

Innovation Rankings for New York State — And Some Policy Implications

In February of 2007, the IT&IF, in cooperation with the Kauffman Foundation, published a detailed analysis of the “New Economy” strengths and weaknesses of each of the 50 states, compiled on the basis of 26 different indices. It also offered extensive recommendations for new economic development strategies that states could adopt. The full report may be found at <http://www.itif.org>. This paper – prepared by the Public Policy Institute, the research affiliate of The Business Council of New York State, Inc. – is a synopsis of key implications for the business community in New York.

New York State’s overall ranking

10th – The weighted average of scores from 26 individual criteria placed New York State with a score of 77.4 (on a scale of 0-100). The U.S. average was 62.1.

The following competing states ranked higher overall than New York State:

1. Massachusetts (96.1)
2. New Jersey (86.4)
3. Maryland (85.0)
4. Washington (84.6)
5. California (82.9)
6. Connecticut (81.8)
7. Delaware (79.6)
8. Virginia (79.5)
9. Colorado (78.3)

Among the competitor states that ranked lower overall than New York State were:

- #14 Texas (68.6)
- #21 Pennsylvania (63.6)
- #23 Florida (63.2)
- #26 North Carolina (63.6)

Strong points for New York State

3rd — **High-wage traded services.** (The share of employment in traded service sectors [services that are not primarily consumed locally, such as finance, and publishing] in which the average wage is above the national median for traded services.) Such jobs account for 19.6% in New York, compared to a U.S. average of 14.5%.

3rd — **“Gazelle jobs”.** (Jobs in “gazelle companies” as a share of total employment. These are defined as companies with annual sales revenue that has grown 20 percent or more for four straight years.) New York is at 11.7%; the national average is 8.0%.

- 4th — Managerial, professional and technical jobs.** (Managers, professionals and technicians as percentage of total workforce.) 23.9% in New York State, vs. national average of 21%.
- 6th — Export focus of manufacturing and services.** (The value of exports per manufacturing and service worker.) New York is at \$30,844 vs. a national average of \$25,374.
- 7th — Total patents.** (The number of patents issued to companies and individuals, per 1,000 workers.) New York's score is 0.96, versus a national average of 0.75. *Note below, however, that New York does not score particularly well when it comes to patents issued only to individuals.*
- 7th — Package exports.** (The number of UPS packages exported per worker.)
- 8th — Broadband telecommunications.** (A weighted measure of the deployment of business and residential broadband lines.) New York scores 5.79, versus a national average of 5.0. The top five are Georgia, California, New Jersey, Florida and Nevada.
- 8th — E-government.** (Uses an index developed by the Center for Digital Government.) New York scores 5.74, versus a national average of 5.0. The top state is Michigan at 6.78, followed by Utah, Indiana, Texas and Ohio.
- 9th — Workforce education.** (A weighted measure based on advanced degrees, bachelor's degrees, associate degrees and/or some college coursework.) Top five states are Massachusetts, Colorado, Maryland, Connecticut and Virginia.
- 9th — IPOs.** (A weighted measure of the number and value of initial public stock offerings of companies, as a share of total worker earnings.) New York's score was 5.3, compared to a national average of 5.0. Top five states are Nevada, Colorado, California, Oklahoma and Massachusetts.
- 11th — Information technology jobs.** (Employment in IT occupations in non-IT companies, as a share of total jobs.) New York's share is 1.47%, compared to a U.S. average of 1.3%. The top five states are Virginia, Maryland, New Jersey, Massachusetts and Connecticut.

Weak points for New York State

- 36th — Technology in schools.** (Based on a weighted average of students per instructional computer in the school, students per high-speed Internet connected computer in the school, and students per Internet-connected computer in the actual classroom.) New York's score was 4.52, versus 5.0 for the nation. South Dakota, Maine, Wyoming, Kansas and West Virginia were the top five.

- 35th — On-line population.** (Internet users as a share of the population.) New York measures 56.8%, versus a national average of 59%. The top five are Alaska, New Hampshire, Utah, Minnesota and Wyoming.
- 33rd — Venture capital.** (Venture capital invested as a share of worker earnings.) New York is at 0.20%, versus a national average of 0.35%. The top five states are Massachusetts, California, Washington, Colorado and Utah.
- 27th — Industry investment in R&D.** (Industry-performed research and development as a percentage of total workers' earnings.) New York is at 2.05%, compared to a national average of 3.17%. The top five states are Delaware, Rhode Island, New Jersey, Michigan and California.
- 27th — Manufacturing value-added.** (The percentage of a state's manufacturing workforce employed in sectors in which the value-added per production hour worked is above the sector's national average.) New York is 23.7%, vs. national average of 26.9%. Top five are Indiana, Massachusetts, Washington, Virginia and North Dakota.
- 23rd — High-tech jobs.** (Jobs in electronics manufacturing, software and computer-related services, telecommunications, and biomedical industries as a share of total employment.) The share of such jobs in New York is 3.5%, below the national average of 3.75%. The top five are Massachusetts (6.46%), Virginia, Colorado, New Jersey and Maryland.
- 23rd — On-line agriculture.** (An index based on the percentage of farmers who have Internet access, combined with the percentage who are using computers for business.) New York's score (5.16) is slightly above the average (5.0). But it's well below the top six states (all tied at 7.18): Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.
- 22nd — Entrepreneurial activity.** (Entrepreneurs [as a share of population] starting new businesses.) New York is about average; the top five states are Vermont, Colorado, Oklahoma, Montana and Idaho.
- 19th — Inventor patents.** (The number of independent inventor patents per 1,000 people.) New York is about average; but California, the top state, is almost double the national average. The other top four states are Utah, New Hampshire, Nevada and Minnesota.
- 19th — Fastest-growing firms.** (The number of Deloitte Technology Fast 500 and *Inc.* 500 firms as a share of total firms.) New York is at 0.020%, compared to a national average of 0.026%. Top five states are Virginia, Massachusetts, Maryland, Utah and New Jersey.

