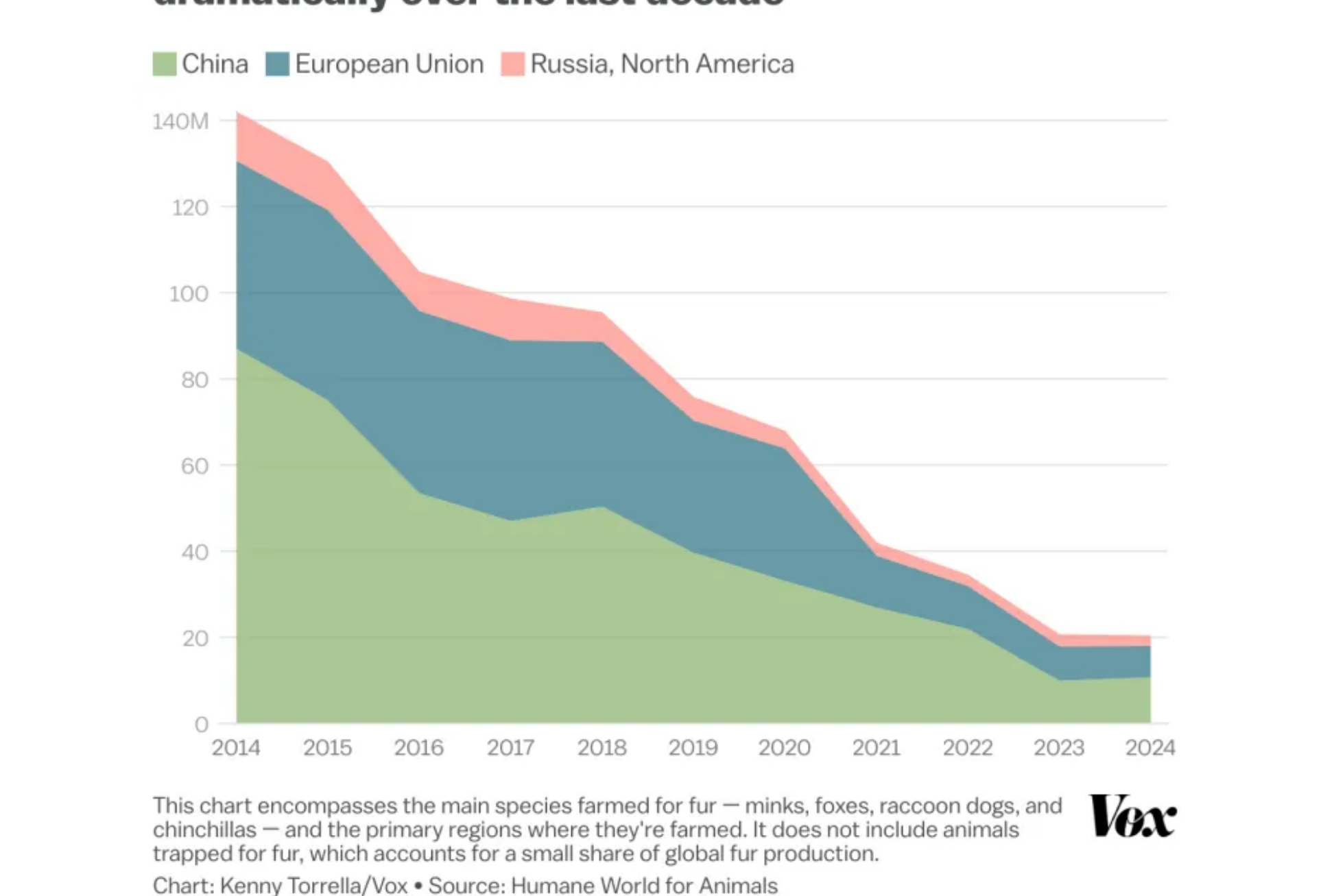
Introducing Eleven Music

Copy link

Watch on  YouTube

## Violence & Coercion


- According to new FBI data, **the US violent crime rate fell 4.5 percent from 2023 to 2024**, hitting its lowest level in two decades.
- Fur farming is in steep decline.** Between 2014 and 2024, the number of animals in fur farms fell from over 140 million to around 20 million.



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## Progress Studies

Timothy Lee remarks on Waymo reactionaries.

