



GOAL 4

Better integrate Illinois' educational, research, and innovation assets to meet economic needs of the state and its regions.

Illinois has long benefitted from a diversified economy, good physical infrastructure, well-established corporations, and a well-educated workforce. By some measures, Illinois' economy continues to perform well; e.g., its ranking in the State New Economy Index has improved since 1999, though it still remains well behind New Economy leaders Massachusetts, New Jersey, Maryland, Washington, and California.³⁸ In other measures, however, including growth in gross state product and per capita personal income, Illinois' recent performance more closely resembles the lackluster record of its Midwestern neighbors. Furthermore, regional differences in economic performance within Illinois are substantial, with the Northeastern region of the state performing relatively well but many downstate regions experiencing economic stagnation.

RECOMMENDATION:

Boost Illinois into the ranks of the five states with the fastest growing economies.

THE ISSUE: Building a New Economy

- Illinois received an overall grade of “C” in 2007 from the Corporation for Enterprise Development for innovation assets,³⁹ based on factors such as the number of science and engineering graduate students, academic R&D investment, and the number of businesses created via university research and development.
- Illinois ranks slightly above the national average for initial public offerings (IPOs) of stocks to finance new companies, but ranks low in the amount of venture capital provided.⁴⁰ Most small business startups, including those that tend to bring to the marketplace the products derived from university basic

and applied research, depend upon venture capital and angel investors to finance their formative stage.⁴¹

- Illinois does an average to below-average job in creating, retaining, and growing technology startups. The state's scores on innovation assets, initial public offerings, and venture capital show that Illinois needs to step up or risk being left behind in the New Economy.⁴²

Illinois' colleges and universities are central to the development of the state and regional economies, but the roles they play must expand and the connections between higher education and the economy must become stronger. The state must capitalize on the extensive research capacity of Illinois' colleges and univer-

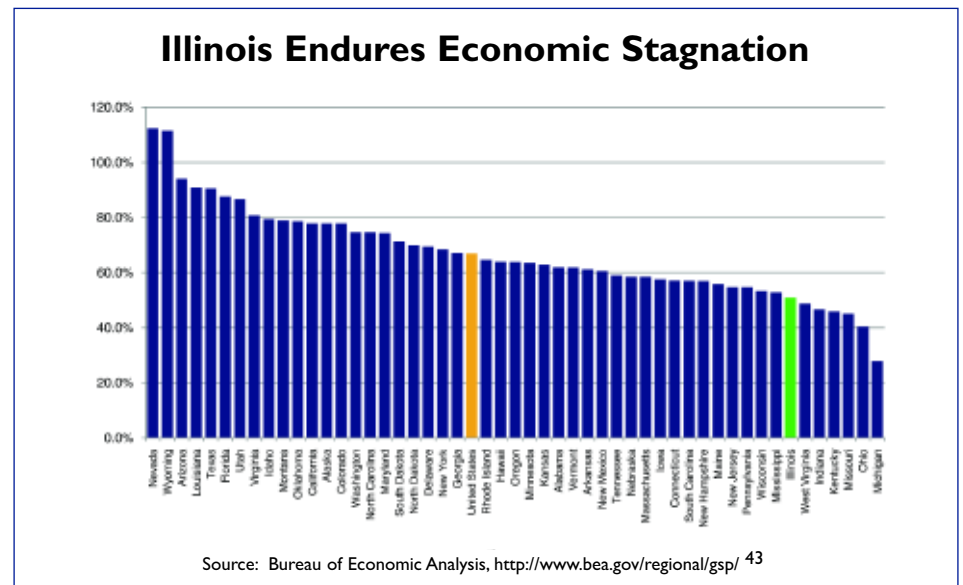


Figure 42. Change in gross state product, 1997-2007. Like its Midwestern neighbors, Illinois' economic growth over the past decade has been far below the national average.



sities and partner with them to help them become more nimble in addressing the workforce needs of regions and employers.

