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October 20, 2011

High Demand for Science Graduates Enables Them to Pick Their Jobs, Report Says

By Paul Basken

A couple of years ago, a pair of researchers at Georgetown University and Rutgers University concluded that, contrary to widespread perception, the United States [produces plenty of scientists and engineers](#).

The problem, wrote Harold Salzman of Rutgers and B. Lindsay Lowell of Georgetown, is that fewer than half of all college graduates in science and engineering actually take jobs in those fields. So instead of pressing colleges to produce more science graduates, [they wrote](#), the country needed only to persuade new graduates to take the right jobs.

A [study](#) released on Wednesday by another Georgetown research team suggests, however, that lot of persuasion may be necessary.

Among its findings, the study, from the Georgetown University Center on Education and the Workforce, shows that science and engineering graduates enjoy high demand in a variety of fields, with a bachelor's degree in a science major commanding a greater salary than a master's degree in a nonscience major.

And, the new report says, English-speaking science graduates are much less likely than foreign-born science graduates to take a job in a traditional science career, which American graduates often view as too socially isolating.

"It sort of fits the stereotype, frankly," said the report's lead author, Anthony P. Carnevale, a research professor at Georgetown who serves as director of the Center on Education and the Workforce.

In recent months, the center has also issued reports that analyzed [students' future earnings based on their undergraduate majors](#), and that tied [lifetime earnings as much to students' choice of occupation as to their degrees](#).

The 2009 study by Mr. Salzman, a professor of public policy on Rutgers's New Brunswick campus, and Mr. Lowell, director of policy studies at Georgetown's Institute for the Study of International

Migration, used 30 years of federal job data to show that American colleges produce far more talented graduates in the sciences than is required by the industry for which they've been specifically trained. But there is a labor shortfall, the professors said, because so many science graduates take jobs in areas such as sales, marketing, and health care.

The training and expertise of science graduates give them that flexibility, Mr. Carnevale found in his study. Sixty-five percent of students earning bachelor's degrees in science or engineering fields earn more than master's-degree holders in nonscience fields do, the report says. And 47 percent of bachelor's-degree holders in science fields earn more than do those holding doctorates in other fields.

A liberal-arts education is often regarded as giving a graduate a wide degree of flexibility in a fast-changing job market. The wage data may now be showing that a narrower education in a scientific field offers similar benefits, Mr. Carnevale said. "The technical foundation," he said, "is worth even more than we thought."


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 **Mstrx** 1 month ago

"The Greeks had the brains, but the Romans had the drains."

Basically: Scientists did not put a man on the moon - engineers did. And they continue to get little respect in academia.

I hear often about committees discussing the need to train more scientists and engineers - and those committees (often chaired by scientists), bankroll science funding, not engineering.

Look at the CONTENT of this article: "scientists and engineers getting jobs" - yeah, right... Be honest, its mostly the engineers doing well.

But look at the TITLE of this article: "High Demand for Science Graduates."

And so it goes....

19 people liked this. [Like](#)

 **jeff_winger** 1 month ago [in reply to Mstrx](#)

Yes, Mstrx, but it is the poets who thought up making the trip in the first place, and they get even less

credit.

5 people liked this. [Like](#)



bombing8 1 month ago [in reply to Mstrx](#)

So, so sad....engineers have to build the engines and drive the bus, and scientists get to play with all the fun things. This reminds me of a Rodney Dangerfield routine...

[Like](#)



Mstrx 1 month ago [in reply to bombing8](#)

True, but did you know the U.Texas may be closing the physics departments? Low enrollment. No matter: the engineers can offer physics. So, laugh...

2 people liked this. [Like](#)



mbelvadi 1 month ago

"And, the new report says, English-speaking science graduates are much less likely than foreign-born science graduates to take a job in a traditional science career..." - this is a bizarre dichotomy, as if foreign born students aren't English speaking? Ever heard of India? Whose second national language is English? I think one or two of them study science/engineering in the US each year (MIT is their "safe school" compared with IIT), and I am pretty sure that those who do are fluent in English.

6 people liked this. [Like](#)



tomian 1 month ago [in reply to mbelvadi](#)

I took a look at the latest Times Higher Education world university rankings, which were recently released. MIT is 7th. IIT is 302nd. While I can understand your loyalty, I have to assume that the preference of Indian students for IIT over MIT has more to do with tuition and location than with quality of education. I think you'd be hard pressed to find an American student who would choose IIT over MIT.

