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Industrial Physics Careers: A Large Company Perspective

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Statistical data from the American Institute of Physics and the National Science Foundation show that only about a third of physics graduates get permanent jobs in academia. A few work in government labs and hospitals. The majority of physics Ph.D.s, however, find employment in the private sector (industry). This trend has been increasing, i.e., recent Ph.D.s are even more likely to start careers in industry. Industrial physicists work in small, medium or large companies in a broad range of fields, including aerospace, semiconductors, automotive, energy, information technology, contract research, medical, chemical, optics, etc. They are also represented in fields outside of physics, such as finance. Even the “inventor” of the Powerball lottery game is a Ph.D. physicist. In my talk, I will describe pathways to success for an industrial physicist, from the perspective of employment in three different large corporations. Based on the NIST Baldrige criteria of Performance Excellence, I will discuss how to achieve and measure organizational success through focus on products and customers. Individual performance is linked to the goals of the organization. Performance has two components: Goals and behaviors. Both are key to success as an individual contributor or manager.

References:

<http://www.aip.org/statistics/trends/emptrends.html>

<http://www.aps.org/about/governance/committees/commemb/index.cfm>

<http://www.quality.nist.gov/>