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Abstract for an Invited Paper for the MAR14 Meeting of the American Physical Society

Preparing Graduate Students for Non-Academic Careers

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One of the primary topics discussed at the conference concerned career development, since most graduate students will not have the academic careers of their advisors. Goals included reviewing the primary functions of physicists in industry, evaluating how students are currently prepared for these careers, and identifying how to fill gaps in preparation. A number of non-academic physicists provided insight into meeting these goals. Most physics graduate programs in general do not purposely prepare students for a non-academic career. Strategies for overcoming this shortcoming include advising students about these careers and providing training on broadly valued professional skills such as written and verbal communication, time and project management, leadership, working in teams, innovation, product development, and proposal writing. Alumni and others from industry could provide guidance on careers and skills and should be invited to talk to students. Academic training could also better prepare students for non-academic careers by including engineering and cross disciplinary problem solving as well as incorporating software and toolsets common in industry.