ORANGE CATERPILLAR

ORANGE CATERPILLAR RESEARCH · INDIA, AI & THE FUTURE OF WORK

The Jobs Aren't Coming

Why India's future belongs to builders with AI

India built the world's largest education engine, and the world's widest gap between graduates and jobs. AI will widen that gap before it ever narrows it. This paper argues that one move changes a young Indian's odds: becoming genuinely adept at AI by *building* with it. Master it, and two doors open. You become first among equals in placements, *and* you can build a venture of your own. Both are now within reach. Neither comes from another degree.

Samson David · Founder & CEO **&** **Trisha David** · Co-Founder & Director of Research
Orange Caterpillar · 2026 · www.orangecaterpillar.com

35–40%
Graduate unemployment in India, unchanged since 1983.

–50%
The real value erased from an IT fresher's salary as pay froze for two decades and prices climbed.

58.4%
Of Indians already work for themselves, not for an employer.

THE ARGUMENT IN BRIEF

India has spent forty years winning the wrong battle.

THE GAP. We made education dramatically more accessible, and assumed jobs would follow. They didn't. Graduate unemployment has sat between 35% and 40% since 1983. Every year India adds roughly five million graduates and absorbs fewer than three million of them *(State of Working India 2026, Azim Premji University)*.

IT'S STRUCTURAL. The salaried economy everyone competes for is barely a fifth of all work. Manufacturing has stalled near 12%. Even the great absorber, IT services, has kept fresher pay near ₹3.5 lakh for two decades; once inflation is counted, the real value of that starting salary has roughly halved.

AI DEEPENS IT FIRST. Entry-level tech roles are already down 20 to 25% to automation *(EY)*. The bottom rung that once absorbed millions is being pulled away. The new roles AI creates are real, but fewer, more specialised, and three to five years from clear shape. The pain is here now; the payoff comes later.

SO THE OLD PLAN IS BREAKING. Collect a degree, wait for a hiring engine to absorb you: that deal worked for one generation and is now the risky bet. The real question is no longer how to get hired into a shrinking pool. It is how to become someone who can create value with AI.

ONE CAPABILITY. Being genuinely adept at AI. And AI cannot be lectured into anyone. It is learned the way swimming is, by doing. India has always been brilliant at teaching. The next decade rewards building with AI.

TWO DOORS. That single capability opens two of them. Through the first, the AI-adept graduate becomes *first among equals* in placements, winning the shrinking pool of good jobs and the wage premium that now rewards demonstrable AI skill. Through the second, they can build their own AI-powered micro-venture. Most will use both. Building with AI is the key that fits both locks.

THIS PAPER lays out the crisis honestly, then sets out what students, parents and colleges should each do about it.

PART I · THE GAP THAT WILL NOT CLOSE

01 An achievement, and a quiet betrayal

Begin with the achievement, because it is real and it is ours. Over four decades India widened the door to education on a scale few nations have managed. Tertiary enrolment now sits around 28%, on par with countries of similar income. Female enrolment climbed from 38% in 1983 to 68% in 2023. Doors opened for communities that had been locked out for generations. A young Indian today is more educated, more connected and more ambitious than any cohort before them. That is a genuine national accomplishment.

Now the betrayal hiding inside it. According to the *State of Working India 2026* report from Azim Premji University, the share of graduates who cannot find work has barely moved across that entire period, stuck in a 35 to 40% band since 1983. Through liberalisation, the IT boom, the mobile-internet decade: more colleges, more seats, more degrees, and almost exactly the same share left out. Today nearly 40% of graduates aged 15 to 25 are unemployed. Among the roughly 6.3 crore graduates aged 20 to 29, about 1.1 crore were out of work in 2023. And of young graduates who report themselves unemployed, only around 7% find permanent salaried work within a year.

The arithmetic is brutal in its simplicity. Between 2004–05 and 2023, India added roughly five million graduates to the workforce every year and absorbed fewer than three million of them into employment. The rest, over two million young people annually, were left to wait, to settle, or to disappear into low-value work.

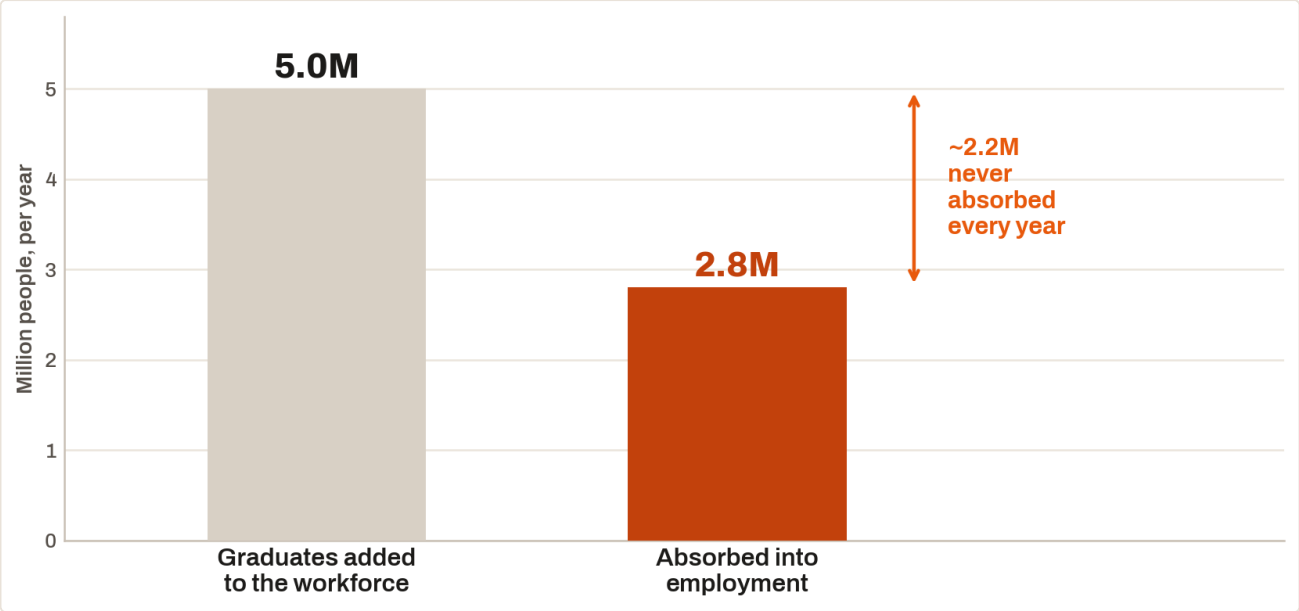

Figure 1. The absorption gap: India produces graduates far faster than it employs them.

