

News from the National Institute of General Medical Sciences (NIGMS)¹

WHAT IS THE RECENT HISTORY OF NIH GRANTS AWARDED TO FEMALE SCIENTISTS?

What Are The Numbers and Sizes of Those Grants?

This column was inspired by questions brought to the attention of NIGMS staffers by members of the scientific community. The answers can be found in the publication "Women in NIH Extramural Grant Programs", which is accessible via the Division of Research Grants home page (<http://www.drg.nih.gov>) or can be requested by e-mail (asknih@odrockm1.od.nih.gov). The document covers the period from 1984 to 1993 and is the most recent publication on the subject; detailed breakdowns are included by geographic area, award mechanism, award size, Institute, etc. The following information was taken from that source.

Grant Applications

The percentage of applications from female principal investigators has increased over the past decade from 16% of the total in 1984 to 22% of the total in 1993. The number of applications from women increased from 2,821 to 4,883 over that time period.

Grants Awarded

The percentage of grant awards to female principal investigators increased in a parallel manner from 15% of the total awards in 1984 to 21% of the total awards in 1993. The number of awards to women increased from 845 to 1,123 over that time period.

Success Rates

In 1993, the success rate (number of grants awarded divided by number of applications received) was 22.6% for female applicants and 24.1% for male applicants. This can be further separated by individually examining the rates for new competing applications (18.1% for women vs. 17.8% for men) compared to competing continuation applications (38.4% for women vs. 40.2% for men).

Grant Size

In 1993, the average total dollar amount (direct and indirect costs) for competing grants to women was \$214,600; for competing grants to men it was \$240,700. From 1984 to 1993, the average dollar size of grant awards rose by 88% for female investigators and by 76% for male investigators. Generally, female investigators were more likely than their male colleagues to choose award mechanisms with constrained budget limits (e.g. the FIRST Award). Men were much more likely to be the heads of large, complex program project grants. When

controlled for award mechanism, budgetary differences by gender became very small. At the present time, all awards are four years in average length, but the total duration of projects (number of years of continuous funding) to female investigators is shorter.

Conclusions

The majority of research grants are awarded to men, because men apply in greater numbers. The success rates are comparable for female and male investigators, for both new and renewal competing awards. There are differences in the average sizes of grants to women and men, but they are minimized when the data are evaluated for junior vs. senior investigators, and the respective award mechanisms for which they apply. Women consistently request smaller budget dollar amounts than men; these differences are likely to disappear as the total duration of grants to female investigators increases. It is still quite rare to see a large multi-project grant headed by a female investigator.

Within the NIGMS, efforts are being made to be responsive to the needs of the entire scientific community, including women. Where gender balance is lacking in a scientific area, staff can consider this factor when making funding decisions, just as other aspects of diversity are considered. As the NIGMS seeks to fulfill its mission as the "basic science institute" of the NIH, it remains committed to accepting primarily investigator-initiated, non-disease targeted research grant applications. We seek to achieve scientific balance when funding investigators, along with other considerations such as supporting new opportunities and providing funding stability. This is accomplished by using a range of currently available mechanisms, such as targeted support for new investigators, "bridge" interim funding, inflationary increases for established research projects, support of innovative high risk/high payoff research, supplements to research grants for underrepresented minority or disabled students/investigators, etc. Visit the NIGMS home page for more information (<http://www.nih.gov/nigms>).

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¹ Future topics for this column: program project grants at the NIGMS, using CRISP to search for funded NIH grants, attribution of grant support, and your suggestions.

² Send comments on this column to: longr@gm1.nigms.nih.gov.