WOMEN IN NIH EXTRAMURAL GRANT PROGRAMS

FISCAL YEARS 1984-1993

FY 84-93

IMPAC

NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS

Prepared by the Statistics, Analysis and Evaluation Section
Information Systems Branch
Division of Research Grants
National Institutes of Health

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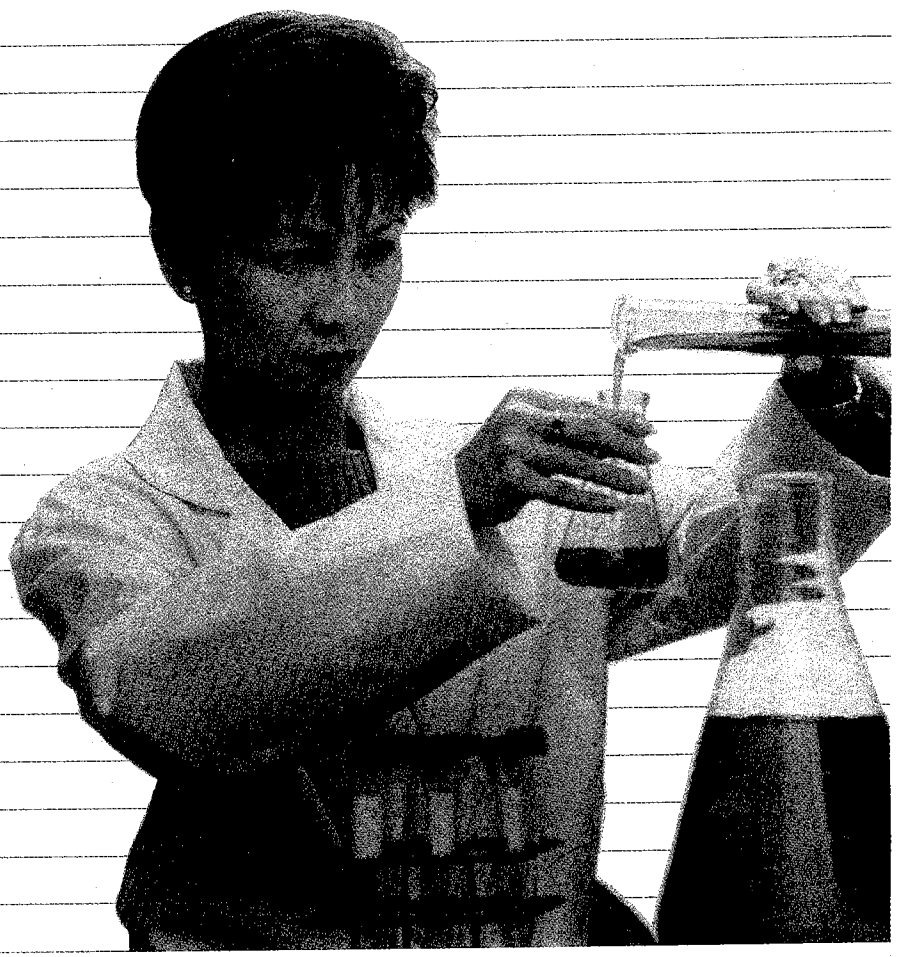

NATIONAL INSTITUTES OF HEALTH
DIVISION OF RESEARCH GRANTS

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PREFACE

This publication represents the third issue of Women in NIH Extramural Grant Programs, which reports on the success of women in NIH extramural grant competition from fiscal years 1984 through 1993, with emphasis placed on the most recent fiscal years.

Through a series of graphs, tables and brief data analysis, this publication presents a comparison of the relative influence of women and men in biomedical research. It addresses the following subjects: chapter 1 presents information on the extramural budget and characteristics of the data; chapter 2 provides information for competing research project grant (RPG) awards; chapter 3 provides data on Traditional Research Project (R01) and First Independent Research Support and Transition (FIRST, R29) awards; chapter 4 presents RPG data by Institute/Center; chapters 5 and 6 discuss research grant awards and funding mechanisms; chapter 7 profiles principal investigators receiving R01 and R29 awards; chapter 8 presents data for training grants and fellowships.

