2026 U.S.-India Subnational Innovation Index

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U.S.-India Subnational Innovation Competitiveness Index

- Evaluates the innovation performance across 51 regions of the United States and 36 regions of India.
- 12 commonly available indicators of innovation.
- Three categories:
  - Knowledge economy
  - Globalization
  - Innovation capacity



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The 2026 US-India Subnational Innovation Competitiveness Index

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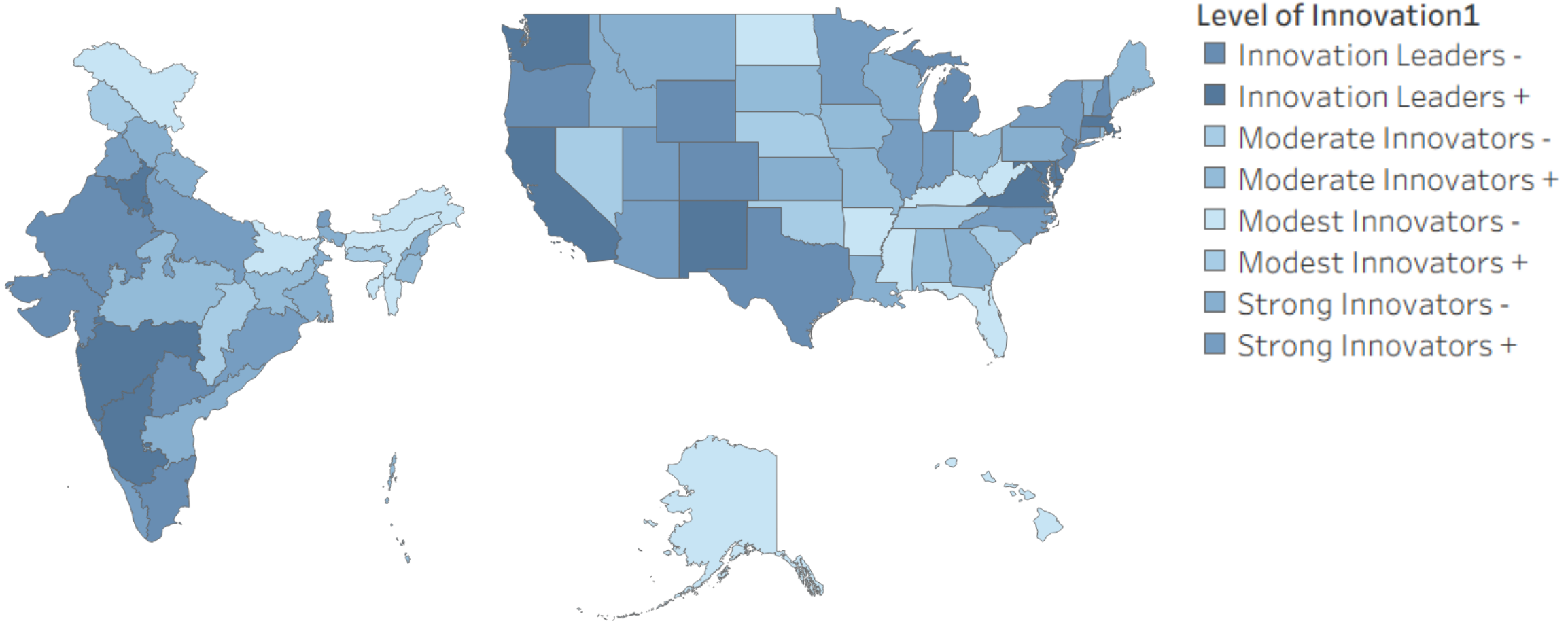
For policymakers to bolster regional competitiveness in the global economy, they first must know where they stand. This report—coauthored by ITIF and the Institute for Competitiveness, India—benchmarks the 87 regions of India and the United States using 12 commonly available indicators of strength in the knowledge economy, globalization, and innovation capacity.