 **Understanding AI**


**Unions want to ban driverless taxis—will Democratic leaders say yes?**


Waymo hasn’t announced any specific plans to launch a driverless taxi service in Boston. But the Google self-driving company did some preliminary testing and mapping there this summer (with safety drivers behind the wheel) and the Boston City Council wasn’t happy about it. The council grilled Waymo about its plans at a...

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4 days ago · 80 likes · 45 comments · Timothy B. Lee

Anton Howes discusses the history of the Industrial Revolution.

 **The Works in Progress Newsletter**

 **How Henry VIII accidentally started the Industrial Revolution, with Anton Howes**

Historian Anton Howes discusses how Henry VIII turned Britain into an economic backwater – making it the unlikely place for the Industrial Revolution to happen. But, he explains, it only took a small cabal of people who understood the problems of the time to turn the fate of the country (and thus, the world) around...

 **Listen now**

13 days ago · 39 likes · 8 comments · Sam Bowman, Ben Southwood, Anton Howes, and Works in Progress

<sup>1</sup> Meaning the child is given only breast milk during its first six months, no other foods or beverages.



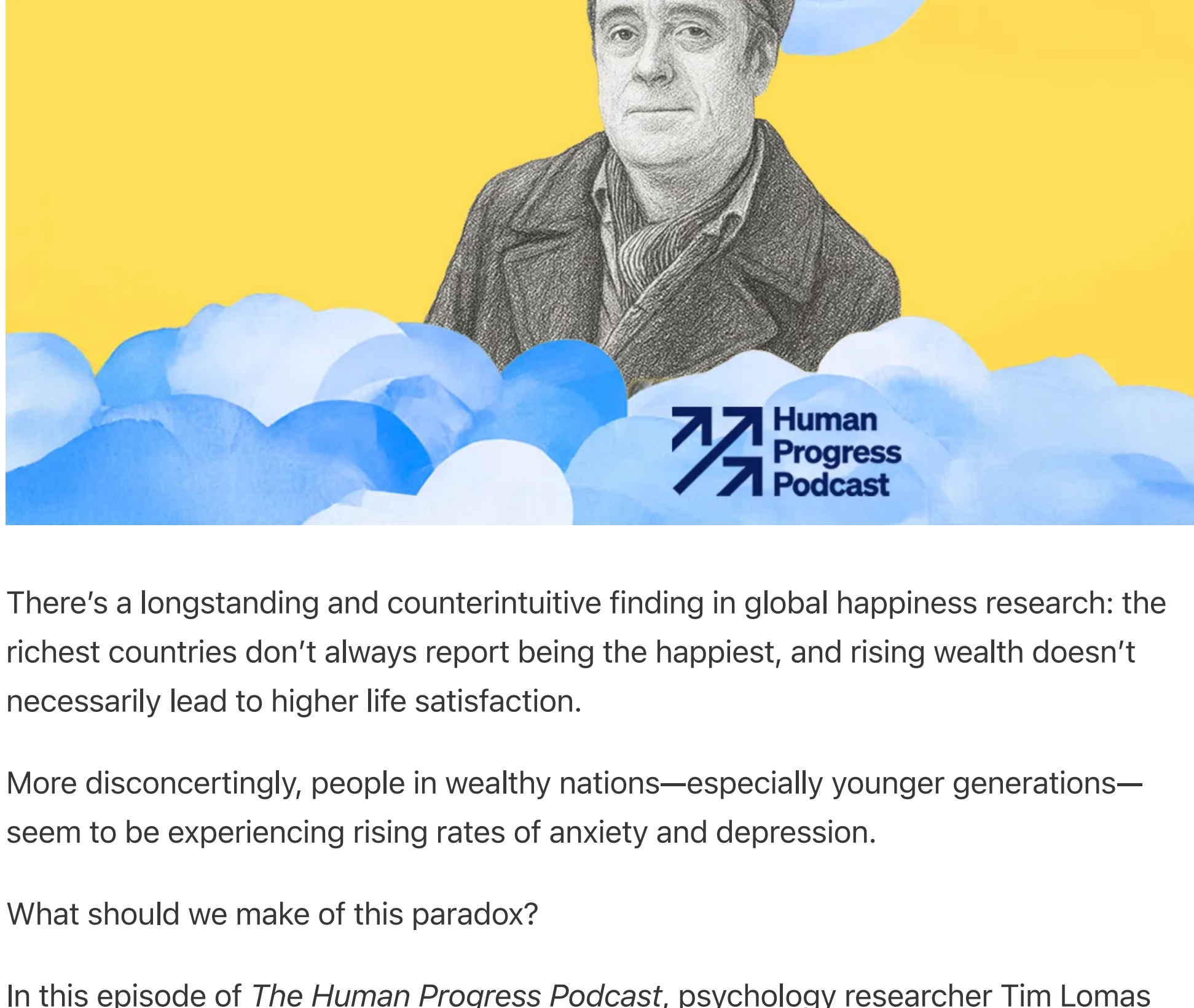
# Is Progress Making Us Miserable?