- Illinois universities are in the top 10 states in all major fields with regard to university research and development expenditures, with particular strength in math and computer science.⁴⁴ This has not translated into entrepreneurial activity that drives a revitalized economy.
- The disparate rankings on the two measurements of how investment financing is secured in new business development (i.e., IPOs and venture capital) may be one of the reasons Illinois ranks fairly high in federal research and development expenditures but relatively low in innovation assets and new business startups.

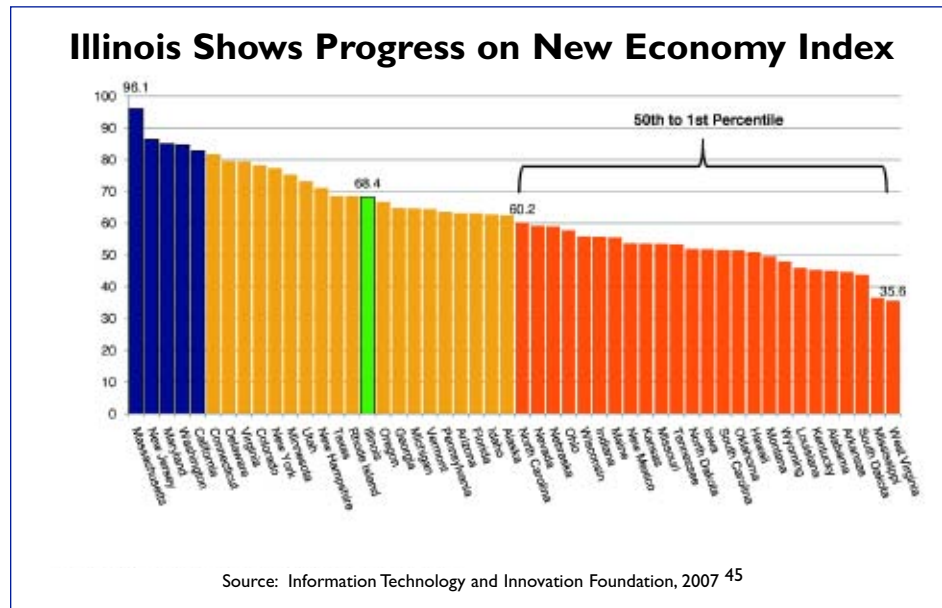


Figure 43. In spite of its slow economic growth over the past decade, Illinois has many competitive advantages. Illinois ranks 16th in the most recent State New Economy Index, having moved up six places since 1999.

Strategies to Meet the Economic Needs of the State and its Regions

STRATEGY: Develop resource pools and incentives that capitalize on state and regional strengths and address state and regional weaknesses.

Action Steps:

- 1) Create pooled state and private sector matching funds to assist colleges and universities pursuing federally sponsored research grants.