KEY TAKEAWAYS

- The United States claims the top 51 regions, with the District of Columbia (DC), Massachusetts, and California ranking in the top three. The top three Indian states are Chandigarh, Maharashtra, and Delhi, although they rank below all U.S. states.
- The highest scoring U.S. states for the knowledge economy pillar are DC, Wyoming, and Virginia. The top-ranking regions for India are Chandigarh, Puducherry, and Goa. Chandigarh has also surpassed Mississippi's and Hawaii's scores.
- The highest-scoring U.S. states for the globalization pillar are New Mexico, Massachusetts, and Arizona; for India, these are Karnataka, Delhi, and Maharashtra. Besides New Mexico, they have surpassed all other U.S. states in this category.
- The top-scoring U.S. states for the innovative capacity pillar are Washington, Massachusetts, and California. The top-scoring Indian regions are Maharashtra, Delhi, and Haryana. Maharashtra has surpassed 10 U.S. states; Delhi has surpassed Alaska.
- Policymakers must continue to strengthen U.S.–India relations, focusing on building and strengthening critical and emerging technology and R&D collaboration initiatives, which connect start-ups, universities, and venture capitalists in both countries.
- Indian policymakers should prioritize expanding the innovative capacities of states beyond concentrated regions by strengthening skills, research capabilities, digital infrastructure, and access to global investment across all regions.

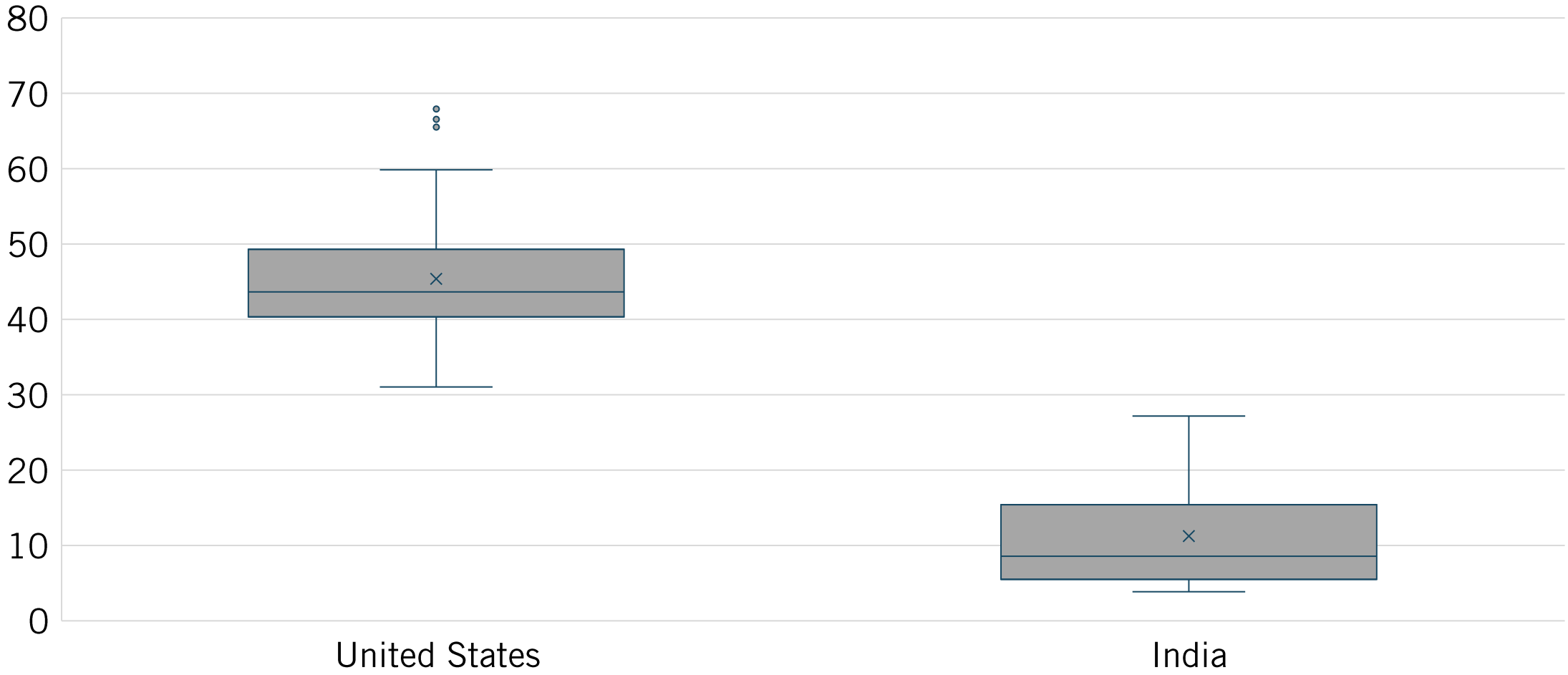
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Overall Innovation Competitiveness Scores



