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Effective Practices for Training and Inspiring High School Physics Teachers¹

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It is well-documented that there is a nationwide shortage of highly qualified high school physics teachers [1]. Not surprising, institutions of higher education report that the most common number of physics teacher graduates is zero with the majority of institutions graduating less than two physics teachers per year [2]. With these statistics in mind, it is critical that institutions take a careful look at how they recruit, train, and contribute to the retention of high school physics teachers. PhysTEC is a partnership between the APS and AAPT that is dedicated to improving and promoting the education of high school physics teachers. Primarily funded by the NSF and its partnering organizations, PhysTEC has identified key components that are common to successful physics teacher preparation programs [3]. While creating a successful training program in physics, it is also important that students have the opportunity for a “do-able” path to certification that does not add further financial debt. This talk will present an overview of “what works” in creating a path for physics majors to a high school physics teaching career, actions and activities that help train and inspire pre-service physics teachers, and frameworks that provide the support for in-service teachers. Obstacles to certification and the importance of a strong partnership with colleges of education will be discussed. Several examples of successful physics high school teacher preparation programs will be presented. [1] American Association for Employment in Education, Education Supply and Demand Report 2014-15, www.aee.org. [2] David E. Meltzer, Monica Plisch, and Stamatis Vokos, editors, *Transforming the Preparation of Physics Teachers: A Call to Action. A Report by the Task Force on Teacher Education in Physics (T-TEP)*(American Physical Society, College Park, MD, 2012). [3] <http://www.phystec.org/keycomponents>

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