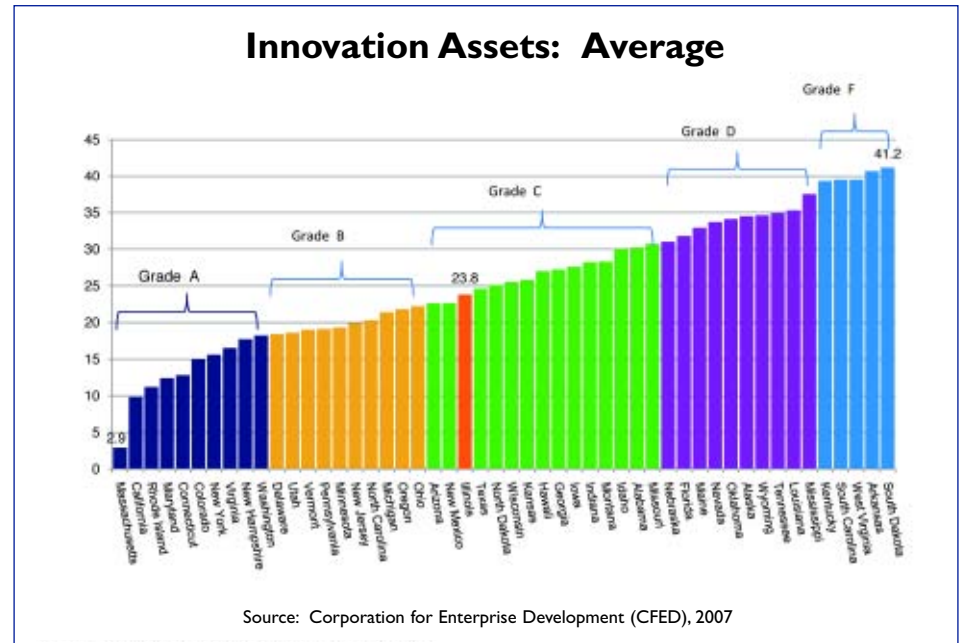


Figure 44. Overall state scores on measures of innovation assets, 2007. Illinois performs at a “C” level in the amount of assets commonly required for future innovation and growth of the state economy.

- 2) Create financing and support for business incubators, particularly in regions that lack sufficient local resources, as vehicles to stimulate research and development, technology transfer, and small business innovation.
- 3) Develop public/private partnerships to provide early-stage support and venture capital for commercialization of research and business development.
- 4) Encourage regular interaction between business, labor, and educational leaders at the regional level to identify regional educational, economic, and cultural needs and develop collaborative solutions.
- 5) Provide tax incentives that will help fill the gap in financing between seed money and venture capital, including such initiatives as angel tax credit programs that encourage more entrepreneurial activity in high-growth small businesses.
- 6) Increase the pool of funds for job training that can be accessed through an employer match by businesses seeking to expand or relocate in Illinois or to retrain incumbent workers to retain businesses in Illinois.
- 7) Expand the number of paid internship and cooperative work study experiences available to students in their fields of study, particularly for students in STEM (Science, Technology, Mathematics, and Engineering) fields.

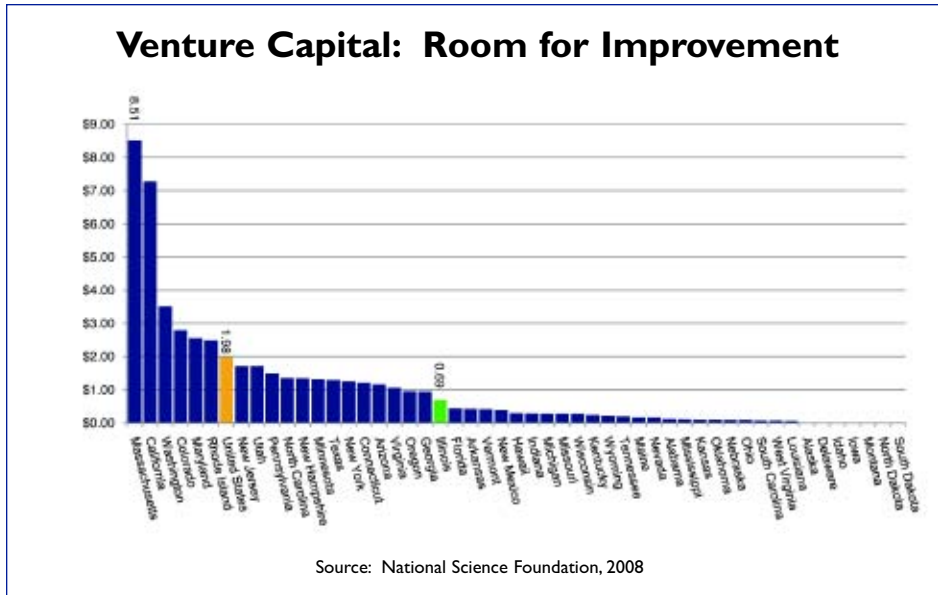


Figure 45. Venture capital disbursed per \$1,000 of gross domestic product by state, 2006. Illinois ranks below the national average in the amount of venture capital and far below the leading New Economy states. Massachusetts, California, and Washington have much higher rates of venture capital than the state of Illinois.