Highest-performing regions in darker shades. Source: U.S.-India Subnational Innovation Competitiveness Index.

Overall Innovation Competitiveness Scores



Overall Results

- All 51 U.S. regions score above all 36 Indian regions.
- Top U.S. regions: the District of Columbia (67.9), Massachusetts (66.6), and California (65.5).
- Top Indian regions: Chandigarh (27.2), Maharashtra (26.8), and Delhi (25.3).
- Chandigarh, India's leader, scores 3.9 points below Hawaii (31.0), the lowest-ranked U.S. state.
- U.S. scores span about 37 points and Indian scores about 23 points; India's median is 8.6, and 22 of 36 Indian regions score below 10.

Distance to the Frontier

- Measures how far each region's overall score is from the leader, the District of Columbia (67.92).
- U.S. regions sit between 1.4 and 36.9 points behind.
- Indian regions sit between 40.8 and 64.1 points behind, so the two distributions do not overlap.
- Most northeastern and eastern Indian states are 63 to 64 points behind.

Region	Points behind DC
Massachusetts	1.37
California	2.41
Washington	8.05
Hawaii (lowest U.S.)	**36.88**
Chandigarh (top India)	**40.76**
Maharashtra	41.13
Delhi	42.62
Assam (lowest India)	64.07

India’s Leaders: Different Routes to the Top

- Indian leaders rise through different pillars; each region’s strongest pillar is in bold.

Rank	Region	Overall	Knowledge	Globalization	Innovation
1	Chandigarh	27.16	**37.16**	3.22	16.86
2	Maharashtra	26.79	13.24	41.85	**30.17**
3	Delhi	25.30	14.77	**45.04**	24.83
4	Puducherry	22.54	**34.14**	2.68	10.68
5	Karnataka	22.06	17.96	**51.50**	13.47
6	Haryana	19.99	9.88	**37.29**	20.97
7	Tamil Nadu	19.94	14.55	18.88	**20.89**
8	Telangana	17.89	15.62	**20.15**	15.36

Knowledge Economy

- Measures the overall quality, skill level, and productivity of a region's workforce and economy.
- Indicators:
  - Professional, technical, and scientific services employment
  - Manufacturing sector productivity
  - Share of workers employed in STEM jobs

Knowledge Economy

- The District of Columbia leads the index, followed by Wyoming.
- Kansas ranked 29th, Delhi ranked 58th, and Ladakh ranked 87th.
- Chandigarh falls in 50th, above Mississippi and Hawaii.
- The District of Columbia, Chandigarh, and Virginia lead in professional, technical, and scientific services employment.
- U.S. states lead in manufacturing productivity and workers in STEM jobs.

The Talent Paradox

- India produces more STEM graduates than any other country, and 42.6% of them were women in 2021–22.
- Yet at least 12 Indian regions have under 2% of workers in STEM jobs, and Delhi has only 2.2%.
- U.S. states range from about 20% to 28% STEM employment; India's highest region, Puducherry, is at 10.6%.
- 88% of India's workforce is in low-competency occupations; only 10–12% hold high-competency roles.
- The gap lies in the education-skills-jobs continuum, not in the supply of degrees.