Source: State of Working India 2026, Azim Premji University (Centre for Sustainable Employment), annual averages 2004–05 to 2023.

We have, in effect, built a magnificent on-ramp to a highway that was never widened. The degree was sold as a ticket. For the better part of two generations, for the majority, it has not been one.

02 Why this is structural, and will not fix itself

The comfortable explanation is that the economy is simply between cycles: grow faster, and the jobs will come. But the gap has held steady through booms and busts alike, which tells us the cause is not the weather. It is the architecture.

Look at where Indians actually work. Regular salaried employment, the stable, contracted job that a degree is supposed to lead to, accounts for only about a fifth of the workforce *(PLFS, Ministry of Statistics and Programme Implementation)*. Manufacturing, which lifted much of East Asia's young into the middle class, has been stuck near 12% of Indian employment for decades, against roughly 30% in China. The salaried, formal economy is small, and it is not growing fast enough to absorb five million new graduates a year, not this decade, and very likely not the next.

The World Bank's 2025 *India Country Economic Memorandum*, pointedly titled *Becoming a High-Income Economy in a Generation*, is clear-eyed about the scale of what would be required: sustained real growth of around 7.8% for two decades, a sharp rise in investment, and above all the creation of "more and better jobs." It is an achievable target, the Bank argues, but only with reform as ambitious as the goal. High-frequency trackers such as BCG's *India Economic Monitor* show an economy with real industrial momentum; the honest reading is that even strong macro growth has not, and on its own will not, close a graduate-absorption gap this large. Growth is necessary. It has never been sufficient.

This is the uncomfortable foundation everything else rests on. The fundamentals that produced the gap, a vast and rising supply of graduates, a small salaried sector, a stalled manufacturing base, are not about to reverse. Anyone planning a child's future, or an institution's, on the assumption that the hiring engines will eventually catch up is planning on a tide that is not coming in.

03 The frozen floor: stagnant pay, falling real income

If the absorption gap is the crisis of *quantity*, there is a quieter crisis of *quality* sitting right beside it, and nowhere is it starker than in the one industry that was supposed to be the great escalator: IT services.

For an entire generation, the deal was simple and real: an engineering degree bought a ticket into TCS, Infosys or Wipro, and a place in a rising middle class. The ticket still exists. What it buys has barely changed. Entry-level pay at the large IT services firms has been frozen near ₹3 to 3.6 lakh a year for close to two decades; former employees recall starting salaries around ₹3 lakh in 2004, and the bands were effectively fixed by 2008 *(reporting by The Economic Times and India Today)*. The reason is an oversupply with few parallels anywhere in the world.

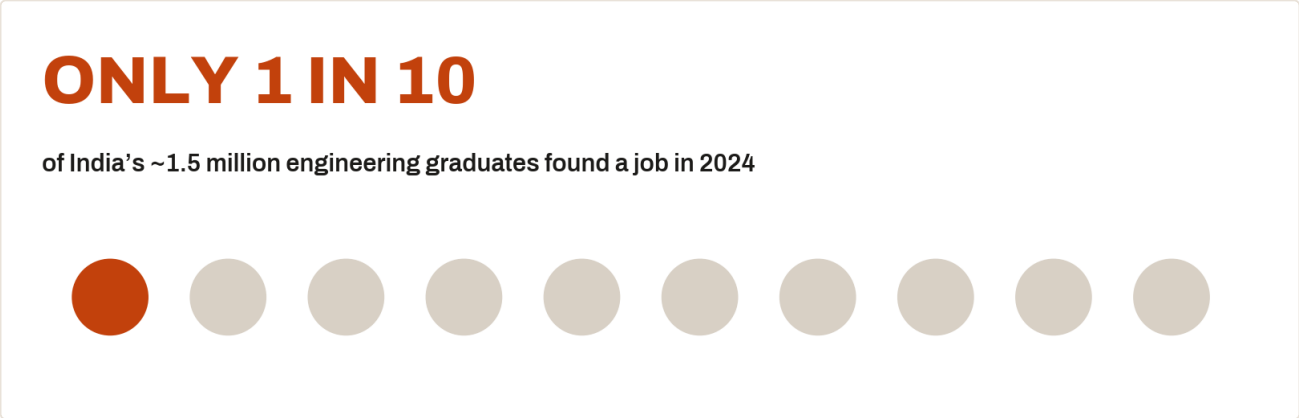

Figure 2. The oversupply behind the frozen wage: a queue so long there is no pressure to pay more.

Source: TeamLease estimate that about one in ten of India's ~1.5 million annual engineering graduates found a job in 2024.

When the queue is that long, the starting wage never has to rise. The outsourcing model was built on exactly this: large volumes of low-cost junior labour doing routine, repetitive work, with the entry wage as a floor that never had to move.

And stagnant pay is only half the injury. The other half is inflation. A salary that stands still while prices climb is not standing still at all; it is shrinking. Adjust the fresher's starting wage for inflation, and its *real* value, what it can actually buy in rent, food and a way to live in the city you work in, has roughly halved over the very years it stayed nominally flat. The young engineer who joins today on a number that looks

similar to 2008 is materially poorer than the one who joined then. Reporting on IT freshers now routinely notes that the starting wage buys less than many skilled trades. The escalator did not just stop. It began moving down.