Data include, for the first time, research institutes of the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA), which were integrated into the NIH in FY 1993. Note that data depicted in this publication for FY 1993 and prior fiscal years include ADAMHA data and that years cited are Federal fiscal years, October 1 through September 30. In addition, award amounts (or sizes) include both direct and indirect costs, unless otherwise stated.

This publication was developed by the Statistics, Analysis and Evaluation Section (SAES), Information Systems Branch, Division of Research Grants. Comments and suggestions are encouraged and may be addressed to Ms. Dorrette Worrell, 301/594-7267 (voice), 301/594-8226 (facsimile), OCG@CU.NIH.GOV (E-Mail), or in writing, 5333 Westbard Avenue, Room 109, Bethesda, Maryland 20892.

Distribution of the NIH Budget by Funding Mechanism, Fiscal Years 1984 and 1993

	Fiscal Year 1984		Fiscal Year 1993	
	Dollars (in millions)	% of Total NIH Budget	Dollars (in millions)	% of Total NIH Budget
Total NIH Budget	$4,827.8	100.0%	$10,328.1	100.0%
Extramural Program*	3,876.7	80.3	8,515.6	82.5
Intramural Research and Other**	951.1	19.7	1,812.5	17.5
	Dollars (in millions)	% of Total Extramural Program	Dollars (in millions)	% of Total Extramural Program
Total Extramural Program	$3,876.7	100.0%	$8,515.6	100.0%
1) Research Grants***	3,279.5	84.6	7,257.0	85.2
a) Research Projects (RPG's)***	2,559.3	66.0	5,731.4	67.3
(R01)+	2,046.3	52.8	3,723.3	43.7
(P01)	398.4	10.3	799.2	9.4
(R35,R37)	---	---	434.2	5.1
(U01)	30.8	0.8	364.6	4.3
(R23,R29)	48.8	1.3	257.7	3.0
(SBIR--R43,R44,U43)	21.3	0.5	112.1	1.3
(Remaining RPG's - P41 for NIGMS only, P42,R22,R55 for FY93,U19)	13.6	0.4	40.4	0.5
b) Research Centers***	452.4	11.7	910.6	10.7
c) Other Research Grants***	267.8	6.9	615.0	7.2
2) Contracts	401.8	10.4	869.5	10.2
3) Research Training Programs	192.7	5.0	359.7	4.2
a) Individual Awards (fellowships)	36.9	1.0	62.6	0.7
b) Institutional Awards (training grants)	155.8	4.0	297.1	3.5
4) Remaining Extramural Awards##	2.7	0.1	29.4	0.3

* Includes direct and indirect costs.
** "Other" includes management costs, buildings and facilities, interagency agreements, etc.
*** See Glossary for definition of terms.
\+ When R37 (MERIT) awards are added to R01's, the total in FY1993 is $4,086.3 million, or 48.0 percent of the total extramural program.
Includes construction, international training grants in epidemiology, medical library grants, and grants for repair, renovation and modernization of existing research facilities.

Note: Includes NIAAA, NIDA, and NIMH.
Source: NIH, DRG, Information Systems Branch

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HIGHLIGHTS

Chapter 1: Introduction (Pages 1-10)

- Fiscal year 1993 marked the integration of the research institutes of the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) into the NIH. Data for prior years has been adjusted to include ADAMHA data.

- Funding for extramural awards has more than doubled since FY 1984 to $8.5 billion and represents 83 percent of the total FY 1993 NIH budget.

- Research project grants (RPG's) comprised approximately two-thirds of extramural support over the FY 1984-1993 period.

- From FY 1992, the number of competing applications reviewed increased 9 percent to 22,123 (excluding Small Business Innovation Research grants, or SBIR's); medical school applicants submitted 11,301 applications.

- Improved computer screening of historical data has increased gender capture rates.