Globalization

- Measures the integration of the region in the global economy.
- Indicators:
  - Foreign direct investment
  - High-tech exports

Globalization

- New Mexico leads the index, followed by Karnataka, Delhi, Maharashtra, and Haryana.
- North Carolina ranked 29th, Alabama ranked 58th, and Ladakh ranked 87th.
- Five Indian regions lead in foreign direct investment: Karnataka, Delhi, Maharashtra, Haryana, and Telangana.
- U.S. states lead in high-tech exports.
  - Top states: New Mexico, Arizona, and Oregon

Concentration of Investment in India

- Five regions received 81% of India's FDI in 2025; the other 31 regions shared 19%.
- 12 of India's 780+ districts receive 90% of FDI.
  - New Mumbai (27.5%) and Bangalore Urban (23.0%) received more than half of 2025 FDI equity.
- Three of India's top four regions are city-states: Chandigarh, Delhi, and Puducherry.
- Populous states lag: Uttar Pradesh ranks 15th and Bihar 33rd among Indian regions.
- Spreading investment requires building capabilities, not only offering incentives.

Innovation Capacity

- Measures a region's ability to develop, support, and commercialize new ideas, technologies, and businesses.
- Indicators:
  - AI policy
  - Renewable energy consumption
  - Household with internet facility
  - R&D personnel
  - R&D intensity
  - Number of active businesses
  - Patent output

Innovation Capacity

- Washington leads the index, followed by Massachusetts.
- Alabama ranked 29th, Chandigarh ranked 58th, and Lakshadweep ranked 87th.
- Maharashtra ranked 42nd, above 10 U.S. states, and Delhi ranked 52nd, above Alaska.
- 7 Indian and 45 U.S. regions have AI policy.
- Indian regions lead in business creation while U.S. states lead in other indicators.

The R&D Gap

- R&D intensity: Massachusetts invests 9.2% of GDP in R&D; India's highest region, Himachal Pradesh, invests 0.28%.
- 11 Indian regions report R&D intensity at or near zero.
- PCT patents per million residents: the District of Columbia 1,966 and Massachusetts 587, versus Chandigarh 330; about half of Indian regions report 10 or fewer.
- R&D personnel: 21% of employees in Washington, versus 0.06% or less in every Indian region.
- Indian regions need a triple helix of government, universities, and industry, with more private R&D.

AI Readiness

- 45 of 51 U.S. regions have an AI strategy, compared with 7 of 36 Indian regions:
  - Gujarat, Haryana, Maharashtra, Odisha, Rajasthan, Tamil Nadu, and Telangana
- The United States seeks to defend and extend its frontier position (America's "AI Action Plan," 2025).
- India is pursuing catch-up and diffusion through the IndiaAI Mission: shared compute, datasets, foundation models, and start-up support.
- IndiaAI had onboarded 38,000+ GPUs by February 2026, but access to compute is not control over chips, infrastructure, or frontier-scale training.

U.S.–India Innovation Ties

- The two innovation systems are increasingly interconnected, but the relationship is asymmetric:
  - United States: Frontier research, advanced computing, foundational technologies, and venture capital
  - India: Software and engineering depth, a large technical workforce, and a growing market for deployment
- The U.S.–India TRUST initiative (2025) deepens cooperation in AI, semiconductors, and quantum technologies.
- Chipflation raises costs for India, which relies on imported semiconductor components.
- Success should be measured by growth in Indian research capability, indigenous IP, and technology-owning firms.

Lessons from the U.S. Map

- U.S. states are not uniform: scores span about 37 points from the District of Columbia to Hawaii.
- Leaders combine pillars differently: among U.S. states, Washington ranks 1st in innovation capacity, but 47th in globalization.
- Energy lifts some scores: Wyoming and Louisiana rank 2nd and 7th in knowledge economy but 38th and 49th in innovation capacity.
- U.S. manufacturing productivity fell from 102.8 in 2013 to 99.3 in 2025 (2017 = 100).
- What travels is the mechanism: universities, firms, and government in a continuous loop, as around Stanford and MIT.

Reading the Results With Care

- Per-capita and per-GDP measures favor small, dense regions such as Chandigarh, Delhi, and the District of Columbia.
- Small bases can inflate shares, for example Manipur’s 15% high-tech export share.
- Energy commodities raise manufacturing productivity in Wyoming, Louisiana, and Texas.
- R&D personnel and state-level R&D data are not fully harmonized across the two statistical systems.
- Indicator data years range from 2021 to 2025.