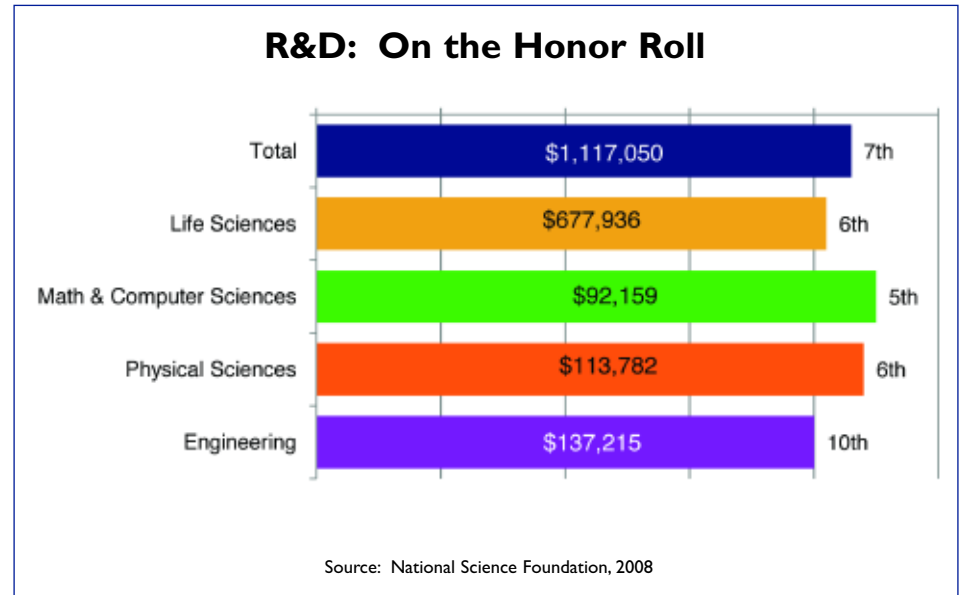


Figure 46. Illinois rank – federal academic research and development expenditures, 2006, in millions. Illinois ranks seventh in total federal research and development expenditures by universities. Illinois has similar high rankings in the subtotals of STEM (Science, Technology, Engineering, and Mathematics) fields.



STRATEGY: Develop cutting-edge educational programs across the P-20 spectrum that will prepare students to succeed in the global economy.

Action Steps:

- 8) Expand state learning standards to include innovation economy knowledge, such as National Educational Technology Standards and multidisciplinary skills.
- 9) Develop, expand, and fund master's degree science interdisciplinary programs focusing on communication and problem solving skills, entrepreneurship, and innovation.
- 10) Expand Illinois Mathematics and Science Academy's reach throughout the state in both teacher professional development and STEM education programs for students.
- 11) Expand career cluster initiatives in Illinois focusing on key areas such as healthcare, manufacturing, transportation and logistics, and other sectors critical to state and regional economic development.

STRATEGY: Remove barriers that impede the entrepreneurial spirit without jeopardizing public service, protection, and safety.

Action Steps:

- 12) Review and improve state policies to create an environment that encourages entrepreneurial activity among faculty, helps create startup businesses, leverages capital, provides business incubator services and support services, and attracts venture capital.

- 13) Discuss industry and labor expectations of the state approval process for new workforce training programs with the intent to streamline and expedite processes.
- 14) Provide assistance, including the extension of affordable broadband Internet service to all rural communities and incentives for regional collaboration for innovation and economic development.

RECOMMENDATION:

Performance Measures

Proportion of jobs considered to be “living wage” jobs.

Spin-off companies created per billion dollars of academic research.

Patents and commercial licensing agreements.

Commercialization of technology first developed at an Illinois institution of higher education.

Number of Cooperative Work Study Grant recipients employed by Illinois companies after graduation.

Benchmarked Against

Illinois trends over one-, five-, and ten-year periods.

Five best-performing U.S. states.