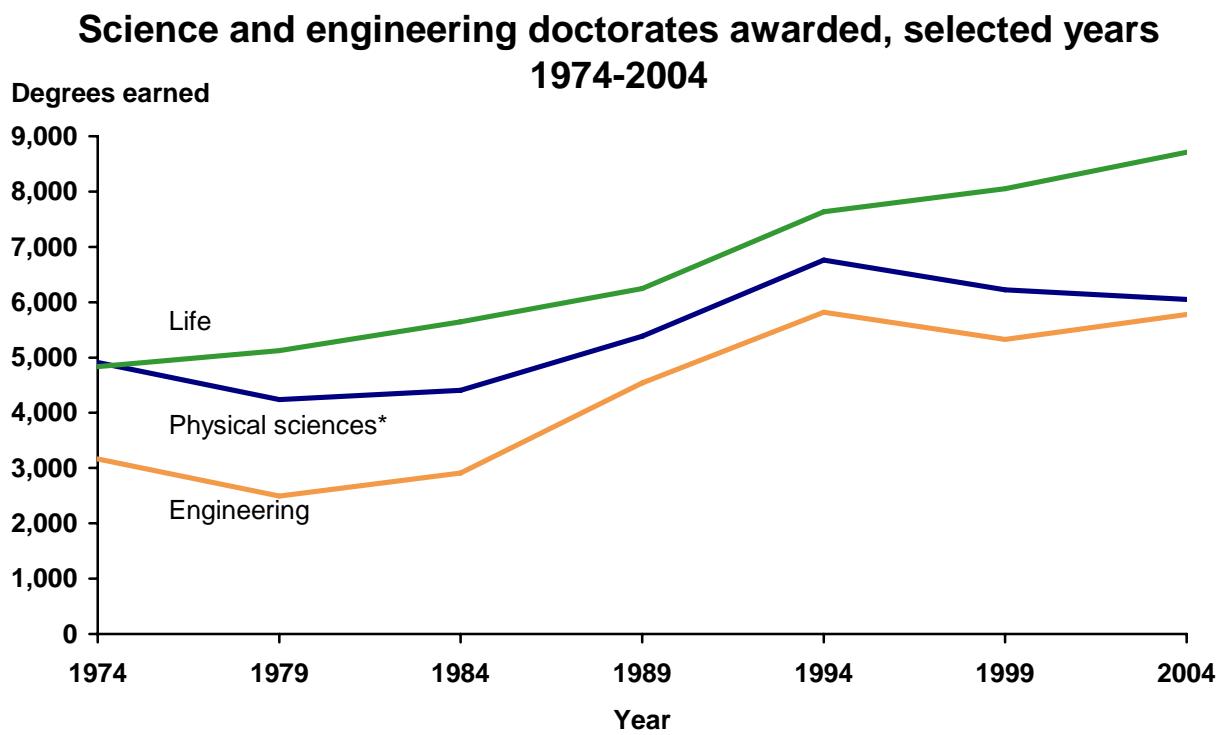


## IN SHORT

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### Trends in U.S. Science and Engineering Human Capital

Trends in the supply of scientific human capital in the U.S. may affect the ability of companies to perform research and development (R&D) in the U.S. If the supply of this key input into R&D production becomes scarcer, the cost of achieving a given level of research output increases (e.g., salaries of Ph.D. scientists will increase). Measures of the “stock” of scientific human capital are not readily available, but there are good data on the “flow.” The figure below, for instance, shows the number of doctorates awarded in Science and Engineering (S&E) fields in the U.S. from 1974-2004. These data are provided by the NSF, which compiles these numbers from the Survey of Earned Doctorates. There is little indication of any drop off in the total number of S&E doctorates in recent years. There has been, however, some noticeable shifts in the composition of doctorates across fields. Since around 1994, there has been a shift away from physical sciences (perhaps in part due to research funding cuts by the defense department) and toward life sciences. The number of engineering doctorates, like those in physical sciences, also fell after 1994, but it has recovered somewhat since 1999.



Source: WebCASPAR and author's calculations, based on a chart from the Survey of Earned Doctorates' Summary