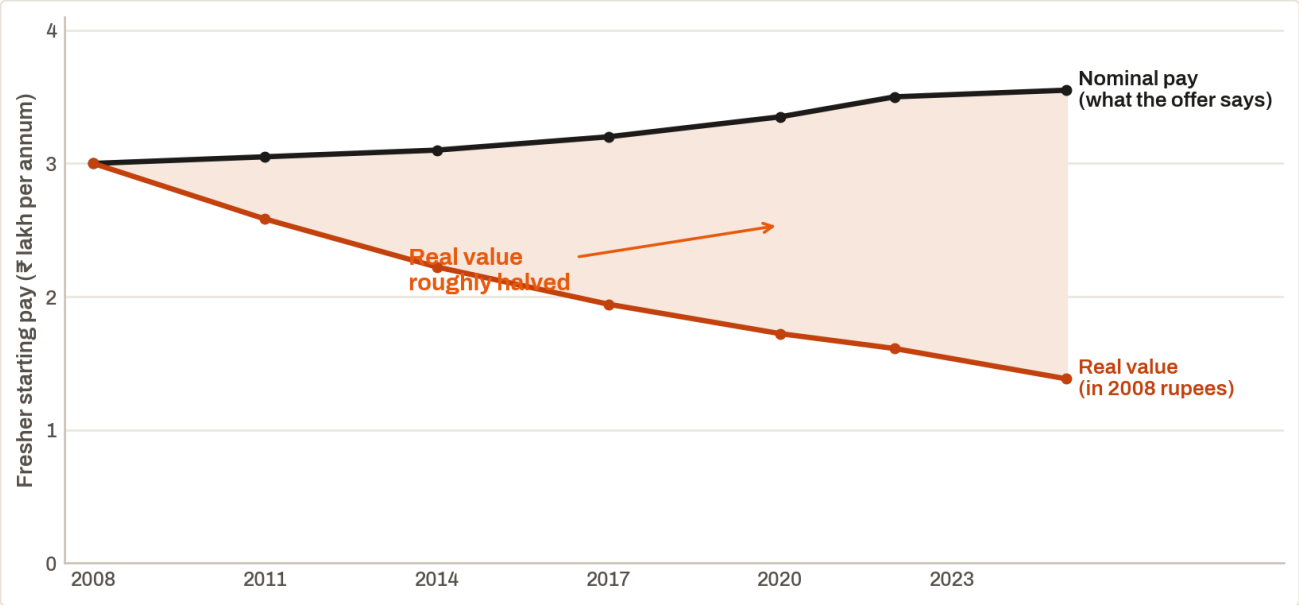

Figure 3. The escalator running backwards: a fresher's pay looks flat, but its real value has halved.

Source: nominal fresher pay compiled from reporting by The Economic Times, India Today and Moneycontrol; deflated by CPI (MoSPI). Indicative.

That floor is now the most exposed surface in the building, because the very tasks freshers were hired to do are the tasks AI does fastest and cheapest. The stagnation was the early warning. What comes next is not stagnation. It is subtraction.

PART II · AI: THE ACCELERANT, NOT YET THE RESCUE

04 The bottom rung is already disappearing

There is a hopeful story about AI in which it is a pure tailwind: new tools, new industries, new jobs. That story is true in the long run. It is not the story of the next few years, and pretending otherwise does India's young no favours.

The near-term reality is already visible in the data, and it is worth setting it out plainly rather than in adjectives. The pain is not a forecast. It is a measurement.

Table 1. **The squeeze, in the data: what is already happening to entry-level and tech work in India.**

SIGNAL	WHAT IS HAPPENING	SOURCE
Entry-level IT roles	Already down **20 to 25%** to automation	EY, 2025
Tech workforce growth	Slowed to **2.3%** in FY26, even as the industry grew	NASSCOM
TCS headcount	About **23,400** jobs cut in the year to March 2026	Company filings
Tech-ecosystem layoffs	About **40,000** in roughly a year, many mid-level	TeamLease Digital
Routine tech tasks AI can do	**20 to 40%** of common coding, testing and documentation	Industry estimates
Tech-services jobs at risk by 2031	Up to **2 million**	NITI Aayog

Compiled from the sources named. Figures reflect reported estimates as of 2025–2026.

The mechanism is not mysterious. As one recruiter put it, where a firm once needed ten people writing and fixing code, it may now need one who knows how to direct AI to do the same work. Routine, rules-based, repetitive roles, precisely the roles that absorbed millions of graduates, are the first to compress. Economists at Nomura describe the pattern plainly: entry-level routine jobs displaced, mid-level jobs transformed. TeamLease Digital is blunter still: this is a structural, not cyclical, correction, driven by AI-led productivity compression.

This is the part that must be said clearly, because it is the part everyone would rather soften: in the near term, AI will reduce jobs. The rung at the bottom of the ladder, the one a fresh graduate steps onto, is the rung being sawn off first.

05 Will fall before they rise: the three-to-five-year valley

Will AI eventually create new work? Almost certainly. Every general-purpose technology in history has, in time. But “in time” is doing enormous work in that sentence, and a 21-year-old cannot eat a long-run average.

India’s own apex policy think tank has put numbers to the fork in the road. An October 2025 NITI Aayog assessment warns that AI-driven automation could displace up to two million jobs in India’s tech-services sector by 2031, and, in the same breath, finds that with strategic, large-scale skilling the sector could instead add around four million jobs over five years. Read those two numbers together and the message is unambiguous: the technology does not determine the outcome. Preparation does.

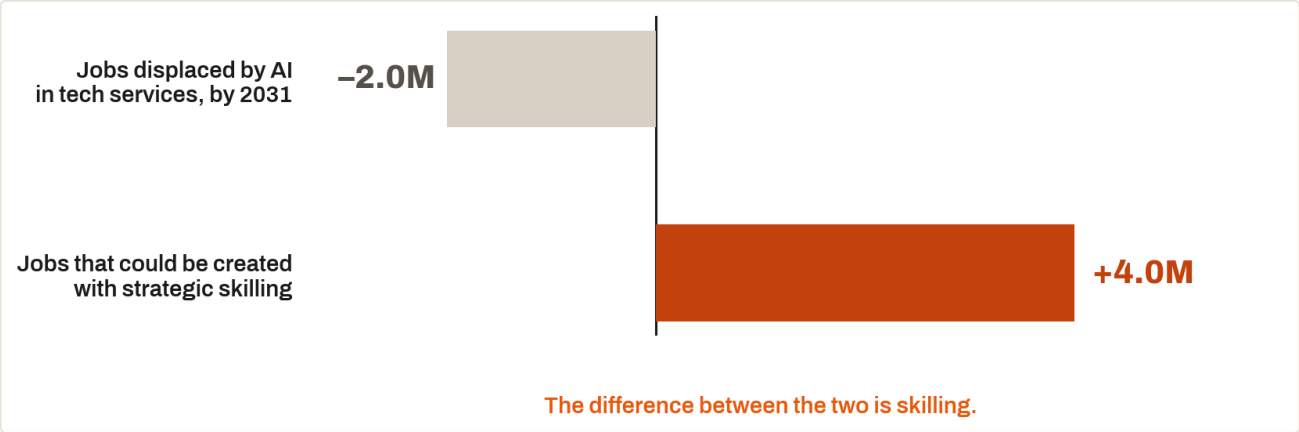

Figure 4. Two futures for Indian tech employment, and the only variable that decides between them.