- Note that SBIR awards are excluded, unless stated otherwise, since gender information is not requested from SBIR applicants.

Chapter 2: Research Project Grants (RPG) (pages 11-34)

- Research project grants (RPG's) comprised approximately 75-77 percent of research grants over the FY 1984-1993 period.

- The number of RPG awards declined by 9 percent from FY 1992 to 1993.

- The success rate for competing RPG's fell to 23.6 percent in FY 1993, a decline of almost 6 percentage points from FY 1992. The success rate for men was 1.5 percentage points higher than that for women.

- For both men and women applicants, the success rate for new (Type 1) RPG's was approximately 18 percent in FY 1993; for competing continuations (Type 2) it was 40.2 percent for men and 38.4 percent for women.

- Approximately 90 percent of the applications awarded in the past five years ranked in the first quartile of percentile scoring.

- Total RPG dollars awarded increased by 124 percent over the FY 1984-1993 time period.

- In FY 1993, the average length of funded competing RPG's was approximately 3.9 years for both men and women.

Chapter 3: Traditional Research Project Grants (R01) and FIRST Awards (R29) (pages 35-48)

- The success rates for both men and women applicants were approximately 21 percent in FY 1993, the lowest rate from the FY 1984-1993 period.

- Success rates for R01 applicants from the West region were higher than for R01 applicants from other regions.

- The greatest number of applications came from the Northeast region.

- The success rate for competing continuation (Type 2) applicants was approximately 36 percent in FY 1993, the lowest of the FY 1984-1993 period.

- For Type 1 awards, the percent of funding (or budget) reduction from the amount requested was approximately 2 percentage points higher for women than for men. For Type 2, the reverse was true; women had award dollars reduced by 1.7 percentage points less than men.

- For men, there was little difference in success rates for first time R01 applicants versus more "experienced" applicants. For women, more experienced applicants had a success rate 1.2 percentage points higher than that of first time applicants.

- In FY 1993, women had a higher success rate than men for R29 (FIRST) awards. Success rates for all R29 applicants were the lowest since FY 1987.

Chapter 4: RPG Applications and Awards by Institutes/Centers (pages 49-62)

- The National Cancer Institute (NCI) reviewed the largest number of applications in FY 1993, 3,590, including 744 from women.

- NCI made the largest number of awards in FY 1993, 793, including 179 from women.

- The National Eye Institute (NEI) had the highest overall success rate in FY 1993, 33.8 percent; the National Institute of Nursing Research (NINR) had the lowest at 11.1 percent.

- The National Center for Human Genome Research (NCHGR) offered a relatively small number of awards, 41, but had the highest average award, $589,151.

- The average NIH funding reduction of direct costs requested for competing awards, 25 percent, fell between the highest reduction (42 percent) from NCHGR and the lowest reduction (16 percent) from the National Institute on Drug Abuse (NIDA) and the National Institute of Neurological Diseases and Stroke (NINDS).

- The competing RPG award percentile rank ranged from a low of 7 (NIAMS) to a high of 27 (NCHGR).

Chapter 5: Research Grants Awards (pages 63- 74)

- From FY 1984-1993, funding for men more than doubled while funding for women more than tripled; FY 1993 awards totalled $7.1 billion.

- Women received 16.4 percent of the research grant dollars in FY 1993, an increase from 10.2 percent in FY 1984.

- The total dollars awarded to women program directors increased by 141 percent from FY 1984, while funding to men increased by 37 percent.

- The average grant to women compared to the average for men has increased for both competing and non-competing awards since FY 1984. For FY 1993, the ratios were 0.84 and 0.76, competing and noncompeting, respectively.

- In FY 1993, male and female recipients from the Northeast region received the highest number of grants and dollars for awards.

- The number of awards resulting from Requests for Applications (RFA's) has increased considerably for both men and women from FY 1984-1993, reaching a peak of 1,063 in FY 1992, then declining slightly to 1,000 in FY 1993.

Chapter 6: Selected Research Grant Mechanisms (pages 75-92)

- The number of Academic Research Enhancement Awards (AREA, R15) to all recipients declined by 15.6 percent from FY 1992.