Policy Recommendations: United States

- Strengthen STEM education at universities and community colleges.
- Encourage investment in automation, advanced machinery, digital technologies, and workforce training.
- Help domestic firms expand into international markets through methods, such as export assistance.
- Support university research, public-private research partnerships, and programs that help universities and businesses compete for federal research funding.
- States without one should develop a comprehensive AI strategy.

Policy Recommendations: India

- Address the education–skill continuum problem, which will help it move toward creating high-productivity jobs.
- Focus on fostering investment, strengthening regional integration, and connecting domestic firms to global value chains.
- Stronger U.S.–India collaboration in research, computing, academia, talent, and commercialization.
- Invest in compute infrastructure, datasets, research institutions, start-ups, and model development.
- Address regional gaps in R&D, patents, entrepreneurship, connectivity, and AI policy.

Policy by Pillar: Knowledge Economy

United States

- Develop and retain highly skilled workers while helping firms raise productivity.
- Strengthen STEM education, expand apprenticeships and industry-recognized training, and build partnerships between educators and employers.
- Raise manufacturing labor productivity through automation, advanced machinery, digital technologies, and workforce training.
- Make it easier to retain graduates and attract skilled workers from other states and abroad.

India

- India's demographic advantage becomes competitiveness only if more of its workforce joins knowledge- and technology-intensive activities.
- 88% of the workforce is in low-competency occupations; only 10–12% is in high-competency roles.
- PTS employment ranges from 1.16% in Bihar to 15.75% in Chandigarh, and STEM employment varies sharply across states.
- Address the education–skill continuum to create high-productivity jobs, not just lower-skill jobs.

Policy by Pillar: Globalization

United States

- Attract FDI that complements existing and emerging industrial strengths.
- Compete on fundamentals rather than tax incentives: skilled labor, infrastructure, reliable energy, research institutions, and efficient permitting.
- Target foreign investment that reinforces regional clusters.
- Use export assistance to help small and medium-sized firms find customers, meet standards, and join global supply chains.

India

- The challenge is the concentration of FDI more than its amount.
- Of $57.2 billion in FDI equity in 2025, more than half went to two locations: New Mumbai (27.54%) and Bangalore Urban (22.96%).
- Delhi, Ahmedabad, and Gujarat follow; 90% of FDI is concentrated in 12 of 780+ districts.
- More regions need the capabilities that make investment viable: skilled labor, infrastructure, supply networks, and sector clusters.

Policy by Pillar: Innovative Capacity

United States

- Strengthen the ability to generate new knowledge and turn it into commercially valuable technologies.
- Support university research, public-private research partnerships, and competition for federal research funding.
- Encourage private-sector R&D through incentives that reduce the cost and risk of new technologies.
- States without one should adopt an AI strategy covering research, adoption, workforce, infrastructure, and government use.

India

- The challenge is not only AI adoption but a stronger position in the underlying technology.
- India is a large AI user but lacks a frontier ecosystem comparable to those around OpenAI in the U.S. or DeepSeek and Alibaba in China.
- The IndiaAI Mission aims to narrow the gap through shared compute, datasets, start-up financing, and indigenous foundation models.
- Pursue frontier catch-up and domestic diffusion together, closing regional gaps in R&D, patents, entrepreneurship, connectivity, and AI policy.

Policy Recommendations: U.S.–India Collaboration

- Build critical and emerging technology and R&D collaboration that connects start-ups, universities, and venture capitalists in both countries.
- Expand joint research, compute access, and talent exchange.
- Link Indian clusters (Bengaluru, Hyderabad, Delhi–NCR, and semiconductor ecosystems in Gujarat, Tamil Nadu, and Karnataka) with U.S. hubs.
- Combine efforts to advance AI with stronger decision-making and international collaboration.
- Tailor policy to each region’s capabilities and stage of development.

Questions for Discussion

- Should India build a few world-class clusters first, or spread capability across all states now?
- What would it take for every large Indian state to adopt an AI strategy within two years?
- Can FDI move beyond a dozen districts before skills and suppliers do?
- How can U.S.–India cooperation build Indian IP, not only deployment?
- Why do India's STEM graduates not show up in STEM jobs?

Thank You!

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