

Appendix C

Public Comment on the National Research Service Award Program

To gain a better understanding of the conditions and forces that affect training needs, the Committee on National Needs for Biomedical and Behavioral Scientists solicited public comment from experts in the fields supported by the National Research Service Award (NRSA) program. In letters to 885 investigators, directors of training programs, graduate deans, representatives of industry, students, and postdoctoral fellows, the committee posed questions such as the following:

- What role do NRSA traineeships and fellowships play in training for careers in biomedical, behavioral, and clinical research? How does the NRSA program compare in this regard with other forms of federal support, such as research assistantships, dissertation grants, and career development awards?
- What improvement should be made to NRSA traineeships and fellowships and to other forms of federal research training support?
- Should opportunities for research training be modified in response to (1) the expansion or contraction of particular research fields or (2) trends in the hiring of researchers by universities, industry, and academic health centers? If so, how?

The committee received 109 responses to its inquiry, which are summarized below.

THE ROLE OF THE PROGRAM

Many respondents regarded the NRSA program as the single most important component in the continuum of research training support in the biomedical and behavioral sciences and described the program as “invaluable,” “critical,” “irreplaceable,” and “essential.”

Others noted that “these programs feed the whole research engine of this country” and that they “set the gold standard for quality students, faculty, and programmatic aspects of graduate education.” Several present or former award recipients reported that they would not have been able to attend graduate school or would not have succeeded in their careers without NRSA support.

Other funding mechanisms for research training in the basic biomedical and behavioral and social sciences complement the NRSA program but do not generally compete with it. NRSA traineeships and fellowships are generally offered to those in the early phases of pre- or postdoctoral study. Research assistantships and dissertation grants, on the other hand, are often reserved for students at more advanced stages of study and emphasize the applications of skills to a specific research project, rather than to the development of a broad base of knowledge. Graduate students from other countries, however, are an exception to this rule. Because they are not eligible for NRSA support, foreign students may be appointed to research assistantships from the time they enter graduate school.

Less research-intensive institutions, where research assistantships are not as readily available, report that they depend heavily on NRSA support. Much the same appears to be the case in such fields as clinical research, where research assistantships are not as common as in the basic biomedical sciences. For prospective clinical investigators, the NRSA program may be the primary source or one of only a few sources of research training support.

The NRSA program offers benefits beyond financial support for its participants. Predoctoral awardees usually complete their degrees more quickly than their

classmates who do not have NRSA support, because this funding allows them to concentrate on their studies, rather than on teaching duties or their mentor's research.

NRSA fellowship holders, whether at the pre- or postdoctoral level, are provided a level of independence not generally experienced with other mechanisms of support. Applicants for fellowships choose their own mentors and projects, and those who ultimately receive awards have greater control over their time than do their counterparts who work on research grants. Applying for a fellowship, furthermore, provides students and postdoctorates the opportunity to gain experience in preparing a proposal and to become familiar with the application process itself—an important preview of life as an independent investigator.

On the whole, respondents believed that the NRSA program provides its participants with a good start on a research career. As one letter writer reported, "We can place trainees in the very best postgraduate programs or faculty positions." Another maintained that most trainees go into academic research careers and that NRSA recipients in clinical fields often stayed in research, even if only part-time.

Beyond the direct effect on funding recipients, the NRSA program is widely thought to enhance the overall quality of training in the biomedical and behavioral sciences. The requirement for instruction in the responsible conduct of research, for example, often prompts institutions to provide ethics training to all students. Likewise, training grants may provide funds for retreats, seminars, and other activities that benefit all students and contribute to creating a "community of scholars." The prospect of competing for training grants and fellowships, furthermore, motivates all applicants to strive for excellence, even if they do not obtain an award.

PROGRAM IMPROVEMENTS

While respondents praised the NRSA program on the whole, they also had suggestions for improvement, most of which centered on program funding. The most common recommendation was that stipends be increased. [Note: In November of 1998, following the completion of the public comment process, the National Institutes of Health, the Agency for Healthcare Research and Quality, and the Health Resources and Services Administration announced that stipends for NRSA awards made in fiscal year 1999 would increase

by approximately 25 percent for trainees and fellows at all levels of experience.] Respondents also suggested that the number of trainees and fellows be expanded, that the length of awards be increased, and that funding for various aspects of the program (e.g., health insurance and tuition) be improved.