- The success rate for R15 awards was 29.0 percent for women, 23.5 for men in FY 1993.

- The dollars allocated for Small Research Grant (R03) awards have more than doubled since FY 1984.

- The female success rate for R03 awards was 25.0 percent in FY 1993, exceeding that for men by 3.1 percentage points. This marked the fourth consecutive year in which women had higher success rates for R03's than men.

- Shannon awards (R55) decreased considerably in both number and dollars awarded from FY 1992 to FY 1993, largely due to changes in funding procedures.

- For research career programs (K Awards), women had a success rate of 42.5 percent, compared to 38.9 percent for men; FY 1993 marked the second consecutive fiscal year in which women had higher success rates than men.

- Dollars allocated for clinical investigator (K08) awards increased from FY 1992, while dollars for modified research career development awards (K04) and individual physician scientist awards (K11) declined.

- The National Heart, Lung and Blood Institute (NHLBI) was the largest sponsor of K awards, with 360 awards totalling $29.6 million.

Chapter 7: Principal Investigator Characteristics (pages 93-110)

- In FY 1993, R01 and R29 principal investigators submitted grant applications at an older age than they did in FY 1984.

- Applicants age 46 and older received a higher proportion of research grant support in FY 1993 than they received in FY 1984.

- Women received a higher average award amount than men in the 35 and under age group. From FY 1984, average dollar amount increased the most for men age 46 and older. Male applicants and awardees averaged 2 years older than female applicants and awardees in FY 1993.

- Success rates were lower for both men and women in FY 1993 than in FY 1992 or FY 1984.

- Over the FY 1984-1993 period, there was little difference in success rates related to degree attained. For FY 1993, men and women holding a PhD had slightly higher success rates than same gender MD holders.

- For Type 1 R01 and R37 awards, there was little difference by gender in average award dollar reduction. For Type 2 awards, women with MD's had their award dollars reduced 5.2 percentage points more than men.

- When comparing success rates by race/ethnic origin, white applicants averaged 5 to 6 percentage points higher than non-white applicants over the FY 1984-1993 time period.

Chapter 8: Training Grants and Fellowships (pages 111-128)

- The total number of trainee appointments (T32 and T35) declined 24 percent in FY 1993 from FY 1992. The number of female trainees peaked in FY 1992, the number of males in FY 1984.

- The National Institute of General Medical Sciences (NIGMS) awarded the largest number of trainee appointments in FY 1992, 4,104: 2,334 to men and 1,759 to women.

- Individual fellowships (F31 and F32) totalled 2,471 in FY 1993. The total has remained fairly constant since FY 1991. The number of awards received by men has increased by 190 since FY 1991, while the number received by women has declined by 150 since then.

- White women received the largest number of fellowships, 358 in FY 1993. Proportionally, minority women received a higher percentage of fellowships than white women.

- The total number of individual fellowships and dollars awarded has declined since 1984 due to the reduction in awards to fellows age 35 or less.

- The NIGMS awarded the largest number of fellowships, 594, and also the largest number to women (178). However, the NINR had the highest female representation, 79 percent, proportionally.

- Postdoctoral fellowships (F32's) comprised 1,637 of the 2,471 total fellowships awarded. Of all types of fellowships, the predoctoral fellowship (F31) category had the highest proportion of women recipients, 43.4 percent.