Source: NITI Aayog assessment of AI's impact on India's technology-services workforce, October 2025.

We cannot honestly promise the precise net number; nobody can yet. But notice the asymmetry the evidence does show. The losses in Table 1 are arriving now, and they are measurable. The gains are conditional (they depend on skilling that has barely begun) and lagged (the new roles are higher-skill, fewer per unit of output, and years from scale). For anyone graduating in the next three to five years, that asymmetry is the whole problem: the old jobs are thinning before the new ones are ready, and nobody can yet describe the new jobs precisely, because they are still being invented.

The implication is severe and immediate. You cannot plan a career around roles that do not yet have names. What you *can* do is become the kind of person who thrives whatever the roles turn out to be: someone fluent enough in AI to ride whichever wave forms. The pain is real and present. The response cannot be to wait it out.

06 Industry can't carry you, and colleges can't keep up

Two institutions have historically caught India's graduates: industry, which hired them, and colleges, which prepared them. Both are now under strain that limits how much either can help.

Industry is busy saving itself. India's $280-billion IT-services sector was built on labour arbitrage, selling the time of large, low-cost teams. AI attacks that model at its root, and clients and investors are openly questioning the long-term viability of businesses built on big headcounts. The industry's own task, as observers put it, is to evolve from a symbol of labour arbitrage into a player in the intelligence economy. A sector mid-reinvention, rationalising its workforce and re-evaluating which skills it even needs, is in no position to resume absorbing graduates by the hundred thousand. Even where it hires, the signal has shifted decisively, from mass recruitment toward selective, AI-ready, specialised talent.

Colleges, for their part, face a structural lag they did not choose. A curriculum takes years to design, approve and roll out; the tools and techniques it teaches can be obsolete within months of release. No syllabus committee, however diligent, can keep pace with a technology moving this fast. This is not a criticism of teachers; Indian education does teaching as well as any system on earth. It is a recognition that the thing the market now demands cannot be delivered by content alone, however current. The gap between what is taught and what is needed is not a temporary error to be corrected. It is a permanent feature of a world where the tools change faster than any curriculum can.

If neither the employer nor the institution can be relied on to close the gap, the centre of gravity has to move. It has to move to the individual, and to a fundamentally different idea of what they are preparing for.

PART III · THE ANSWER: ONE CAPABILITY, TWO DOORS

07 The one durable capability: become adept at AI, by building

If there is a single skill worth betting a future on, it is fluency with AI itself, not as a topic to be studied, but as a capability to be wielded. It is the one thing that holds its value across the valley, because whatever specific jobs emerge, they will be done with these tools, by people who can direct them well.

The catch is that this capability cannot be transferred the way knowledge can. You can be lectured about AI, read about AI, pass a certificate in AI, and still be unable to build a single working thing with it. Adeptness is not knowledge; it is a motor skill of the mind. You do not lecture someone into swimming, or certify them into riding a bicycle. They learn by doing it, badly at first, with feedback, again and again. AI is no different. The only way to become adept at building with AI is to build with AI.

This is where India's great strength and its great blind spot meet. Our education system is superb at the first three rungs of capability: *watching*, *studying*, *certifying*. It builds awareness, knowledge and credentials at a scale the world envies. What it has rarely been asked to build is the fourth rung: *proof*, the demonstrated ability to take a real problem and make a working solution with AI. For decades that rung was optional, because a credential was enough to get hired. It is no longer optional, because the market has changed its question from "what do you know?" to "show me what you can do."

And the gap is wide. In Orange Caterpillar's own assessment of where students actually stand, on a ladder that runs from passive *Spectator* to genuine *Maker*, the large majority sit on the bottom two rungs: aware of AI, perhaps having tried a chatbot, but unable to show a single thing they have built with it. Roughly six in ten are, in our terms, Spectators or Bystanders. Only a small minority can build and demonstrate. That is precisely the gap the next decade will reward closing, and it is closeable, because building is a skill, and skills respond to practice.

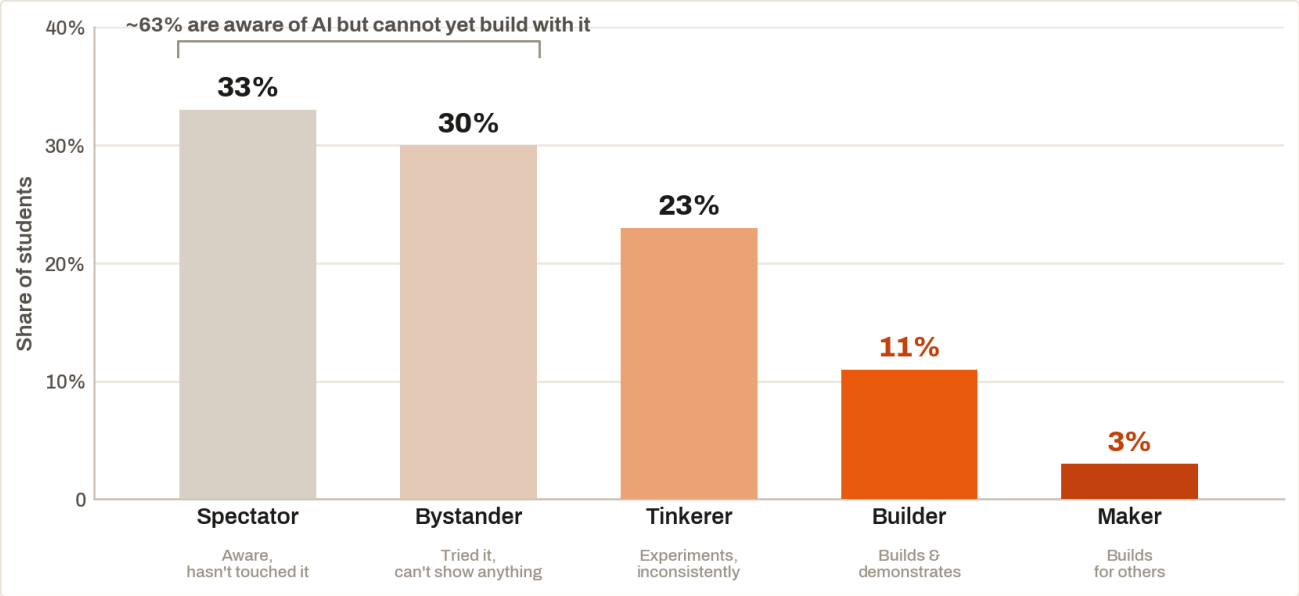

Figure 5. The build gap: most students are aware of AI but cannot yet build with it.