Other indices on which New York's ranking was mediocre included foreign direct investment (14th), and percentage of scientists and engineers in the workforce (15th).

Policy recommendations from the IT&IF

General economic development strategies

- The key metric should be income growth – not just jobs. Higher wages = a higher standard of living.
- The key is no longer competing for jobs, or even investment, as such. Instead, a state's economic development policies must focus on three key characteristics that lead to those things in the new economy:
 1. Technological change.
 2. Higher skills.
 3. Entrepreneurial drive.
- To drive **technological change**, states should:
 - “Tilt” investment incentives and tax credits to favor corporate R&D – with the strongest incentives for R&D work performed in conjunction with, or based at, universities and federal labs. (Corporate decisions about whether and where to make such investments are “much more sensitive to marginal costs” than are decisions about such large-scale investments as plant siting, the Foundation argues.)
 - Provide strong capital support for new research facilities at universities.
 - Emphasize university research and degree programs relevant to leading local industries, or local industry clusters (as opposed to “early stage basic research” and projects that are simply “of interest to faculty”).
 - Fund recruitment efforts that attract research “stars” to universities.
 - Tie a portion of state funding for higher education institutions to their economic development performance – measured in terms of commercialization of research, research supporting key industry clusters, technology transfer, and technical assistance provided to companies in the state. A key metric: the funding universities are able to obtain from industry.
 - Strengthen broadband deployment (more below).
- To produce **higher skills**:
 - Develop math and science high schools.
 - Improve the quality of undergraduate teaching at universities. (By, among other things, requiring public disclosure of a benchmarking survey on student workloads and the quality of teaching.)
 - Institute Professional Masters of Science and Engineering programs.
 - Reward institutions that increase their proportion of degrees in science, technology, engineering and math.
 - Organize workforce training programs as an instrument of economic development policy, not labor policy. Focus training on in-service training of

- incumbent workers in key industry clusters. Use a surcharge on the unemployment insurance tax to fund incumbent worker training.
- Use tax credits to incentivize employers to fund in-service training.
- Focus any investment incentives for companies on the development of *high-paying* jobs, not on gross numbers of new or retained jobs. For example, a state could impose a wage floor on new jobs eligible for incentives.

- To strengthen **entrepreneurial drive**:
 - Provide on-line tools that simplify the process of starting a new business.
 - Compile and link together a comprehensive set of on-line information sources for new businesses, and develop peer-to-peer networks by region.
 - Create entrepreneurship curricula at colleges and universities.
 - Create regional networks of venture capital and “angel investors” to help entrepreneurs find potential sources of capital.

Strategies pertinent to some of New York’s weak points

- A stronger corporate R&D credit has powerful leverage to attract a larger share of corporate R&D dollars to the state.
- Brisker R&D activity tends to correlate with greater entrepreneurship.
- Catalyze and empower industry clusters, through such tactics as creating regional roundtables that bring together industry leaders to discuss common concerns. (Higher manufacturing value-added ratings tend to be found in regions with strong cluster identity, the Foundation says.)
- Support an innovation-focused manufacturing extension partnership program. (“States should not give up on manufacturing.”)
- Traditional cost issues (benefits, energy, taxes, etc.) remain important. Two non-traditional ones – traffic congestion, and the high cost of housing – are increasingly serious problems for business and warrant attention.

Strategies pertinent to some of New York’s strong points

- Economic development agencies should concentrate less on recruiting out-of-state firms and shoring up shaky in-state firms – and more on helping in-state firms that are successfully growing. State data sources such as unemployment insurance payments should be used to identify rapidly growing firms, which should then be asked what they need to help them grow even faster.
- Enact statewide video franchise laws so telecommunications carriers will no longer have to deal with one municipality at a time as they roll out fiber optic services.
- Form “broadband buying coops” in more rural areas to provide a substantial customer base that will attract competing bids for service.
- Develop new or expanded on-line governmental services (for example, in public health and public safety) that increase demand for Internet access.