[Like](#)



mbelvadi 1 month ago [in reply to tomian](#)

IIT has an undergrad admission acceptance rate of 2% and is only open to Indians (the exam to get in is only available to Indians) so your comment about Americans preferring it is meaningless - they don't have the choice. MIT has an acceptance rate of 12% - when comparing one American univ to another, most people consider that an important measure of selectivity so why discount it here? The Times ranking is probably related to graduate programs - IIT is stronger than MIT in undergrad, but MIT clearly has much the better equipment/other resources to offer a better graduate education (many would argue the Times rankings is biased against non Anglo-European institutions, as well). The article was about undergrad education. The educated elite of India is replete with stories of people who were rejected from IIT and went to MIT instead. Funny comment about "loyalty" - you're making some very wrong assumptions.

2 people liked this. [Like](#)



azadpoor 1 month ago [in reply to mbelvadi](#)

I would probably never prefer a prospective graduate student graduated from IIT to the ones graduated from MIT (all other things including grades being equal). As for the

acceptance rate, it is completely irrelevant. Your comparison would have only made sense if MIT and IIT were similar universities in the same country. Imagine moving MIT to India (without drop in the caliber), charging the same tuition fee as IIT (is there any tuition fee?) and THEN comparing the acceptance rate. Get a life.

Like



cwinton 1 month ago

Hmmm ... so a huge percentage of students with STEM degrees are intellectually flexible enough to develop interests and careers in something other than the area of their academic discipline. Perhaps the liberal arts should take a closer look at why these disciplines seem to be coming closer to the ideal of what we hope university education prepares one for. This report seems wrong-headed to me. Why on earth should we try to encourage more of these students to "take the right jobs" when their actions seem to indicate so many are using their university educations to expand, rather than contract, their horizons.

32 people liked this. Like



justanotherucprof 1 month ago

The last paragraph of the article is very confused, trying to make a distinction between "liberal-arts education" and "a narrower education in a scientific field." The sciences are at the very core of the liberal arts, and always have been. Does the author mean to distinguish between STEM and the humanities? There isn't any obvious difference in breadth between a physics major and a philosophy major. And trying to imagine some sort of dichotomy between the STEM fields and "liberal arts" fields isn't very useful, since most non-STEM students aren't in the arts or humanities, they are in business and other professional fields. The report itself, or at least its executive summary, is almost offensively bad in its ed-speak-laden misunderstanding of the sciences, and its repeated setting up of false dichotomies between attributes the authors believe are "characteristic" of STEM fields and those in "competition" with STEM. For example, the idea that "the core work interests associated with STEM occupations are Realistic and Investigative interests" that compete for talent with non-STEM interests such as "Social interests (focused on the well-being of others)" (p4 of the exec summary) flies in the face of the huge fraction of science students, faculty, and practitioners who are motivated in their work by the ability to address in a meaningful way our biggest social problems, including public and environmental health. The Lumina Foundation should feel ashamed to have its name prominently displayed on this report.

7 people liked this. Like



ruskaya 1 month ago

There are multiple factors to consider when looking at job opportunities, and the pay is just one of them. The article states "a job in a traditional science career, which American graduates often view as too socially isolating," which is a perfectly valid reason to consider another path if you know enough about your own needs in a career. How many people are in careers they don't enjoy because their mortgage depends on the paycheck? Why should we push young people into careers they don't want simply because it pays well? It annoys me that the only aspect of career choice that gets measured is salary, as if that equated to satisfaction.

5 people liked this. Like



microbio 1 month ago *in reply to ruskaya*

I'm not sure you got the point of the article. The "right" jobs as defined here are jobs in the STEM fields not because of salary but because society needs people to fill these positions. The argument is that 1) we are producing more scientists and engineers than there are science and engineering jobs, yet 2) those jobs are going unfilled due to a lack of applicants because students with STEM degrees are going into other fields, possibly in part because of salary, but definitely for other reasons including perceived social isolation. So the goal isn't to "push young people into careers they don't want simply because it pays well", but rather to determine ways to make those jobs more attractive by addressing some of the perception issues.

Also, I find it interesting that folks in the humanities (including those who post here and in the fora regularly) often imply or directly state that a humanities-based education is better than a STEM education because the focus is on critical thinking rather than technical skills and that critical thinking

will be more useful in the long run because technical skills become obsolete. I would argue that this study indicates that either critical thinking is not the exclusive domain of the humanities and the additional technical skills provided by a STEM education leads to a long-term employment benefit (a view which I favor) or that learning how to learn technical skills (not necessarily the skills themselves) provide that same benefit.