Tim Lomas joins Chelsea Follett to explore surprising global trends in happiness, meaning, mental health, and more.

HUMAN PROGRESS

AUG 09, 2025

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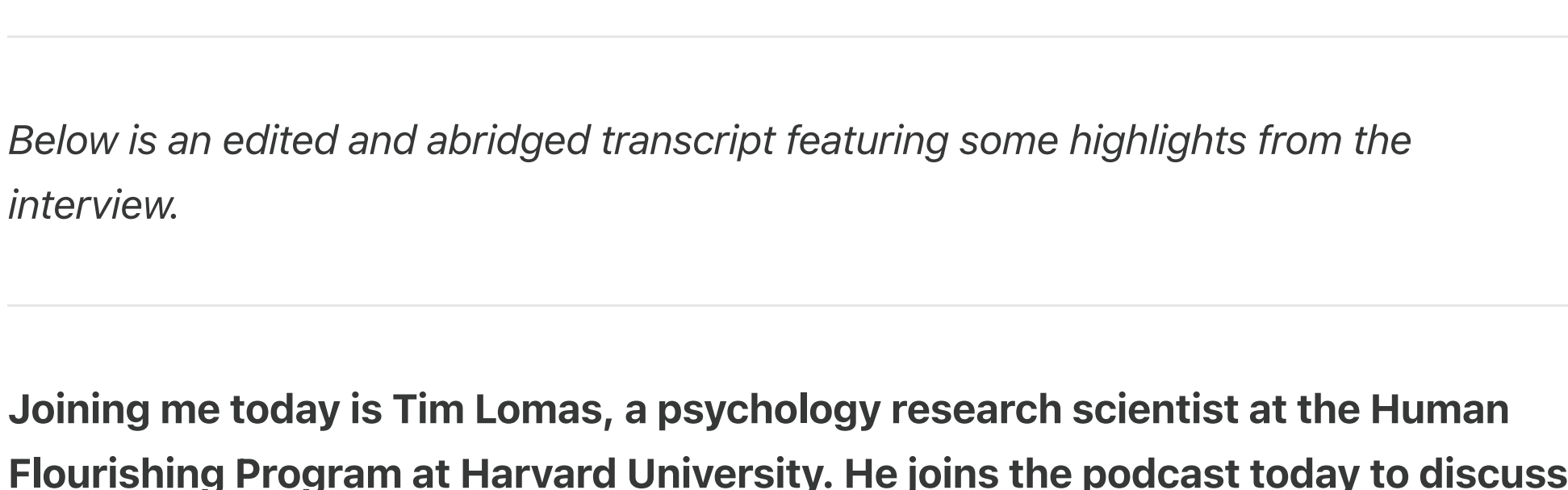
There's a longstanding and counterintuitive finding in global happiness research: the richest countries don't always report being the happiest, and rising wealth doesn't necessarily lead to higher life satisfaction.

More disconcertingly, people in wealthy nations—especially younger generations—seem to be experiencing rising rates of anxiety and depression.

What should we make of this paradox?

In this episode of *The Human Progress Podcast*, psychology researcher Tim Lomas joins Chelsea Follett to discuss his research on global human flourishing and what it reveals about the relationship between economic development and well-being.

Listen to the interview



*Below is an edited and abridged transcript featuring some highlights from the interview.*

**Joining me today is Tim Lomas, a psychology research scientist at the Human Flourishing Program at Harvard University. He joins the podcast today to discuss the [Global Flourishing Study](#).**

**Could you start us off by just telling us a little bit about this study and what questions it contains?**

The two masterminds behind the study are Tyler VanderWeele, director of the Human Flourishing Program at Harvard, and Byron Johnson at the Baylor Institute for the Study of Religion. Around six years ago, they hatched this incredibly ambitious plan to do a global study of flourishing.

