

LETTERS

Medical Physics Profession Faces Growth Limits

For the last 20 years the American Association of Physicists in Medicine has had a growth rate of about 4 percent per year. If this growth were to continue, there would be approximately 10^{22} members when the third millennium draws to a close. Since such a population would be larger than the mass of the biosphere, it is unlikely that the AAPM will be able to sustain its current growth rate. The question then becomes, How many medical physicists are needed and when will the growth stop?

Unfortunately there are many signs that the supply is already outpacing the demand. The number of positions advertised in the AAPM's placement bulletin has decreased rapidly in the last year. There are also many anecdotal stories of senior physicists who have taken early retirement or a reduction in salary and of recent graduates of medical physics programs who have not been able to find jobs. There is a widespread feeling among medical physicists that the years of rapid expansion are over. This end of the halcyon days comes at a time when there is great interest in medical physics as a field that is growing while career opportunities in many traditional physics fields appear to be diminishing.

This sudden change in medical physics is related to the turmoil in medicine. While medical physics is a branch of physics, it is also a branch of medicine, and thus medical physicists are subject to the same economic and social forces that are affecting all of medicine. The current problems reflect changes that managed care is bringing to medicine and all medically related professions. Unfortunately it is likely that these problems will grow worse as pressures for cost reduction in medicine increase. The problems may be exacerbated by the fact that medical physicists are not licensed (except in Texas and Florida), so there are few barriers to replacing them with lower-paid substitutes. While the continued need for increasing medical care as the population ages is a positive sign, the profession likely will go through a period of stagnation before future growth begins.

Medical physics is an extremely rewarding career, since it combines the technical challenges and pleasures of

physics with a strong component of service to people. Few professions allow one to have so much fun while doing so much good. However, since medical physics seems to be faced with an overproduction of physicists in a time of decreasing demand, there may be extraordinary pressures placed on the profession. Young physicists thinking of entering the field and older physicists thinking about a career change would do well to consider what their prospects of finding employment actually are before they commit themselves to the field.

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NSF Invites Input on Review Process

Thank you for bringing to your readers' attention the National Science Foundation's continuing efforts to ensure that its proposal review process is as fair, efficient and effective as possible. Irwin Goodwin's article (September 1995, page 76) helps to focus attention on these efforts.

NSF has periodically undertaken such reviews, which have resulted in changes generally considered positive by the science and engineering community. The success of this reexamination hinges on the input and participation of that community.

Currently we are seeking external inputs in two ways. One is through an e-mail address (proprev@nsf.gov) that has been specifically created for this purpose and will remain in effect until 1 December 1995. The other is through planned face-to-face interactions with selected community members. For example representatives of NSF's advisory committees participated in an informal workshop at NSF on 15 September. Other exchanges at scientific meetings, as well as at a larger NSF forum, are being pursued.

Through both these mechanisms, we are receiving valuable comments and suggestions about what already works well, and what could work better. These inputs will be incorporated into our recommendations, to be consolidated and disseminated by next sum-

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