13 people liked this. [Like](#)



bscmath78 1 month ago

The article says "...to take a job in a traditional science career, which American graduates often view as too socially isolating."

What does "socially isolating" mean in this context? Does this mean it limits binge drinking? Does it mean you are called a geek or nerd? Does it mean they think success means working at Caltech but being like the characters in "The Big Bang Theory" TV show? Or they don't think they are as smart as Sheldon? Or they think people will think they are like Sheldon? Or they think working long hours at a start-up is too much work?

<http://en.wikipedia.org/wiki/F...>

Searching the report text for "socially isolating" and "social isolation" I didn't get a hit.
<http://www9.georgetown.edu/gra...>

What I do find in the report on page 21 is:

"STEM lost a substantial number of jobs in 2009 and 2010. It will regain those—and more—once the recovery is fully under way. We project steady expansion for the sector through 2018, when the number of STEM jobs will have grown from 6.8 million to nearly 8 million—from 4.4 percent to 4.9 percent of all jobs in the U.S. economy."

Now a growth of just over 10% in % of jobs (4.4 to 4.9) between now and 2018 assuming their recovery assumption, and no subsequent economic problems, seems quite underwhelming. They think in 2018 4.9% of jobs will be STEM jobs, this doesn't seem at all high while at the same time seeming overly optimistic. Note: my quoting from the report should not be regarded as any kind of agreement or endorsement of any part of the report, in fact I find it suspicious and highly optimistic, but I am too lazy to read it in other than a highly superficial fashion.

The report also says, "Coupled with the rapid creation of new STEM jobs will be significant job openings due to baby-boomer retirements. . . . due to incumbent workers retiring or moving to other sectors of the economy."

I have been hearing this Boomer retirement story for a long time now for STEM and other fields and it doesn't seem to really ever happen. Remember the 1989 Bowen and Sosa study that predicted a Humanities Ph.D. shortage? Remember Lynne V. Cheney's New York Times Op-Ed rebuttal "The Phantom Ph.D. Gap"? Though the Bowen and Sosa rebuttal letter <http://www.nytimes.com/1989/10...> says:

"The severe shortages of faculty members that we project for 1997-2002 are not caused primarily by 'faculty members retiring, dying and otherwise leaving the academy,' but rather to known population trends that will affect enrollment in the late 1990's."

And I find "moving to other sectors" suspicious. Does this really mean that within 5-10 years of being hired you are downsized or decided life is better in the non-STEM world? Given what happened in 2009-2010 students may regard their future prospects with some doubt.

This report contains various stats that appear to show that at university and after, a substantial number decide the STEM life is not worth it.

Page 46 has a table showing of the "Top math quartile" students: 23% start with a STEM major, 15% continue and graduate in a STEM major and 8% continue and start to work in a STEM job.

The toy was right, "Math class is tough!" and it appears it continues to be true even for the top quartile. Apparently the toy did not say, "Math class is hard!"

Maybe the moral of this study is: "If you are smart enough to be a STEM major, you are smart enough to work outside of STEM".

11 people liked this. [Like](#)




bscmath78 1 month ago in reply to bscmath78

People might consider the comments responding to a CHE article referring to an earlier Georgetown study. They start here, with manoflamancha's humorous story about success in engineering:
<http://chronicle.com/article/A...>

Though I caution that when he wrote, "driven by Cristy Brinkly", I think manoflamancha really meant Christie Brinkley:
<http://en.wikipedia.org/wiki/F...>


but I am purely speculating. Maybe this is what the article meant by "socially isolating". ;-) Or maybe like Don Quixote, the romantic, manoflamancha sees what the rest of us fail to see. ;-) I'm just teasing. I am pretty sure most engineers would know the difference.

1 person liked this.

 **Theodore Van Rooy** 1 month ago in reply to bscmath78

Socially Isolated probably means you write and respond to lengthy comments on articles relating to your STEM career...

1 person liked this.

 **bscmath78** 1 month ago in reply to Theodore Van Rooy

Theodore Van Rooy, yes, in some circles it does make you unpopular to try to help others. Some people don't like to learn about mistakes. Especially true if you try to use evidence and logic to support a position. This is the kind of thing that makes some STEM types unpopular with some. Some think it is terrible to even offer the opportunity to read such material. But that still leaves the question of what the author and the students think "socially isolating" really means.