Source: Orange Caterpillar Research. Illustrative distribution across the SWISH capability ladder (Spectator to Maker).

India already holds about 16% of the world's AI talent, and more than 90% of Indian employees already use generative-AI tools at work *(India Skills Report 2026, Wheebox–ETS)*. The raw aptitude is here. What is missing, at scale, is the habit of building with AI: the move from knowing to making.

08 What "building" actually means

"Learn by building" can sound like a slogan. It isn't. Building with AI is a specific, repeatable loop, and it is the same loop whether the output is a career-ready AI agent or a live micro-venture. Naming it matters, because what can be named can be taught, practised and measured.

1. **Pick a real problem.** Not a toy exercise, but a specific job or pain, ideally local and concrete. A clinic drowning in appointment calls. A shop with no online presence. A task someone does by hand every week.
2. **Frame it from first principles.** Before touching a tool: what is this really for, what does "good" look like, what must never go wrong? This is the thinking layer, the part that doesn't go obsolete when the tools change next year.
3. **Build it with AI.** Make a working thing: an app, an agent, a product. Do the task by hand once and time it; that is your baseline. Then build the AI version and run it on real data. The output is something that works, not a description of something that could.
4. **Measure the gain.** A real number you generated: time saved, errors cut, customers served, not a claim. The number is what separates someone who built something from someone who watched a demo.
5. **Tell the story.** Turn the result into a narrative a recruiter, a customer or an investor remembers, down to the one line that lands. A build no one understands is a build that doesn't count.

Then repeat: point the same loop at the next problem, and the next. Capability is the residue of reps. A student who runs this loop five times has five proofs, a measured track record, and something far more valuable than any of them: the settled confidence that they can walk up to an unfamiliar problem and build their way through it. That confidence, not any single tool, is what the AI economy actually pays for.

09 Two doors open for the AI builder

Becoming adept at AI, really able to build with it, is the one move that changes a young person's options. And it changes them in two distinct directions. Master it, and two doors open. Most graduates will walk through both at some point; what matters is that *both* are now reachable, and that the key to each is the same.

DOOR ONE First among equals, in the job that remains

The shrinking pool of good jobs has not vanished, and it will not. There will still be roles: fewer, more selective, more demanding, but real. And in that tighter market, the graduate who can build with AI is no longer one of many indistinguishable degree-holders. They are first among equals. When the recruiter asks the question every recruiter now asks, *show me what you can do with AI*, they have an answer the others don't: a working agent, a live product, a measured result they can demonstrate in ninety seconds. Same degree, same campus, same marks; one of them can build with AI, and that is who gets the offer.

The kind of thing they build for that door is not a class project. It is a working AI agent that does a real business job, and the same pattern carries across every domain a recruiter cares about.

BUILDS THAT WIN THE JOB · AI AGENTS FOR REAL BUSINESS FUNCTIONS

Recruiting. An agent that reads a stack of résumés, scores them against the criteria with evidence, and returns a ranked shortlist.

Customer support. An agent that triages a ticket queue by urgency and impact, and escalates anything that touches money or law.

Sales. An agent that researches a lead, finds the angle, and drafts outreach ready to send.

Finance. An agent that reads invoices, flags the ones needing human approval, and prioritises the rest for payment.

Operations. An agent that reads the week's shipment data and flags which deliveries are late or at risk.

Quality & testing. An agent that turns a spec into test cases, edge cases and expected results.

The market pays for this, and the demand is climbing fast. India's requirement for AI talent is set to more than double, from roughly 600,000 today toward 1.25 million by 2027 *(Deloitte)*. Inside the same graduate pool, the commodity fresher role pays around ₹3.5 lakh, while specialised AI, cloud and cybersecurity roles pay several times more.

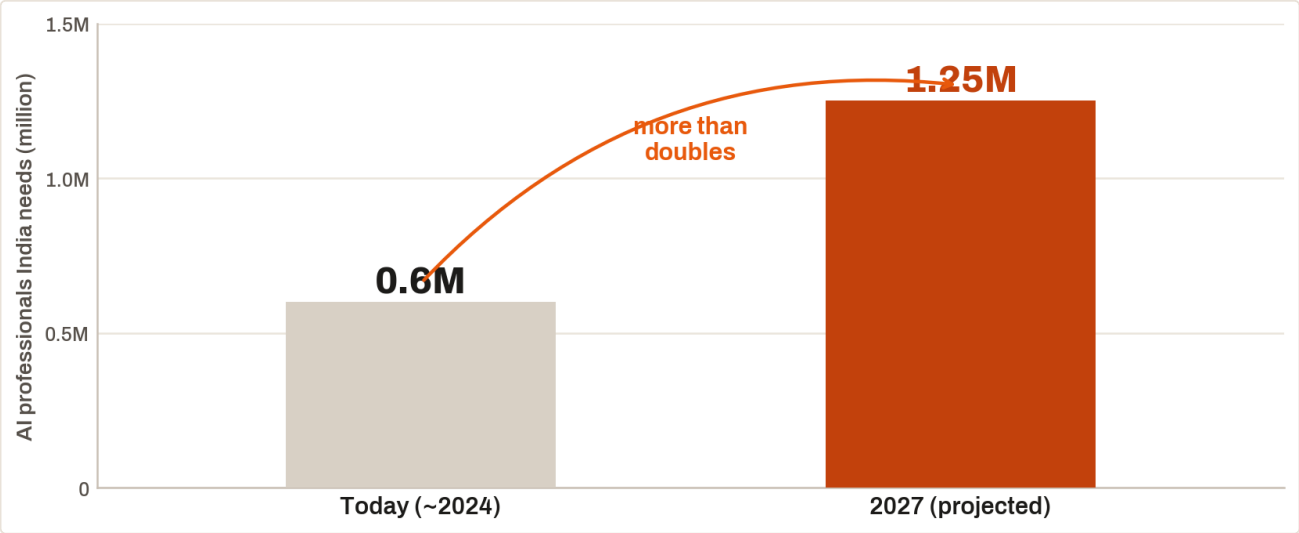

Figure 6. The market is pulling hard: India's demand for AI talent is set to more than double by 2027.

Source: Deloitte estimate of India's AI talent demand, ~600,000 today rising toward 1.25 million by 2027.

