Employing Immigrants: It's Not Them vs US

Cynthia A. Walsh, in her letter in the December issue (page 102), opposes the provisions in the Immigration Act of 1990 that allow businesses to recruit alien workers to make up for shortages in the sciences. This is an issue about which I, and I think many physicists, have very mixed feelings. On the one hand, my own experience looking for a job in late 1989 suggests that there is indeed a shortage of jobs, at least for physicists in my field and in my cohort (I received a PhD in plasma physics in 1977), rather than a shortage of scientists to fill jobs. Under these circumstances it does not make sense to preferentially admit immigrants who are physicists. On the other hand, I have many physicist friends and colleagues who are immigrants, several of whom fled persecution in their native countries. I have worried with them over problems they encountered dealing with the bureaucracy of the Immigration and Naturalization Service, and I have celebrated with them when they became permanent residents and citizens. In their native countries, their prospects for employment as physicists, or even for survival, were in many cases considerably worse than the prospects of American-born physicists for finding jobs in the present economy. I could not comfortably adopt the America-first, know-nothing tone implicit in Walsh's letter.

One way to improve employment prospects for American-born physicists without hurting foreign-born physicists is to increase immigration quotas in general, rather than just for physicists. While preferentially admitting physicists adversely affects the job market for American physicists if there is already a shortage of jobs, admitting an increased number of immigrants with the same distribution of job skills as the existing population would not have this effect. The reason for this is that to zero order, every immigrant creates one job in the economy in addition to taking one job. The jobs created are not, for the most part, in the immigrant's own field, but are created by the products and services the immigrant consumes, and include jobs for auto mechanics, real estate agents, teachers, farmers and so on. Jobs for physicists are also created—by immigrants whose children take college physics courses, who buy consumer products that use technology developed by physicists, and who pay taxes that support defense and space research. Economic research, both theoretical and empirical, has shown that contrary to popular opinion, increasing immigration quotas in general (not just for one occupation) does not hurt the employment prospects or wages of the native-born population.[1]

In fact, due to first-order effects, increased immigration would lead to an improved job market for physicists, provided the zero-order term is made to vanish by not giving special preference in immigration to physicists. These first-order effects[1] include the fact that immigrants pay $2500 more in taxes each year than they consume in government services, mostly because the immigrant population includes fewer senior citizens than the general population. Some of these taxes support space and military R&D programs and pure research programs, which employ physicists. Also, immigrants are more likely than natives to start new businesses. Most of these businesses are small, and small businesses are the major source of new jobs in this country. Based on my own experience (I was laid off from a university research staff and hired by a small business), I suspect this is also true of physics jobs. An immigrant physicist who invents a new technology that can be used in a consumer product can create a large number of jobs for other physicists, both immigrant and native born. Even more such jobs will be created if, as Walsh rightly recommends, tax incentives are developed for in-house research by private industry.

There may be some subfields of physics, some positions with inflexibly low wages or some geographic areas for which there is a shortage of native-born scientists, and if this is true, then giving preference to immigrants capable of filling those positions does make sense. The zero-order effect will not be present if there is no native-born physicist to fill the position, and the beneficial first-order effects will still occur, so opposing the recruiting of aliens to fill these positions would be counterproductive. It is necessary to carefully research whether and where such shortages exist, of course.

We could improve the physics job market even more by increasing immigration quotas for everyone *except* physicists in those fields where there is a shortage of jobs, since this would make the zero-order effect on the job market beneficial to physicists. But butchers, bakers and candlestick makers could make the same argument, and if Congress listened to all of these special interests, the result would be lower immigration for all occupations. We would then lose both the zero-order and the first-order benefits.

I hope that those readers who, in response to Walsh's letter, urge their Congressmen to oppose preferential admission of immigrant scientists in fields where there is a shortage of jobs will also ask their Congressmen to increase immigration quotas in general. In doing so, we will be looking out for our own economic interests as well as following our humanitarian inclination to help our immigrant colleagues.

Reference

1. J. L. Simon, *The Economic Consequences of Immigration*, Basil Blackwell, Oxford (1989), ch. 11.

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I have some comments on immigration and the letter of lamentation from Cynthia Walsh. An employer won't hire an "alien" scientist unless he or she is better for the job than the available "native" scientists. And the United States is the winner in the transaction—we can always use a few more good men and women. Walsh refers to scientists' "employment rights." One person's right is generally someone else's duty, in this case apparently the taxpayers' duty to provide jobs for scientists in their favorite fields. No such moral or legal right exists, be it for physicists or Chevrolet dealers. Walsh is simply appealing for a trade barrier, which, like a tariff on Toyotas, would mulct the general public for the benefit of a special group. By the way, if indeed some of "America's scientists are retraining . . . into secondary education," as Walsh writes, isn't that good news?

Finally I, like Walsh, have a personal interest in this matter. My grandfather, who had received his doctorate in Prague, came to America 125 years ago to take a job for which he had been hired, doubtless in preference to local candidates. (His doctorate was in divinity, and the job was as the rabbi of a New York synagogue.)

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Minorities Can Fill US Science's Ranks

It is often asked whether the hiring of foreign scientists and engineers con-