"But he hasn't got anything on," a little child said."
 - "The Emperor's New Clothes"
<http://www.andersen.sdu.dk/vae...>

Since it is a fairy tale, the adults quickly accept the child's truth and the child is NOT punished.


1 person liked this.

 **11301218** 1 month ago

A couple of points worth noting -- (1) science, math, and engineering students who actually make it are usually self-selected cream of the crop students. If a student has to do well in chemistry, physics, and calculus, chances are they have more than a few neurons firing. Smart people can more easily adapt than people of limited talents. Perhaps, they really learned about history, philosophy, economics, etc. while preparing for a career in a science-related discipline. (2) If there were so many jobs in science, math, and engineering, why has there been so much unemployment among chemists, electrical engineers, and several other fields? The American Chemical Society reports the worst unemployment among chemists in decades. (Newsweek last spring or summer identified chemistry as an area to avoid in college. That has done wonders for our enrollments in chemistry.) IEEE had reported in recent years serious employment problems for electrical and electronics engineers.

Perhaps the reason why science graduates end up in other fields is because of the lack of jobs in discipline and their frustration in trying to build a career for which they prepared. If they are Americans, they can more easily investigate employment opportunities in other areas than could a foreigner on a student visa or other form of restrictive work permit.

7 people liked this.

 **bscmath78** 1 month ago in reply to 11301218

And people shouldn't forget UNDER-employment. Over the last 40 years many STEM students ended

up in Information/Technology or Computer Software/Hardware type jobs, instead of their own specialty. So they still show up as STEM majors and STEM employed even though they don't use much if anything of their specialty besides their intellectual capabilities and the computer expertise developed for their own specialty. Sometimes they went that route because the pay, opportunities and prospects were brighter than their own specialty.

Of course, with each bust there are waves of down-sizings on top of the ongoing toll caused by ongoing "creative destruction" (think of the decline of Kodak). Plus there is the increasing pattern of off-shoring, out-sourcing, H-1B visas and L-1 visas that threaten the prospects of I/T and hardware/software type jobs.

4 people liked this. [Like](#)



bscmath78 1 month ago [in reply to 11301218](#)

Another element is that students see what has happened to their STEM parents, STEM siblings, STEM relatives and STEM family friends and wonder about their own prospects being dimmer still. STEM parents, STEM siblings, STEM relatives and STEM family friends also tell students what it has been like and how difficult it has become in some fields, even in cases where jobs remain the pleasure of the subject has been sharply reduced.

1 person liked this. [Like](#)



bscmath78 1 month ago [in reply to 11301218](#)

It's possible that the article's reference to "socially isolating" actually refers to the fact that being poor is socially isolating -- no going to the Met and maybe seeing Christie Brinkley.

Maybe STEM students don't want to be poor and want to be able to eventually live in a nice house, afford children and afford to send them to a good university? Or maybe they want some social status or some respect or some dignity? Or maybe they don't want to be shackled with debt for most of their lives?

4 people liked this. [Like](#)



ucprof 1 month ago [in reply to bscmath78](#)

I think a number of STEM jobs are socially isolating. Especially if you are working by yourself in a lab or on a computer. This article definitely rings true with what I have seen in my quantitative science field. But some STEM jobs provide a team environment with a lot of social interaction. In fact some of my PhD students have told me they do not want an academic job because they want to work in a team rather than by themselves. And they may not be thinking far enough ahead to envision themselves running a research group.

[Like](#)



bscmath78 1 month ago [in reply to ucprof](#)

ucprof, your second sentence provides some explanation for what you think is "socially isolating". One of my earlier points was that the article didn't say what the author thinks is "socially isolating" let alone explain what students think is "socially isolating". Since university students are mainly exposed to adjuncts and not a top researcher, at a top UC campus with lots of research grants, such as yourself, they would likely have a very different idea of what is "socially isolating".

Given what you have written in a previous post about your campus not hiring "ladder faculty" isn't the likelihood kind of low for even your Ph.D. students running a research group? There have been claims that only 20-25% of postdocs ever become Principal Investigators. Aren't the odds even higher with California budget cuts? Postdoc limbo can last a long time. Alan Guth, of inflationary universe fame, was a postdoc from 1971-80, even with an MIT Ph.D. And Einstein was a Swiss patent clerk from 1902-09 before he got hired to be a professor. This was even with his famous 1905 papers. But Einstein after patent office work would apparently head off to the pub to discuss physics with his friends, which doesn't sound "socially isolating".