There are lots of international studies of well-being. The Gallup World Poll, for example, has been around for 20 years, covering some 150 countries. However, one issue with that study is that it's cross-sectional: it's a snapshot of people each year. It doesn't track people over time, so it can't really tell us about causal trends or patterns other than at the international level. Our study takes a set of people and follows them over time.

In 2023, we did the first wave of data collection from over 200,000 people. 2024 was wave two, so we now have two waves of data. Wave three has just gone into the field. The plan has been for it to go on for at least five years.

The heart of the study is a questionnaire covering different aspects of flourishing. It's centered around a framework with five main domains of flourishing plus an additional sixth one. So the five main domains are happiness and life satisfaction, health, both physical and mental, meaning and purpose, character and virtue, and close social relationships. The additional sixth dimension is financial and material stability. That's not exactly an end in itself like the others, but it's pretty important for securing those other domains. There are also questions on religion, spirituality, society, government, relationship to nature, and some that are harder to categorize, such as experiences of beauty connected to nature.

**There are some well-known issues with self-reported data. There are the issues of subjectivity, individual interpretation, and differing cultural norms. So, we need to interpret this data very cautiously and ideally alongside some more objective metrics. That said, it's still really interesting, and some of the insights are very counterintuitive.**

**Let's start by examining more of these different domains. Can you tell me about the different main domains and why they were selected?**

The domains were selected by Tyler VanderWeele on the basis of being prominent in the literature, as well as just making intuitive sense. Most of the attention in the literature has been on those first two domains: happiness, life satisfaction, and health. Obviously, for health, there are plenty of objective metrics.

When it comes to happiness and life satisfaction, it's hard to find objective metrics, and there are lots of nuances to get into. One of the papers I've been leading compares life evaluation with life satisfaction and with happiness. These concepts all seem very similar and are sometimes even used synonymously, but there are actually considerable and intriguing differences between them. But I would say those two domains have been very well covered. Close social relationships are also a big focus of attention.

The other two main domains, character and virtue, and meaning and purpose, have had much less attention, but we think that they're integral to human flourishing. If you score highly in the other domains but don't have a sense of character and virtue, or meaning and purpose, then your life could feel hollow or superficial.

The sixth dimension, financial material stability, is fairly well studied. In a lot of our analyses, we seek to combine the self-report data with objective metrics, and that can be interesting. For example, incorporating something like GDP per capita creates some very strange and perplexing patterns.

**Absolutely. That was one of the interesting points to me. The countries that score the highest are not necessarily the ones that you would expect based purely on material standard of living. Many of the countries that score very high, like Indonesia, Mexico, and the Philippines, are middle-income countries. They're not very rich, but they are experiencing a high growth rate. I would be interested in hearing your thoughts on that.**

I really love your insight about trajectory. I'll start with a caveat relating to what you mentioned about cultural and linguistic differences.

To give you an example, Japan is at the bottom of a lot of the rankings. And Japan is clearly an economically developed nation. I've been there a few times and I love the place. You walk around thinking, this is an amazing society. And then when you see this data, you think, "am I missing something as an outsider, or are there cultural differences that I'm not picking up on?" There is a suggestion in the literature that Japan and other cultures in that region might have more pressure to be self-effacing. So, the question arises, does that account for their relatively low scores? My sense is that would account for some of it.

That is just a general caveat about the task of comparing cultures. That said, you can still see some meaningful patterns, and I think you're right, the countries that seem to do very well in terms of flourishing are not the most economically developed countries. And then one might wonder whether development comes at the expense of other aspects of flourishing, like societal cohesion, community structure, traditions, religion and spirituality, and social connections.

The lesson here isn't that societies shouldn't develop economically because that's a vital component of flourishing. The question is how to develop economically without sacrificing those other domains. That's really the key question we're trying to think through.

I also want to touch upon your point about the trajectory. One's sense of how well one's life is or how well one's society is doing is not static. It's based on where it's been and where it's going. I can imagine two countries that are almost identical in terms of their current state, but one is on a downward trajectory, and the other is getting better. My sense of which society is better might be the one that's improving. So even if those countries may not be as developed economically, the people in those countries sense they're on this upward trajectory, and that positive sentiment is reflected in their flourishing scores.