And the reward for being able to build is not static; it is widening. PwC's global research finds a wage premium of around 56% for workers who can demonstrate AI skills, up from 25% just a year earlier. Door One, then, is not a consolation. It is the best-paid seat in a tightening room, and the ability to build with AI is the ticket to it.

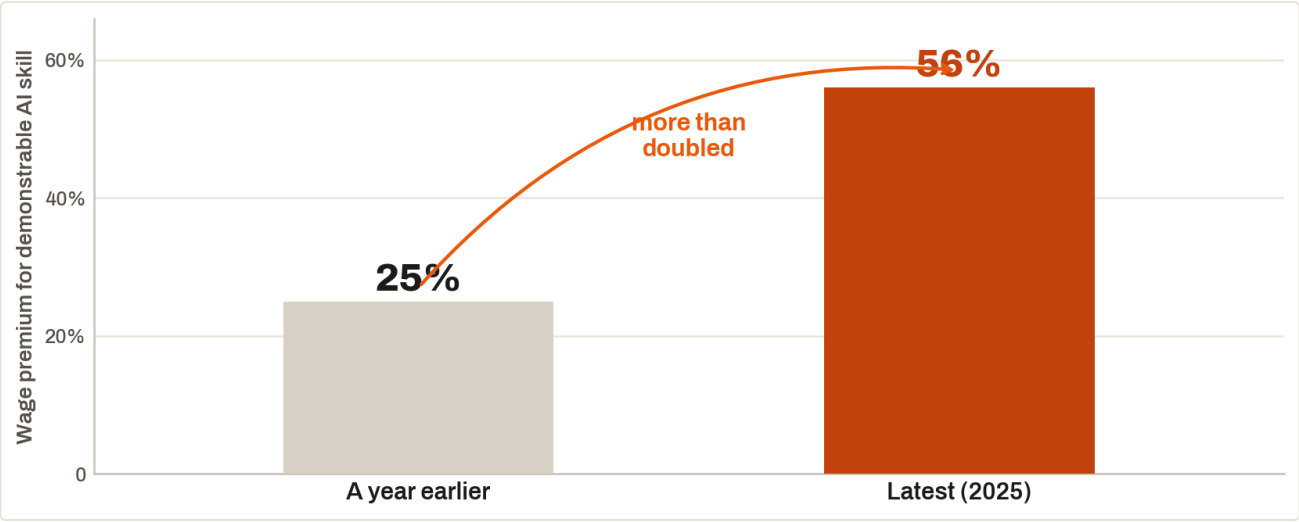

Figure 7. The reward is widening: the wage premium for demonstrable AI skill, year on year.

Source: PwC Global AI Jobs Barometer, 2025.

DOOR TWO

A venture of your own

For many, though, there will be no salaried seat at all, not for lack of merit, but because the seats do not exist in the numbers required. For them, and for anyone with the appetite, the same capability opens a second door: building a venture of their own. If jobs will not grow fast enough to absorb the talent, the talent can create its own work, and AI is what finally makes that realistic for an ordinary graduate, not just a funded few.

This is not a fallback for those who "didn't get placed." It is, for a growing share of this generation, the more rewarding path, and the one that returns India to something it has always been. The next section is about that door.

The shift, in one line.

The question is moving from "how do I get a job?" to "what can I build?", and AI is what makes the second question answerable by almost anyone.

10 A nation of micro-ventures, again, but builders this time, not just traders

What makes the second door credible now, in a way it simply wasn't a decade ago, is AI. The historic barriers to starting something, capital, a team, technical skill, time to market, are exactly the barriers AI demolishes. A single person can now design a product, build a working web app, stand up an AI agent to run an operation, generate the brand and the content, and reach a market, in days, for almost nothing. Work that once needed a funded team of ten can be done by one capable builder with AI. The minimum viable founder has shrunk to a size of one.

And here is the part that should give India confidence rather than fear: none of this is foreign to us. For most of its history, India has been a land of micro-ventures: the shopkeeper, the trader, the tailor, the workshop, the family enterprise. Self-employment is not the exception in India; it is the norm. Even today, after three decades of large hiring engines, 58.4% of Indian workers are self-employed, against barely 22% in regular salaried jobs *(Economic Survey of India, drawing on PLFS 2023–24)*. The salaried job, the thing we have taught a generation to treat as the only real success, is statistically the unusual outcome. The micro-venture is the Indian default.