2 people liked this. [Like](#)**bscmath78** 1 month ago *in reply to ucprof*

I think ucprof's post, from about 5 months ago, supports some of my points about the high-risk nature of STEM for the bottom 90% of grad students coming through the process now.

<http://chronicle.com/article/U...>

2 people liked this. [Like](#)**5768** 1 month ago

So, narrower education in a scientific field is about to offer a "wide degree of flexibility in a fast-changing job market."

Is this synonymous to saying that enlargement of the proverbial holding tank of short-term, low-paid postdoctoral labor is predicted to occur and permanent jobs for those holding doctoral degrees will be increasingly a thing of the past? That a similar scenario may be fully expected to commute downward to those holding STEM bachelor's degrees?

It's one thing to pick one's own job and another entirely to have to pick it over and over again.

[Like](#)**bscmath78** 1 month ago

And STEM graduates can even write pseudo-literary items like this one:
<http://chronicle.com/blogs/nex...>

2 people liked this. [Like](#)**mathmaven** 1 month ago

I graduated with a science degree in the early 1990s. Good GPA, reputable university. On graduation day, I knew exactly one person in my major who had a job to go to in a scientific field. For lack of any gainful employment in my field, I went to grad school. Now I work with undergraduates in science and math. More than half of them are women; almost all of them are minorities. All of them have had internships and/or hands-on research experience. All of them are high-achievers. You'd think they'd be highly desirable recruits. Every year for the past several years, I've seen them graduate and have a very hard time in the job market. A few get jobs. A few go on to grad school and med school. A lot of them stick around working part-time jobs on campus because they haven't found any off-campus work. I don't know where the notion that people with science degrees can write their own ticket, but it's certainly not happening here. Engineering degrees maybe, but bachelor's degrees in science and math, not so much.

10 people liked this. [Like](#)**raymond_j_ritchie** 1 month ago *in reply to mathmaven*

Dear Mathmaven, I agree with you. This article does not tally at all with my career experience either. I'm Australian. I have a PhD in Plant Biology from Sydney, 12 years post doctoral experience, including 5 years in the USA and I have published 63 peer-reviewed publications, 21 single-authored, 44 first authored. I have never been able to even get interviewed for a tenure-track position. I only ever had contract (adjunct) jobs. I learnt the fine art of publishing papers in international journals on practically no money. I have applied for about 250-300 positions and been interviewed 5 times. Gave up trying to get a job in Australia or Nth America. I now have a real job in SE-Asia (no interview). The drawback is they have a strict 60-year retirement age and so I will only have the job for a few years. The problem which the articles is not explicit in stating but most readers would conclude from it is that the career structure of STEM careers is lousy. It is very hard to get a real job (a job a bank manager

understands as a real job) in the sciences. That means that if you want to have a life with a car, a house, a family etc science is a very bad career choice. If your spouse cannot support you then you are stuffed. Adjunct employment is destroying the science base of most western countries. The fact that most science graduates get jobs in non-science related fields has one good aspect. It means that people with some understanding of science are spread through the community and that is a good thing but the reason for it is not.

7 people liked this. [Like](#)



bscmath78 1 month ago

As ucprof posted, about 5 months ago, about the University of California system:

". . . I am a money maker for the UC I bring in around 10X my annual salary in federal research grants. In the sciences and engineering if you cut the top people and they leave you lose this funding. The federal agencies do not want to fund mediocre researchers they want to fund the very top people . . .

The UC does a very careful job of separating teaching sources from research monies; . . .

In my department we have seen a shifting of teaching resources from ladder faculty to temporary faculty. Now about 40% of our courses are staffed by temporary faculty at a cost that is a fraction of what it would cost to hire a ladder faculty. . .

We saw a huge increase in the number of majors in my dept in the last decade but the response from the administration was not to increase ladder faculty but to hire more temporary faculty to fill in the courses. . .

I am in a top ranked department . . . This is my view from inside the system and from a STEM discipline."

So we have a situation where at the top of STEM hierarchy they see "a huge increase in the number of majors", but no new "ladder faculty" but instead more poorly paid temporary faculty. At least some STEM students don't want to be lambs to the slaughter.

You can read ucprof's original post and its context here:
<http://chronicle.com/article/U...>

3 people liked this. [Like](#)



ellenhunt 1 month ago

And on Oct 12, 2011, President Obama signed into law "Patent Reform". This law changes the centuries of "first to invent, and only true inventor" to "first to file".