**I've seen completely unrelated studies that show something similar happening with age. In most countries, almost all of them, actually, older people have more positive reports across many domains than younger people. I wonder if that might have to do with the greater perspective that older people have, especially if they've seen a lot of positive economic change in their lifetime. What do you think about that?**

I think that's a really key point. There is this striking trend where satisfaction, happiness, and even flourishing generally are somewhat U-shaped over lifetimes: they are relatively high in the young, then they fall to their lowest level around middle age, and then they rise again as people get older, though it tends to fall off as people get very old. This U-shaped pattern is well corroborated, although now the left-hand side of the U is starting to come down into a kind of J-shaped curve, where older people are doing even better than younger people, with the lowest level still in middle age.

You can even see this with self-reported health. Objectively, the younger person is going to be in better health than an older person, but it's a question of relative judgement. Do you feel like you're doing okay relative to where you expect to be, or to your peers, or to people in the past?

This emerging J-shaped pattern is also kind of worrying in terms of what it shows about the well-being of young people. Perhaps younger people today are facing significant challenges that weren't faced by people of a similar age in earlier generations. Things around the climate, the economics of AI, and the future of work. You can imagine there are so many issues on young people's minds that could be weighing them down.

**Absolutely, though every generation has its challenges. My parents' generation had to hide under their desks in drills out of fear that a nuclear weapon could fall on them. I think something that has changed is the perspective people have. At Human Progress, we believe that many people lack historical perspective, and it's important to show them longitudinal data about how things have changed.**

**That brings me to mental health. The United States is not scoring as well on self-reported mental health as a lot of countries that are economically worse off. For example, Tanzania, Kenya, Nigeria, and Egypt all seem to have what you call a surplus in this domain of mental health.**

**I wonder if people in wealthy countries have become much more fragile or sensitive in this domain. With growing acceptance of mental health struggles, you might even get a social reward for saying that you have anxiety or for ranking your mental health poorly. So I wonder how much we can really make of some of these comparisons.**

You could imagine that in certain cultures, and maybe the US is one example, certain states of mind or experiences are more likely to be medicalized, and in other countries, perhaps less so. There's been so much work around the therapization and medicalization of ordinary life, not just in the United States, the tendency to take ordinary struggles and see them through a mental illness lens. I can see certain incentives for using mental illness as a badge of identity, let's say.

There's also evidence that technology plays a role. Not technology per se, but the way in which it's used, certain apps and so on. You could imagine that in certain cultures, perhaps the more economically developed ones, those risk factors could be more prevalent. Progress always has a dialectic; it brings good things and bad things. So countries with less economic development could have less opportunity to benefit from the gains, but also less exposure to the risks.

**Another factor you mentioned is voluntary community life. Group activities, both secular and religious, seem to be associated with greater flourishing. Even after controlling for other well-known predictors, it seems like some of the best support systems for human flourishing, as measured by this study, are these bottom-up systems of voluntary communities, civil society, and religious organizations.**

**Walk me through some of your findings there.**

Yeah, I think they're so important. Close social connections and social institutions are both strong predictors of happiness and life satisfaction, and key aspects of flourishing themselves.

You're often asked with studies like this, what can people do to improve their well-being? Many aspects of life are out of our control, but one thing that is within our control is trying to find community. Some groups can be more conducive to flourishing than others, but as a general principle, joining communities and organizations is a powerful route to flourishing.

I also think that at least part of the counterintuitive relationship between economic development and flourishing is that development can come at the expense of traditional communities and groups. The takeaway here is that economic development alone is not sufficient; we should also try to preserve things like community, tradition, social structures, and close social relationships, and try to learn lessons from countries that seem to be doing that.

**One of the factors that a lot of the literature has looked at is a sense of agency or an internal locus of control. People who are high agency, who feel that they do have more control over their lives, often report higher well-being across a whole range of dimensions.**

**Do you see that trend in this study as well?**

We do. Now, when we ask about agency, it's more at a societal level. We're asking people, "Can people in your society trust each other? Can you trust the government? Is there corruption? Do people in your country have the freedom to do X?"

So, agency as freedom from coercive institutions, freedom to pursue one's own ends economically, religiously, and so on. And we do find a strong correlation between this kind of structural agency and flourishing.