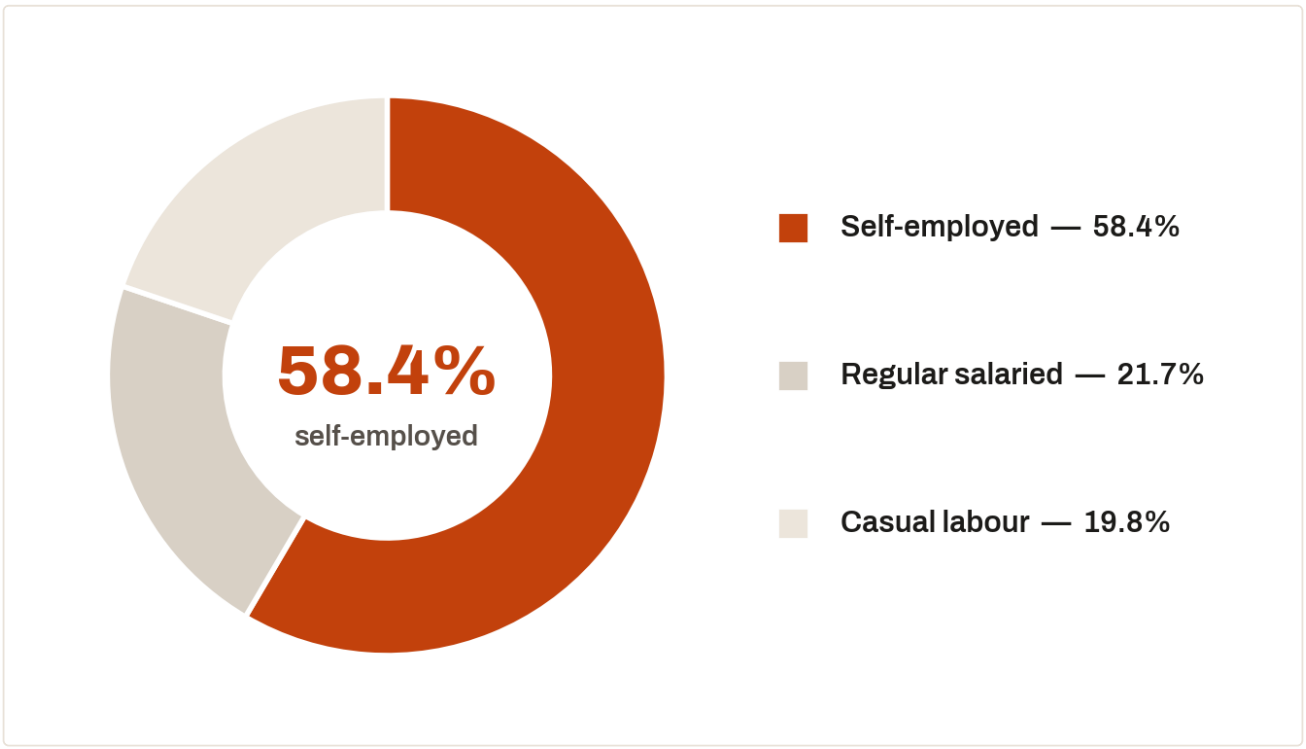

Figure 8. India is already a nation of micro-ventures: how Indians actually work.

Source: Economic Survey of India 2024–25, based on Periodic Labour Force Survey 2023–24 (MoSPI). Shares of the employed workforce.

But there is a crucial distinction the data also reveals, and it is the whole point. India's self-employment is mostly low-value and, increasingly, distress-driven. The rise in self-employment in recent years has come alongside *falling* average earnings; monthly income from self-employment actually dropped from about ₹14,800 to ₹13,279 between 2017–18 and 2023–24, and the overwhelming majority of the self-employed are own-account workers who employ no one and operate at the margins of survival. This is the micro-venture as India has practised it for centuries: largely *trading*, buying and selling, reselling, intermediating, with thin margins, little leverage and no scale.

The opportunity AI opens is to upgrade the entire category, from trading to building. The next generation of Indian micro-ventures need not be trading micro-ventures. They can be *building* micro-ventures: enterprises that create a product or a service with real value, powered by AI that gives a single founder the leverage that once required capital and a team. A student in a Tier-3 town can build a software product, an AI-run service, a regional brand, and reach customers far beyond their street. The instinct to run one's own venture is already in the national DNA. AI is the tool that turns that instinct from eking out a living into building real value.

Not a unicorn.

This is not about chasing a billion-dollar exit. It is about building enough, with AI, that no enterprise has to hand you a salary. Economic independence, not a moonshot, is the goal within reach for most.

That is worth saying plainly, because the word "venture" carries baggage. The aim here is not the funded, hyper-growth startup chasing a unicorn valuation. For the overwhelming majority, the aim is more grounded and more liberating: to build something that earns enough to live well and with dignity, on your own terms, without waiting for an employer to choose you. AI is what makes that level of independence attainable for an ordinary graduate, in a way it never was before. A nation of builders, not just traders, this time, each able to stand on their own.

A FIELD NOTE · THE OLD MICRO-VENTURE vs THE NEW

THE TRADING MICRO-VENTURE · what India has mostly done

- Buys and resells; intermediates; moves goods others made.
- Margins are thin and capped by inventory and footfall.
- Output is limited by the founder's own hours.
- Little leverage, little scale, easily copied next door.

THE BUILDING MICRO-VENTURE · what AI now makes possible

- Creates a product or service with genuine value.
- AI supplies the leverage that once needed capital and a team.
- One founder can design, build, automate, market and serve.
- Can reach customers far beyond the street, and compound.

WHAT A BUILDING MICRO-VENTURE LOOKS LIKE · ACROSS THE ECONOMY, BUILDABLE TODAY

Agriculture. An AI crop-and-price advisory for local farmers: tailored guidance, in the local language, delivered by phone and sold as a low-cost seasonal subscription.

Healthcare. An AI front-desk for neighbourhood clinics and dentists: booking, reminders and records handled by an agent, sold as a monthly service.

Education. AI-built tutoring and practice in the regional language for a specific exam or skill, monetised through subscription or local tie-ups.

Retail & consumer. A hyperlocal brand: a regional food, handloom or craft product sold direct, with an AI-built storefront, AI-generated content and an order-taking agent.

Food & operations. A tiffin or cloud-kitchen run lean by AI: demand forecast, routes planned, orders and supplies handled, by one operator instead of a team.

Local manufacturing & trades. A make-to-order studio: furniture, signage, jewellery priced to the gram, designed, quoted and marketed with AI, made on demand.

None of these requires venture capital, a co-founder or a year of runway. Each requires a builder with AI: someone who can frame a real problem and use AI to make a working solution. That is a capability a college can deliberately develop, a parent can deliberately encourage, and a student can deliberately acquire. Which is exactly what the final part is about.

PART IV · WHAT TO DO NOW

11 Three audiences, one shift

A diagnosis without a prescription is just pessimism. The argument so far points to a single shift: from seeking to building, learned by doing, with AI as the lever, opening both the placement door and the

venture door. Here is what that shift asks of each of the three groups who will decide whether India makes it.

STUDENTS

Stop preparing to be picked. Start preparing to build with AI.

- **Optimise for capability, not just placement.** A placement is one outcome on one day. The ability to build with AI is an asset that compounds for a lifetime and opens both doors, the job and the venture. Aim there.
- **Become adept at AI the only way it can be learned: by building.** Don't collect another certificate you can't demonstrate. Pick a real problem this week and make a working thing with AI. Then do it again. Ship badly, improve, repeat. Reps are the curriculum.
- **Build a portfolio of proof.** Walk into any room, an interview or a customer meeting, able to *show*, not describe: a working app, a live agent, a real result. In placements it makes you first among equals; in a venture it is your product.
- **Treat a micro-venture as a first-class option.** Not a fallback if placement fails, but a serious, credible path. You are not chasing a unicorn; you are building enough that no employer has to pay you a salary. Find a local problem, build an AI-powered solution, charge for it.
- **Cultivate the builder's mindset.** Bias to action over endless preparation. Comfort with not knowing. The instinct to make something imperfect today rather than plan something perfect forever. This temperament is now the core skill.

PARENTS Update the script. The safe path is now the risky one.

