Science PhD Job Market in 2012

Curious Cat Science and Engineering Blog

The too-big-to-fail-bank crisis [1] continues to produce huge economic pain throughout the economy. Science PhDs are not immune, though they are faring much better than others.

U.S. pushes for more scientists, but the jobs arenâ□□t there [2]
Since 2000, U.S. drug firms have slashed 300,000 jobs, according to an analysis by consulting firm Challenger, Gray & Christmas. In the latest closure, Roche last month announced it is shuttering its storied Nutley, N.J., campus â□□ where Valium was invented â□□ and shedding another 1,000 research jobs.
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Largely because of drug industry cuts, the unemployment rate among chemists now stands at its highest mark in 40 years, at 4.6 percent, according to the American Chemical Society, which has 164,000 members. For young chemists, the picture is much worse. Just 38 percent of new PhD chemists were employed in 2011, according to a recent ACS survey.
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Two groups seem to be doing better than other scientists: physicists and physicians. The unemployment rate among those two groups hovers around 1 to 2 percent, according to surveys from NSF and other groups. Physicists end up working in many technical fields â□□ and some go to Wall Street â□□ while the demand for doctors continues to climb as the U.S. population grows and ages.
But for the much larger pool of biologists and chemists, â□□Itâ□□s a particularly difficult time right now,â□□ Stephan said.
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From 1998 to 2003, the budget of the National Institutes of Health doubled to $30 billion per year. That boost â□□ much of which flows to universities â□□ drew in new, young scientists. The number of new PhDs in the medical and life sciences boomed, nearly doubling from 2003 to 2007, according to the NSF.

The current overall USA unemployment rate is 8.2%.

The current economy doesn’t provide for nearly guaranteed success. The 1960’s, in the USA, might have come close; but that was a very rare situation where the richest country ever was at the prime of economic might [3] (and even added on top of that science was seen as key to promote continued economic success). Today, like everyone else (except trust fund babies), scientists and engineers have to make their way in the difficult economy: and that should be expected to be the case in the coming decades.

Right now, physicians continue to do very well but the huge problems in the USA health system (we pay double what other rich countries do for not better outcomes [4]) make that a far from a certain career. They likely will continue to do very well,

financially, just not as well as they have been used to.

Science and engineering education prepare people well for economic success but it is not sufficient to guarantee the easy life. Just like everyone else, the ability to adapt to current market conditions is important in the current economic climate – and will likely continue to be hugely important going forward.

The reason to get a undergraduate or graduate science or engineering education is because you are interested in science and engineering. The economic prospects are likely to continue to be above average (compared to other education choices) but those choosing this path should do so because they are interested. It makes sense to me to factor in how your economic prospects will be influenced by your choices but no matter what choices are made a career is going to take hard work and likely many frustrations and obstacles. But hopefully a career will provide much more joy than hardship.

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