Read the full transcript

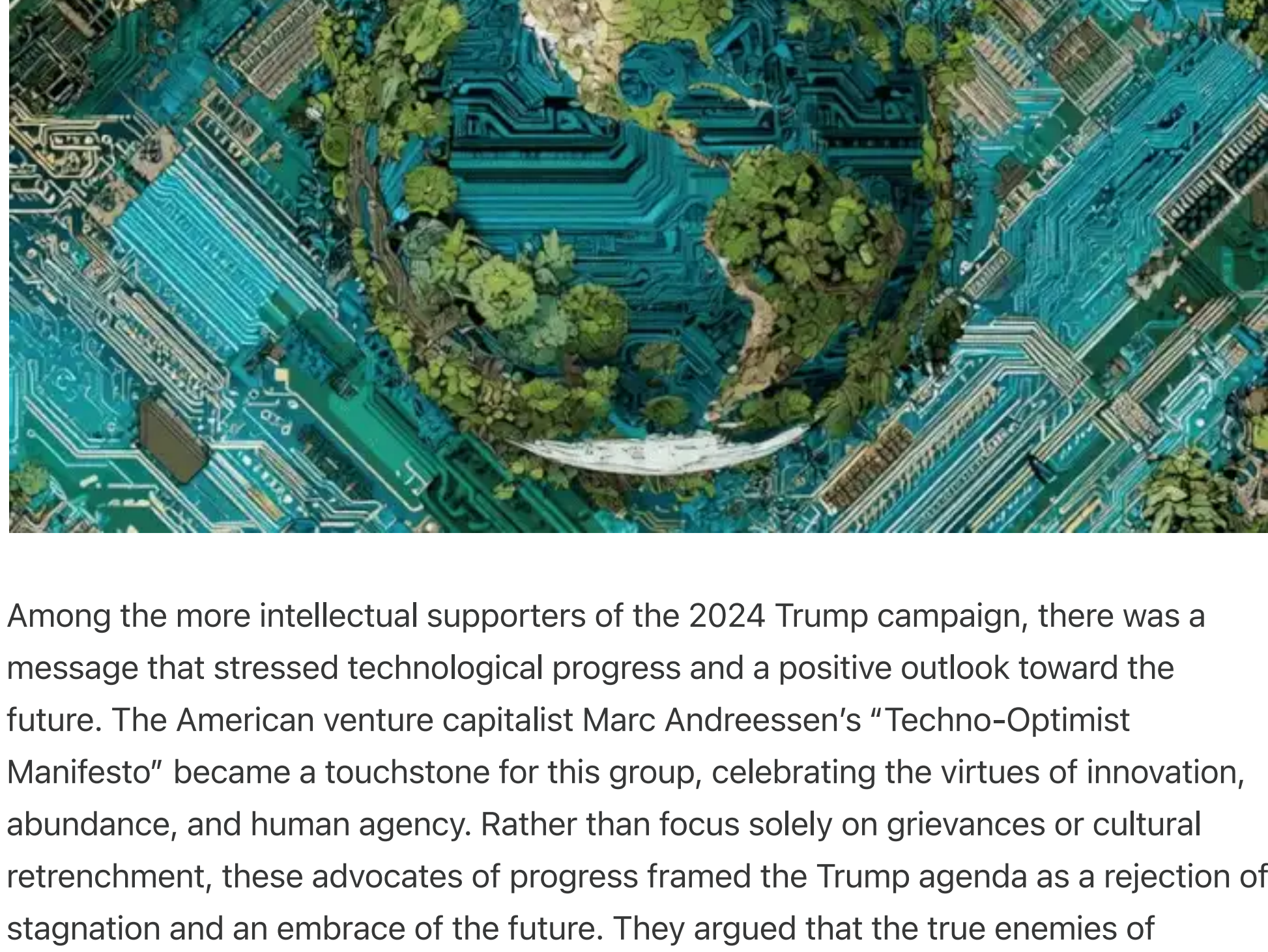


# High-Skilled Immigration Is Key to America's Success

Top human capital is hard to come by.

RICHARD HANANIA  
AUG 07, 2025

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Among the more intellectual supporters of the 2024 Trump campaign, there was a message that stressed technological progress and a positive outlook toward the future. The American venture capitalist Marc Andreessen’s “Techno-Optimist Manifesto” became a touchstone for this group, celebrating the virtues of innovation, abundance, and human agency. Rather than focus solely on grievances or cultural retrenchment, these advocates of progress framed the Trump agenda as a rejection of stagnation and an embrace of the future. They argued that the true enemies of progress were the left-leaning bureaucracies, academic institutions, and regulatory regimes that, in their view, had become hostile to risk-taking and entrepreneurship.

Silicon Valley investor Peter Thiel’s famous maxim that “we were promised flying cars, instead we got 140 characters” has become a rallying cry among the tech right. Vice President JD Vance, in a high-profile speech at the AI Action Summit in Paris, struck many of the same notes, warning against overregulation in the name of safety and stressing that we should expect future developments to make workers more productive rather than put them out of jobs.