Simply put, this is the final nail in the coffin of STEM financial rewards. First to file is a license to steal. It is an outrage. And people wonder why intelligent students don't want to go into STEM fields? Now, there is nothing, absolutely no final backstop to force rewards to go those who figure things out or invent technology. That was the reason why "letters patent" were first invented by the crown. Patents were created to force businessmen to pay the people who came up with things.

Science, engineering and technology are what creates real value where no value existed. And value is what our money is used to measure.

America has become a nation "of the thieves, by the thieves and for the thieves". Theft is now protected with the force of the law.

Our nation is breaking.

3 people liked this. [Like](#)



bscmath78 1 month ago

The NIH is studying research workforce needs. An article about the formation of the panel makes the following interesting comment, "The study is a response to concerns such as a flattening NIH budget, the maturity (42 years) of first-time NIH investigators, and complaints from new Ph.D.s who can't find academic jobs."

What a choice of phrasing, "the maturity (42 years) of first-time NIH investigators"! Which implies the lucky ones finally get their own NIH grant at 42 (presumably average age)!

<http://news.sciencemag.org/sci...>

Another interesting bit, "a 1998 National Academies' study that recommended universities freeze enrollment to reduce a glut of Ph.D.s in the life sciences."

1 person liked this. [Like](#)



bscmath78 1 month ago

This situation is poor around the world as is seen in this article:

<http://www.timeshighereducatio...>

"The NSF estimates that only 26 per cent of recent PhD recipients in the US will secure a tenure-track position."

A British study seems closer to being true," . . . according to the Royal Society's 2010 report . . .30 per cent of science PhD graduates go on to postdoctoral positions, but only about 12 per cent of those attain permanent research jobs."

"Everyone agrees that postdoctoral researchers have to be made more aware of the low statistical probability of their being able to remain in academic science long term."

1 person liked this. [Like](#)



bscmath78 1 month ago *in reply to bscmath78*

Oddly the same publication, in a different article, gives a different and lower NSF estimate while having the same Royal Society numbers with different wording:

<http://www.timeshighereducatio...>

"In the US, just 20 per cent of recent PhD recipients in science will secure tenure-track positions, according to estimates by the National Science Foundation; in the UK, only 30 per cent will go on to postdoctoral posts and just 12 per cent will get permanent jobs, according to the Royal Society."

1 person liked this. [Like](#)



bscmath78 1 month ago *in reply to bscmath78*

The actual 2010 Royal Society report "The Scientific Century: securing our future prosperity" is at:

<http://royalsociety.org/upload...>

Figure 1.6 on page 14 shows 0.45% of science Ph.D.s become professors (FYI, in the UK there is no tenure for university professors). It isn't clear how the chart relates to the number used in the two Times Higher Education articles referenced earlier, what with the various curving arrows.

It looks like the 30% arrow is postdocs, 3.5% is "Permanent Research Staff" (in academia) which is close to 12% of 30% (3.6% of Ph.D.s) and then 0.45% become professors. Note other arrows going to non-academic research. And just a reminder that "permanent" just means no guaranteed end date like a postdoc. Also the chart is based on 2005, 2008 and 2009 documents which, of course, are based on earlier, happier times.

So at least in the UK, it seems that becoming a professor is worse than a 200 to 1 long shot for a science Ph.D., keeping in mind that 53% of science Ph.D.s go for non-science work right off the bat, maybe because they realize they should finally cut their losses.

1 person liked this. [Like](#)



bscmath78 1 month ago *in reply to bscmath78*

On the same page 14, the Royal Society states in the context of complaining about failures to recruit sufficient science and math school teachers:

"The Royal Society's own research suggests that without excellent teachers there is little hope of inspiring children to stick with science"

I would think given the 200 to 1 odds against a science Ph.D. getting to become a professor that the Royal Society would call for sharp reductions, at all educational levels, in the leading of lambs to the slaughter, but strangely, there is no such call.

1 person liked this. [Like](#)



bscmath78 1 month ago

For backup information on the poor situation for NIH funded researchers, search for "Average Age of NIH R01 Equivalent Principal Investigators" to find a NIH Office of Extramural Research presentation. Slide 5 has a chart illustrating the increase in age for first time R01 Equivalent Principal Investigators. For the Ph.D. case it increased from 37 in 1982 to over 42 in 2007.

1 person liked this. [Like](#)

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