

Welcome and Introduction
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Commission on Professionals in Science and Technology (CPST)

I want to welcome all of you to the first national meeting on master's education in the sciences and mathematics, with special emphasis on the Professional Science Master's (PSM) degree. Joining us today are not only enthusiastic supporters of the PSM programs, and you will be hearing from a number of them, but also new promoters of the PSM concept, those of you who are just curious about the PSM, and a number of us who are partnering in promoting the PSM idea and supporting a national movement to invigorate master's education in science and mathematics.

As you can see from the program agenda, we have assembled a distinguished group of presenters as we look at master's education in the sciences and mathematics: its value, importance and growth. For too long, this area of education has been neglected, only called the "forgotten degree." In many fields of science, individuals holding master's degrees have been relegated to "second-class" or "consolation prize" status by administrators and faculty in higher education, and subsequently by researchers as well. In 2001, only one out of five master's degrees awarded was in a science and engineering field and only 34,960 (7.5%) of the 466,645 master's degrees awarded were in the natural sciences. In contrast 12,496 doctorates (30.7%) out of 40,744 total Ph.D.s were awarded in the natural sciences in 2001.

This new attention to the master's degree, particularly in the sciences, may result from the changing marketplace. Our nation's graduate schools have been particularly effective in producing research and/or researchers, but are not necessarily well connected to the needs of the U.S. economy and U.S. employers. The difficult job market faced by many new PhDs and postdocs, the growth of part-time and adjunct faculty, the 8-9 year average time now needed to acquire a doctoral degree in the sciences followed by long postdoctoral periods, the suitability of present graduate training for non-academic jobs, and the 50% non-completion rate of doctoral degrees suggests a mismatch between career options and career choices in the sciences. Thus, I believe you will find the information presented at this two-day meeting of great interest and value.

I want to thank the Alfred P. Sloan Foundation for its support of this meeting, particularly Michael Teitelbaum and Jesse Ausubel, the other organizations and individuals with whom we have been partnering – Sheila Tobias, Chad Evans, Jennifer Bond, and Kimberly West from the Council on Competitiveness, Les Sims and Peter Syverson from the Council of Graduate Schools, Judith Glazer Raymo, and a number of the science professional organizations, including, the American Institute of Physics, the American Geological Institute, the Society for Industrial Microbiology and the Society of Industrial and Applied Mathematics, as well as the American Chemical Society. In addition, I want to thank my colleague, Nathan Bell, who has done a superb job of not only making all the logistical arrangements, but working side-by-side with me as we organized this meeting.

So without further adieu, let me introduce the chair for the entire meeting – Daryl Chubin. Daryl is Senior Vice President, Research, Policy & Programs, at the National Action Council for Minorities in Engineering (NACME), Inc. Prior to that he spent nearly 15 years in federal service, the last three as Senior Policy Officer for the National Science Board at the National Science Foundation (NSF). He is active in many different organizations, including the Commission, where he served three terms as President and now serves on its Board of Directors. You can read more about Daryl's accomplishments in his CV which is in your packet of materials.