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The Role of the PSM in STEM Workforce Development: View from the States

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Introduction

I wish to begin by thanking the Council of Graduate Schools and the Alfred P. Sloan Foundation for their support of PSM programs nationwide. To place my remarks in context, I will provide some background about SUNY, which, with 64 campuses and 465,000 students, is the largest comprehensive system of higher education in the nation. I wish to recognize Dr. David King, Director of the SUNY PSM, based at SUNY-Oswego, for his leadership. The SUNY PSM program is an excellent example of one SUNY campus leading a project on behalf of an entire system. The PSM operates under the auspices of the Provost's Office at SUNY System Administration.

SUNY's PSM program today consists of 16 campuses, with a goal of reaching 30 programs eventually. It is important to emphasize that the campuses participating in the PSM system-wide program represent several SUNY sectors, including doctoral granting, comprehensive and technical schools.

PSM in the New York Context

There are very difficult fiscal challenges facing New York. The state has projected budget deficits of \$3 billion for 2010, \$5 billion for 2011 and upwards of \$12-15 billion in 2012.

This daunting economic backdrop helped SUNY realize its expanded contributions to New York State through a system-wide strategic planning process that is now underway.

As new Chancellor, I spent my first 100 days at SUNY touring the system's 64 campuses, an experience that helped me to define the goals and themes of the strategic plan. The overarching goal of the plan is to leverage SUNY's considerable capacity as a driver of economic development and enhanced quality of life in New York's communities. In the strategic plan, PSM will likely be held up as one of SUNY's best practices in terms of workforce development, expanded educational opportunities and new strategic partnerships with business and industry – particularly in the STEM fields.

SUNY has been involved with STEM initiatives on several fronts, including a collaborative statewide dialogue funded by the Gates Foundation and in partnership with Rensselaer Polytechnic Institute, on increasing STEM-prepared teachers and STEM-ready graduates. SUNY also participated in the Governor's Task Force on Diversifying the New York State Economy through Industry-Higher Education Partnerships, which has issued a report with recommendations for improved collaboration between the State's industries, higher education institutions and the venture investment community to expand the innovation economy, with heavy reliance on the STEM fields.

Building on PSM's Success

I see several innovative strategies that could be incorporated into PSM programs, such as resident fellowships on campuses to facilitate tech transfer and a "STEM-Corps"—SWAT teams to help resuscitate struggling cities.

I am a strong advocate of cooperative education, which I believe should be scaled up in New York and should be a focus for PSM programs.

These are work-integrated, paid internships in business and industry that encourage future employment and retention of graduates in the state. I also suggest building a strong network of science career mentors to help PSM students develop strong role models and connections in the field.

How can PSM help SUNY and New York?

I will close with a list of reasons why PSM is a valuable asset for SUNY and New York:

- Reversing the brain drain to other states
- Enhancing the portfolio of program offerings, creating yet another reason to choose SUNY
- Helping to attract stimulus funds and private funding sources in this tight economy
- Creating a new venue for business-industry advisory boards, helping to leverage new partnerships
- Using PSM grads to mentor undergraduates and help attract more students to the STEM fields
- Providing another vehicle for promoting New York as a lucrative place to live and work
- Learning from others in this wonderful national network of PSM programs

I again wish to thank my co-panelists and the Council of Graduate Schools, and look forward to continuing to collaborate with the PSM network to expand educational and economic opportunities for our students and our communities.

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