In making the case for a stipend increase, respondents often cited the other research training options and career paths available to students and fellows. Outside the NRSA program, graduate students receive higher stipends with a National Science Foundation Graduate Research Fellowship and may earn more and receive greater benefits working as a research assistant. One respondent noted that students in his department generally prefer research assistantships to NRSA funding because their compensation as a research assistant is higher.

At the postdoctoral level, one respondent called for stipends to be increased to the level of salaries for postdoctorates working on the National Institutes of Health (NIH) campus. Others recommended that stipends for health care professionals should be comparable to what M.D.s earn as residents, for example, or what nurses earn in practice. In addition to increased stipends, a number of respondents suggested loan forgiveness for physicians and dentists, so that they would not feel compelled to forgo a research career in order to pay back their educational debt.

A number of respondents called for stipends to be indexed to inflation or the cost of living in a particular area. One writer complained that stipends were too low to support someone living in Los Angeles; another made the same observation about the difference between the stipends and the cost of living in New York City.

The comments about educational payments for NRSA trainees and fellows echoed those made about stipends: They should be increased. Most respondents believed that NRSA reimbursement for tuition is too low, which forces institutions to accept significant cost sharing. On this point, however, there was less consensus than on the subject of stipends. A few commentators suggested that universities have a responsibility to support some tuition costs or even waive tuition for NRSA recipients.

In addition to increasing stipends and tuition reimbursement, another common suggestion was to increase the number of participants and extend the length of their tenure. In particular, some thought that training grants and fellowships should be granted to a wider range of

institutions than at present. While NRSA policy allows for five years of predoctoral support, some NIH institutes encourage universities to limit appointments on NRSA training grants to three years or less; many respondents thought this practice was unrealistic, as it generally takes seven years to complete a Ph.D. in the biomedical sciences. Other respondents raised similar concerns about the policy limiting postdoctoral awards to three years. One letter writer suggested that bridge awards be established to fill the gap between the end of an NRSA postdoctoral appointment and eligibility for other awards.

Regarding other aspects of the program, many commentators called for increased funding for health insurance, equipment, travel, and administration. One postdoctoral fellow lamented that after paying his health insurance premium, little money was left for research supplies. Noting the heavy administrative workload that accompanies a training grant, one respondent suggested such awards include support for a portion of the director's salary. Another recommended that training grants include funds for at least a part-time administrative assistant.

Beyond suggestions for improved funding, a number of respondents called for expanded eligibility for research training support. Some commentators believed that foreign nationals, particularly those who are applying for permanent residency, should be permitted to participate in NRSA programs. Others were concerned that the requirement for full-time research training discourages the recruitment and retention of women and recommended that part-time research training be an option.

Finally, some respondents expressed dissatisfaction with the length and cumbersome nature of the review process. Their recommendations for improvement included simplifying application forms and reducing the time required for review.

SUGGESTED MODIFICATIONS IN RESPONSE TO WORKFORCE TRENDS

Respondents were resoundingly opposed to reducing the overall size of the NRSA program. If additional

funds become available, they believe that it merits expansion.

There was much less consensus on the question of whether research training in specific fields should be modified in response to hiring patterns or the expansion or contraction of research opportunities, but the majority of the respondents believed that "careful" adjustments could be beneficial. Some called for a modification in research training in fields where there are few academic positions available, with one individual noting that overtraining wastes resources and denies training opportunities to others. Respondents disagreed about whether the NIH or local mentors should be responsible for making the necessary decisions, but a number believed that the process should be guided by periodic program reviews. One person recommended a survey of prospective employers.

Of the fields singled out for increases in research training, the ones mentioned most often were generally in the clinical and behavioral sciences, such as health services research, outcomes research, nursing, dentistry, and epidemiology and biostatistics. Also mentioned were bioinformatics and a wide variety of clinical and behavioral research fields. Other commentators suggested an increase in broad-based, interdisciplinary research training programs to help prospective investigators respond to future research advances.

Most respondents did not consider whether increases in research training support might result in cuts in other forms of funding. Of those that did, most would shift support from research assistantships to training grants; within the NRSA program others suggested reallocating funds from individual fellowships to training grants.

The very few fields that were singled out for reductions in research training included gastroenterology, veterinary science, and nursing.

Many respondents made suggestions about the evaluation—and reevaluation—of research training programs, so as to establish which are the most successful and which should be expanded or contracted. Several commentators recommended that the outcomes of training grants and fellowship awards be compared to determine where additional funds should be directed.