

On May 28, the House passed the America COMPETES Reauthorization Act, legislation that would strengthen U.S. scientific and economic leadership through investments in research and development, innovation, and education.

As Economic Nobel Prize winner Robert Solow and other economists have documented, half of the growth in our gross domestic product since World War II can be attributed to progress in science and technology. Yet for decades, we have underinvested in our nation's tools for advancing innovation and competitiveness. In 2005, the National Academies issued a call for action in the "Rising Above the Gathering Storm" report. In 2007, Congress responded by implementing many of the report's recommendations in the America COMPETES Act. This reauthorization would build on the progress we have made over the last three years.

Basic research is a powerful source of new and unexpected discoveries that can transform our economy. In helping to write this legislation, I worked to ensure that it would set us on a path to doubling funding at our nation's basic research agencies – the National Science Foundation, the National Institutes of Standards and Technology, and the Department of Energy's Office of Science.

These funds support fundamental research at Rutgers, Princeton and universities across the country; maintain our national laboratories; and provide vital training for the next generation of scientists and engineers. The dividends from our investments in research and development are the breakthroughs that yield new industries, drive job growth, and sustain our future economic and technological competitiveness.

Government-supported research has led to scores of success stories. A new report highlights 100 companies that grew out of federal investments in basic research. The list includes national names like Google, Cisco Systems, and Genentech, and companies with New Jersey connections. Universal Display Corp., based in Ewing, is a world leader in the development of innovative Organic Light Emitting Device technology for flat-panel displays, lasers and other light-generating devices. The work was supported in part by grants from the Department of Energy. Vorbeck Materials develops and manufactures high-performance nanomaterials; the research to develop the technologies was supported in part through National Science Foundation funding.

In addition to investing in basic research, the America COMPETES Act includes a number of new programs and initiatives to foster innovation. Regional Innovation Clusters would leverage collaboration between businesses and research institutions to transfer technologies from the laboratory to the commercial sector.

The bill would assist New Jersey manufacturers and other businesses trying to adopt new technologies that improve productivity. It would require NSF to support research in transformative advances in manufacturing. It would support the Manufacturing Extension Partnership program and require MEP Centers to inform regional community colleges of the skill sets needed by local manufacturers. A newly established Innovative Services Initiative would assist small- and medium-sized manufacturers in implementing energy and waste reduction technologies, including renewable energy systems. A loan guarantee program would allow manufacturers to access capital for the installation of innovative technologies and processes.

To help preserve our leadership in scientific and technical fields and strengthen our competitiveness in the twenty-first century economy, the bill would strengthen science, technology, engineering, and math education, benefitting students in New Jersey.

The America COMPETES Reauthorization Act would make long overdue investments in the foundations of our national innovation system. It would create jobs in both the short- and long-term, support manufacturers and businesses in commercializing new technologies, help us pursue a clean energy economy, improve STEM education, and strengthen our international competitiveness.

Despite the need for this legislation, twice House Republicans played politics with science and blocked its passage. I hope the Senate passes the bill so it can be enacted into law. It's exactly the kind of legislation we need as we emerge from the economic crisis and work to ensure sustained long-term economic growth.