The tech right is of course correct not to fear the future and to see technology as the key to human progress, not a threat to it. Unfortunately, the Trump administration has taken us backward on what is arguably the most important issue from an enhanced-growth perspective: openness toward high-skilled immigration.

Human capital—the skills, knowledge, and health of workers—is increasingly the engine of productivity growth, far more so than natural resources or physical inputs. In his 2008 book *Triumph of the City*, Harvard economist Edward Glaeser shows how American cities have risen or fallen over the past several decades according to their ability to serve as places where smart and talented people can cluster together. Our great industries are built on conglomerations of talent in different locales: tech in Boston and San Francisco; finance in New York City; entertainment in Los Angeles. College towns throughout the country play a similar role on a smaller scale.

And since only a minority of the talent in the world belongs to people born in the United States, immigration is necessary to make sure that the most productive workers can cluster together. According to the Indian American venture capitalist [Deedy Das](#), of the 44 members of Meta’s recently recruited superintelligence team, who can earn packages of up to \$100 million a year, half are from China and 75 percent are first-generation immigrants. As of 2024, [46 percent of Fortune 500 companies](#) were launched by first-generation immigrants (108) or their children (123). A 2022 study by the National Foundation for American Policy showed that this same group [had founded or cofounded](#) more than half of the US start-up companies valued at \$1 billion or more.

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Even if you look at rates of entrepreneurship more generally instead of focusing on the most successful firms, we see how dependent the American economy is on recent arrivals. Immigrants are nearly twice as likely to start businesses as native-born Americans, and they make up about a [quarter](#) of all entrepreneurs. These figures highlight how immigration fuels not only population growth but also innovation, job creation, and long-term economic dynamism. And this isn’t simply a question of deliberately skimming off a few geniuses born overseas, even if it were possible for the government to be that discerning in its assessment of talent. The goal should instead be to have as large a pool as possible of skilled individuals who can contribute to dynamism and growth at all levels.

Innovation is driven not just by increasing private-sector productivity but also by breakthroughs made on university campuses. In 2019 and 2020, 49 percent of STEM (science, technology, engineering, and mathematics) master’s degrees and 57 percent of STEM PhDs were [obtained](#) by students on temporary visas. As of the 2023–2024 academic year, over 500,000 international graduate students were pursuing advanced education in the US, with roughly 70 percent of full-time graduate students in fields like [electrical engineering and computer science](#) hailing from abroad.

Members of the tech right who have either worked in the Trump administration or supported it are themselves proof of the United States’ ability to attract the most talented and ambitious people in the world. Elon Musk was born in South Africa, and Thiel is from Germany. Other examples include David Sacks, born in South Africa, who is now Trump’s AI and crypto czar, and Chamath Palihapitiya, a Sri Lankan-born investor who helped scale Facebook and is now a major Republican donor. Note that Musk would not have been able to immigrate to the US if our policy were to accept proven geniuses only. He accomplished his remarkable feats after he arrived in the United States. The same can be said of Taiwan-born Jensen Huang, who came to America as a child, and ended up founding Nvidia, which has a market capitalization of over \$4 trillion.

Yet despite what members of the tech right may think about the issue of immigration, the Trump administration has been making it much more difficult for smart and talented people to arrive and settle in the United States. One major area of anti-immigrant crackdown has been international students. In early 2025, a Japanese graduate student at Brigham Young University faced deportation proceedings after being cited for a fishing violation—an example of the administration’s increasingly aggressive enforcement posture, where even minor infractions can trigger visa revocation. The student’s visa was [reinstated](#) a few weeks later, but the case is troubling, for it shows that there can be serious consequences for nonserious criminal behavior such as administrative mistakes or minor legal citations. Foreign students are also being screened for political opinions, with the government checking social media accounts for vague criteria such as not believing in American values.

This trend has broader consequences for America’s long-term talent pipeline. For decades, foreign students—particularly in STEM fields—have formed a core component of the US innovation economy. Many arrive on F-1 student visas, transition to work under Optional Practical Training (OPT), and then eventually become permanent residents and citizens. Clogging this pipeline with unnecessary obstacles means that fewer of the world’s smartest young people will build careers and start companies in the United States. As universities report declines in international applications, and graduates face heightened risks of removal, the cumulative effect is to shrink the future pool of scientists, engineers, and entrepreneurs who would otherwise contribute to American technological leadership.

