



What Career Should I Consider?

Posted by [Gail the Actuary](#) on October 10, 2008 - 10:15am

Topic: [Miscellaneous](#)

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This is a slightly abridged version of an actual letter from a reader and my answer, regarding a change in career in the light of peak oil. What would you have said? This reader was not from the US. How would advice differ for different parts of the world?

Dear Gail:

I read some of your posts on The Oil Drum, and I wanted to ask you a question. Taking into consideration peak oil, what careers are likely to be better places in the years ahead?

(continued under the fold)

For example, given the current financial meltdown, it seems the Financial Sector is looking like a terrible place to be, never mind what might happen if oil production starts to decline. I just [read](#) that Kenneth Rogoff, Economics Professor at Harvard and former Chief Economist at the International Monetary Fund, has joined the chorus:

The worst is yet to come in the U.S. The financial sector needs to shrink; I don't think simply having a couple of medium-sized banks and a couple of small banks going under is going to do the job.

I am still in my 20s, currently working as a math teacher, but am planning on going back to school. I have considered engineering, but that can be very energy-dependent. Until recently, I was aiming to position myself for a career in finance - I don't think that will be a good long term move anymore. But I'm a bit in the dark about what is a good move. I'd imagine health care and education would be "safer" ...not that I necessarily want to be in those sectors, to be honest.

Anyway, I was just hoping you could give me your opinion as to what sectors of the economy you reckon are going to be better positioned once world oil production starts

declining?

Sincerely,

A Reader

Hi Reader,

You ask a good question. I would agree that the financial sector is a terrible career choice. The question is what is better.

The big question is how far society drops, and how quickly.

I think electricity is one of the critical things needed to keep society going. The electrical utility area has not hired in a very long time. I have read that even now, the US electrical industry is trying to outsource as much as they can to India--wonderful! Nevertheless, I think that in the years ahead, there have to be jobs in electrical related fields, if society keeps going at all in the way we are now headed.

My view is that long term, the future of electricity is going to be more local. We are going to have an increasingly difficult time keeping up infrastructure for transporting electricity long distances. Also, many of the newer sources of electricity are smaller and more local. I was reading a book recently called "Perfect Power" by Robert Galvin and Kurt Yeager. They argue that there are great improvements in efficiency that could be made at the local level (for example, universities, big manufacturers, and big office buildings). If some electricity could be generated locally and effective storage devices were available, this local generation could help take the stress off the grid. There would be less need to build large new power plants and add transmission lines. It seems like it will be only a matter of time until local groups are permitted to make their own electricity and add the excess to the grid. Allowing local electricity might permit more co-generation (combined heat and power) as well.

I think the other area with a real need is something related to agriculture / biology. What plants will grow without too much support in each area of the country? What approaches can be used to keep pests away that require relatively little technology? What kind of crop rotation would work well? If water is in short supply in a particular area, what techniques can be made to make it go farther (more drought resistant crops, low tech devices for irrigation. The advantage of an agriculture-related field is that you might learn some things helpful for your own family's needs.

I would stay away from health care, at least as taught in universities. I think there are way too many people in healthcare right now. We are not going to be able to afford the huge amount we are spending on it today. If everything becomes more local, healthcare will have a hard time adapting. There are a lot of techniques my father learned when he went to medical school in the early 1940s that might be helpful in an energy-constrained world (for example, diagnostic techniques that don't depend on laboratory tests, and setting bones by "feel"), but these aren't taught any more. After medical school, he learned hypnosis, and used it when stitching up wounds and in helping women with child birth. Health care now is all pill dispensing and surgery, and this won't work long-term.

I think education will be scaled back a lot too. A lot of the stuff being taught today really won't be very relevant in the future. If there is growth, it will be in the practical subjects in high school.

Hope these thoughts help.

Sincerely,

Gail



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