- **Retire the old certainty.** "Degree, then job, then security" worked because the hiring engines were growing. They are stalling. Betting a child's entire future on being absorbed by them is no longer the cautious choice; it is the gamble.
- **Measure success differently.** Not by the package on placement day alone, but by whether your child can create value with AI, which is what makes them both more hireable and able to build their own income. That capability is the real security now.
- **Make building respectable at home.** A child who spends the weekend building an AI app or a small venture is not "wasting time" that should go to one more test-prep class. They are doing the single most important work of their education. Encourage it.
- **Remember your own roots.** A generation or two ago, most Indian families ran their own small ventures. The salaried job was the recent anomaly, not the eternal norm. Supporting a building child is a return to form, not a leap into the dark.
- **Invest in capability over collection.** One real build, mentored and shipped, is worth more than a shelf of certificates. Direct time, money and encouragement toward making with AI, not just credentialing.

COLLEGES Add the rung you were never asked to build.

- **Accept that teaching, while necessary, no longer guarantees employability.** Your lectures, courses and certifications remain the essential foundation. The market now also asks for the one layer they can't produce on their own: demonstrable building with AI. Add it deliberately.
- **Diagnose honestly, then make building structural.** Most students are further back than assumed: aware of AI, unable to show anything with it. Baseline where each student actually stands, then make supervised building a structured experience for every student, not a club for the few.
- **Open both doors.** Prepare students to be first among equals in placements *and* to launch a venture of their own. The same build-based capability serves both; an institution that delivers it improves its placement story and seeds its entrepreneurship story at once.
- **Teach the thinking, not just the tools.** Tools change yearly. What endures is framing a problem from first principles, understanding how the technology works beneath the prompt, and turning a result into a story. Build the builder.
- **Measure the gain, keep the proof, and wire it to the frameworks.** Bookend every cohort with measurement; send each student out with a portfolio. Structure it to be credit-ready under NEP 2020 and to feed IIC, NAAC, NBA and NIRF, so the work and the evidence are the same act.

Closing: the window, and the choice

India is standing on two clocks at once. The hopeful one says we could be a high-income economy within a generation, with the youngest workforce and one of the largest AI talent bases on earth. The sobering one says our demographic window, the 36.7 crore Indians aged 15 to 29 who are our great advantage, begins to narrow after 2030. We have perhaps one decade to convert this dividend before it starts to fade.

The crisis is real, and it is honest to name it: the jobs are not coming in the numbers we need, the old escalator has stalled and is running backwards in real terms, and AI will make the next few years harder before they get easier. Anyone who tells the young otherwise is selling comfort, not truth.

But the response is equally real, and it is within reach. The same AI that is removing the bottom rung is also the most powerful lever ever handed to an individual. Master it, and two doors open: the best seat in the room that remains, and a venture you can build yourself. Both ask the same thing of you: not another credential, but the proven ability to build with AI. And both return India to what it has always been, a nation of builders, this time, not just traders.

The shift will not happen by exhortation. It will happen one student, one parent, one campus at a time, as each stops waiting to be picked and starts learning to build with AI. The next decade of Indian opportunity will not be defined by who collects the most degrees. It will be defined by who learns to build with AI, and what they build.

The whole paper, in two lines.

The jobs are not coming fast enough. So the task, for students, parents and colleges alike, is to raise a generation that becomes adept at AI by building, and uses it to walk through both doors: a better job, and a venture of their own.

Samson David

FOUNDER & CEO

Across more than three decades he has built ventures from scratch and led organisations at global scale, as a founder, a Fortune 100 CXO, an AI-startup CEO and a board member.

Trisha David

CO-FOUNDER & DIRECTOR OF RESEARCH

A top-of-class Biotechnology graduate from Johns Hopkins, she shapes the research foundation and frameworks behind Orange Caterpillar's work.

Orange Caterpillar *is a pathfinder for students, schools and colleges navigating the future of work, helping them add the "build" layer, from career-ready AI agents to live micro-ventures, on top of the teaching institutions already do. This paper reflects the founders' shared point of view; the data is drawn from the public sources acknowledged below, alongside Orange Caterpillar's own research.*

SOURCES & ACKNOWLEDGEMENTS

This paper stands on the work of researchers and institutions who have measured India's labour market and the impact of AI upon it. We gratefully acknowledge them.

Azim Premji University, State of Working India 2026 (Centre for Sustainable Employment). Graduate unemployment held at 35 to 40% since 1983; ~40% for ages 15 to 25; ~7% securing permanent salaried work within a year; ~5 million graduates added vs ~2.8 million absorbed annually (2004–05 to 2023); 36.7 crore youth aged 15 to 29; demographic window narrowing after 2030.

Wheebox–ETS, India Skills Report 2026 (with CII, AICTE and AIU). National employability 56.35%; 90%+ of employees using generative AI; India holding ~16% of global AI talent; demonstrated skills increasingly favoured over degrees.

World Bank, India Country Economic Memorandum: Becoming a High-Income Economy in a Generation (2025). High-income status requires ~7.8% real growth for two decades, higher investment, and the creation of "more and better jobs."

Ministry of Statistics & Programme Implementation, Periodic Labour Force Survey, and the **Economic Survey of India 2024–25**. Workforce composition (58.4% self-employed, ~21.7% salaried, ~19.8% casual); manufacturing employment near 12%; self-employment earnings trends.

NITI Aayog (October 2025 assessment). AI automation could displace up to ~2 million tech-services jobs by 2031, or help create ~4 million with strategic skilling; sectoral analyses including the future of India's semiconductor industry.

EY, NASSCOM, TeamLease Digital, Nomura and Deloitte. On the entry-level decline (~20 to 25%), slowing tech workforce growth (2.3%, FY26), tech-sector layoffs (~40,000), AI-led structural correction, the ~1-in-10 engineering placement rate, and AI talent demand rising from ~600,000 toward 1.25 million by 2027.

The Economic Times, Moneycontrol, India Today and Storyboard18. On two decades of frozen IT fresher pay (~₹3 to 3.6 lakh), the falling real value of that pay, and the AI-skill pay premium.

PwC, Global AI Jobs Barometer (2025) and **WEF, Future of Jobs Report (2025)**. ~56% wage premium for demonstrable AI skills (up from ~25%); ~39% of worker skills transformed or obsolete by 2030.

Boston Consulting Group, India Economic Monitor. High-frequency tracking of India's industrial activity, tax collections and trade against macroeconomic forecasts.

Orange Caterpillar Research. The SWISH capability ladder and the distribution of students across it (Spectator to Maker), drawn from Orange Caterpillar's diagnostic framework.