In May 2025, the State Department [reported](#) a 22 percent drop in F-1 visas granted compared to the year before, and a 13 percent decline in J-1 visas, both used by foreign students. This decline is probably due to some combination of restrictions put on new arrivals, bureaucratic hurdles placed in their way, and foreigners simply seeing the United States as a less desirable destination than it used to be. Studyportals, a website that matches applicants to schools in other countries, reports a massive decline in interest in coming to the US among international students, [reaching its lowest levels](#) since the COVID-19 pandemic.

The losses that result from that drop-off will be felt by not only the US. One might imagine a simple global redistribution of talent, with the total amount of innovation in the world staying the same. If that is the case, we may not worry about the US pushing away skilled foreigners.

Unfortunately, returning to Glaeser’s arguments, there are outsized returns to clusters of smart people. If all of the most talented researchers in biotechnology were distributed among 10 major cities across the world, those researchers would accomplish much less than if they were concentrated in one or a few locales. That is because there are benefits to face-to-face interactions.

When smart people are in close geographic proximity, they can more efficiently exchange ideas and find ways to collaborate. That is why it still makes sense to move to the Bay Area if you are a tech entrepreneur, despite its high housing costs and the ease of remote work. The US has benefited both itself and the world by having localities where clusters of unusually talented people congregate. We are in danger of losing that advantage due to the administration’s policies.

Ultimately, we should be thinking about not only how to go back to the days of a more welcoming high-skilled immigration policy, but also about how to increase the number of talented migrants. Politics is making that more difficult. The Fairness for High-Skilled Immigrants Act, championed in 2019 and 2020 by Sen. Mike Lee (R-UT), would have accelerated the path to permanent residency—and thus naturalization—for tens of thousands of skilled immigrants already working in the US, predominantly in STEM fields.

By eliminating per-country caps that limit the number of entrants into the US from individual countries, the bill would have dramatically shortened wait times for applicants from places such as India and China, significantly increasing the number of highly skilled workers eligible for citizenship over time. This shift would have raised the skill level of the American workforce and expanded the talent pool available to US companies, bolstering innovation and productivity and creating a larger class of potential inventors and entrepreneurs. Unfortunately, intense opposition from elements of the MAGA-aligned right, who argued that the bill would unfairly disadvantage American-born workers, ultimately doomed the effort.

Republicans since that time have decided not to touch the hot stove again. Any effort to increase the number of visas or naturalizations is now bound to stir up a cauldron of discontent among the president’s supporters and influencers. That’s doubly unfortunate, given that the president has on occasion expressed his support for high-skilled immigration, stating as recently as 2024 that “[when] you graduate from a [US] college, I think you should get automatically, as part of your diploma, a green card to be able to stay in this country.”

Nativism is limited in how much damage it can do in terms of reducing the number of newcomers, because immigration policy is mostly set by statute, but much more harm is likely done by the fact that it has become politically impossible to enact the kinds of more open policies that have traditionally had bipartisan support and greatly benefited the nation.

Not everything done by the administration on this front has been negative. A [proposed rule](#) change to the H-1B lottery—giving preferences based on the salaries of applicants, from highest to lowest—would be particularly effective. Since earnings are a rough proxy for economic contribution and potential to innovate, this change would be an improvement on the current system. At the same time, such a shift would disadvantage early career professionals. While a change like that should be welcomed on balance, the goal should ultimately be many more visas given to skilled professionals, as two-thirds of H-1B applications are now rejected.

To support techno-optimism and techno-futurism while being hostile or indifferent toward high-skilled immigration is like worrying about climate change without prioritizing technologies that limit the release of carbon dioxide into the atmosphere. High-skilled immigration is not one issue among many. Human capital is the ultimate input that determines whether cities, states, and nations rise and fall. Surely the same people who claim to worry about America’s decline and China’s rise should want innovation-friendly policies in the United States rather than in China?

It has often been noted that there is an uneasy alliance between the tech right and President Trump’s MAGA base, with the immigration issue often being highlighted as a major point of contention. I believe the idea that this is a minor divergence of opinion rather than an unreconcilable difference in worldviews can be held only by ignoring just how important high-skilled immigration is to technological progress. Human capital is not simply one factor in the combination it takes to have a successful, dynamic, and innovative economy. It is the foundation of progress. Without understanding that, all visions of a bold technological future are likely to end in disappointment.