Guest columnist

DiGennaro: Increase state funding for academic R&D

Joann DiGennaro

The State Council of Higher Education for Virginia (SCHEV) issued an impactful report in 2002, “Condition of Research at Virginia’s Colleges and Universities,” which warned of significant challenges for Virginia’s higher education system in garnering the resources needed to support world-class research.

The National Academies echoed a similar warning in its 2007 report, “Rising Above the Gathering Storm.” In a 2010 follow-up, “Rising Above the Gathering Storm, Revisited,” the Academies cautioned that unless the U.S. took action, the scientific pillars that supported our position of economic leadership would erode.

Alas, since the release of the 2002 and 2007 reports, the funding of academic research at Virginia’s institutions of higher education is little changed on a comparative basis.

The National Science Foundation (NSF) ranked Virginia 15th in the total amount of spending by institutions of higher education on academic research and development (R&D) for federal fiscal year 2012. This ranking was unfortunately the same as in FY1998.

Only two Virginia public or private universities were ranked among the top 100 institutions nationally based on total R&D expenditures in FY2012. Virginia Tech ranked 43rd, the University of Virginia ranked 60th — and Virginia Commonwealth University ranked 101st. The absence of a Virginia institution among the nation’s top 25, or even 40, research universities is striking — some would say embarrassing — for our proud commonwealth.
Darkening the outlook further, a 2013 report to the governor and General Assembly by the Joint Legislative Audit and Review Commission revealed that Virginia ranked 37th in academic research expenditures per capita. In FY2011, the national average for higher education research spending per capita was $207; in Virginia, it was $159 — over 23 percent less.

According to the Congressional Research Service’s 2012 report, “Federal Support for Academic Research,” “approximately 80 percent of leading industries have resulted from research conducted at colleges and universities.”

Universities cannot count on the federal government to continue previous levels of support for academic research. According to the National Center for Science and Engineering Statistics, federal funding for higher education research and development declined from $40.8 billion in FY2011 to $40.1 billion in FY2012.

Teresa A. Sullivan, president of the University of Virginia, was quoted in a 2011 article, “There was a time in our history when corporations and major industrial labs, such as Bell Labs, conducted basic research. But gradually over the years corporations have pulled back from basic research and focused on development. …This has left the ‘R’ to universities.”

As Virginia stagnates, states such as North Carolina are moving forward with additional appropriations in support of academic research. According to the NSF Science and Engineering Indicators, in 2010 North Carolina increased state funding for major public research universities in the state to $16,746 per enrolled student while Virginia decreased funding to $5,550 per enrolled student.

The State Council of Higher Education for Virginia with Virginia’s Center for Innovative Technology, Business Higher Education Council, Chamber of Commerce, Economic Development Partnership and the Center for Excellence in Education will address the challenges of substantially increasing opportunities for academic research at a summit in Richmond on June 9. It will focus on private and public partnerships, best practices for acquiring venture capital to drive an idea to market, advice from university researchers to young investigators and corporate thoughts about future disciplines to address the multidimensional challenges in health, cyber, manufacturing, energy, agriculture and the environment, all areas where the Commonwealth has significant strengths.

Our nation needs Virginia’s leadership. The summit is a call to lead a charge to action to increase funding for academic research. To ignore the direct and growing relationship of academic research to Virginia’s economic development is to do so at great peril.

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