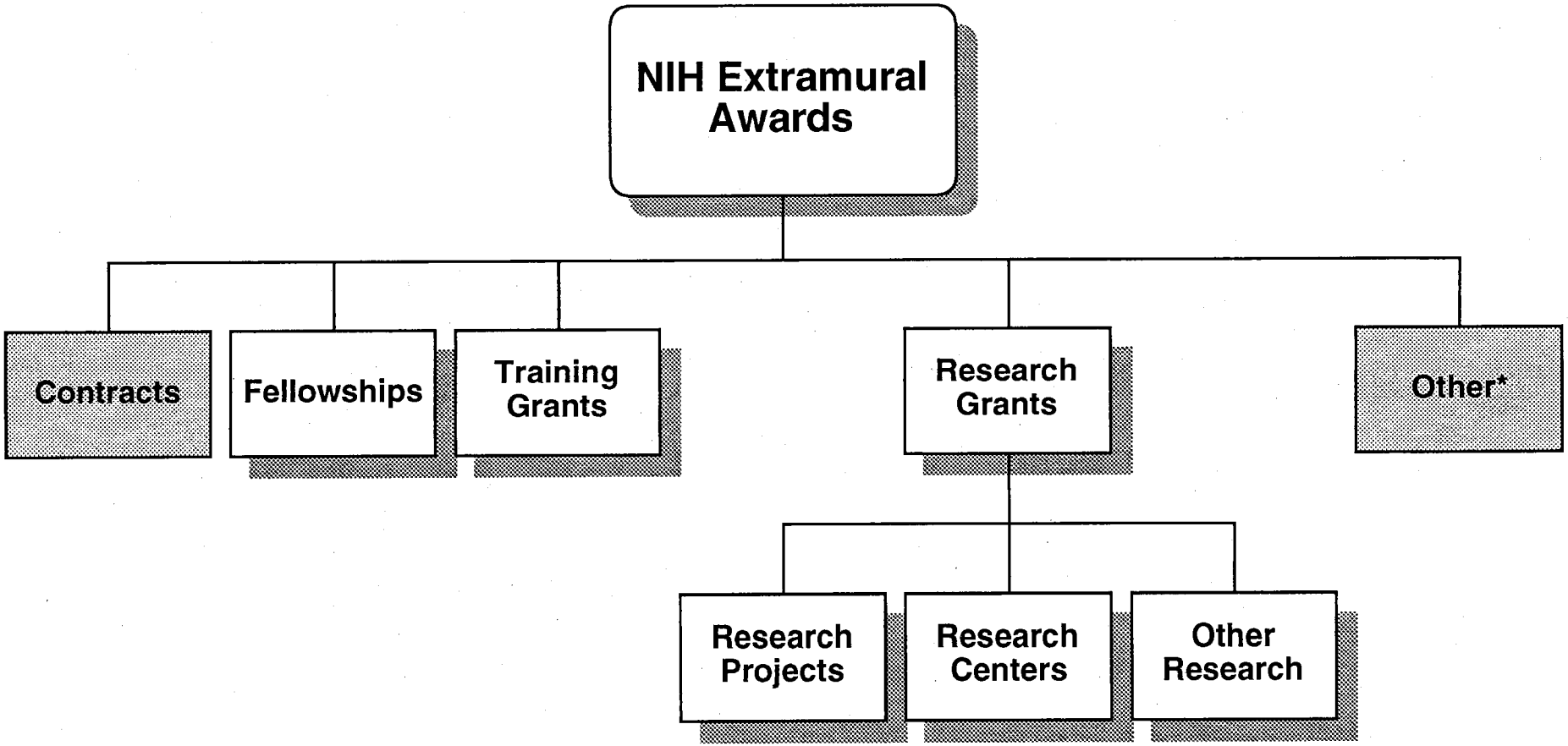
- Predoctoral fellowship (F31) success rates were much higher in FY 1993 than in FY 1992. In FY 1993, the success rate for men was 20.8 percentage points higher than for women.

- Postdoctoral fellowship (F32) success rates were slightly higher in FY 1993 than in FY 1992 for both men and women. The success rate for women was 1.9 percentage points higher than that for men.

1. Introduction

1.1 Scope of Publication
1.2 NIH Budget and NIH Extramural Awards
1.3 Gender, Race/Ethnic Origin Reporting and Characteristics of the Data
1.4 Research Project Grant Applications Submitted by Kind of Organization

NIH EXTRAMURAL PROGRAMS



*Includes awards for Research Facilities Construction Grants, Repair and Renovation of Research Facilities, Library Grants, and International Grants in Epidemiology.

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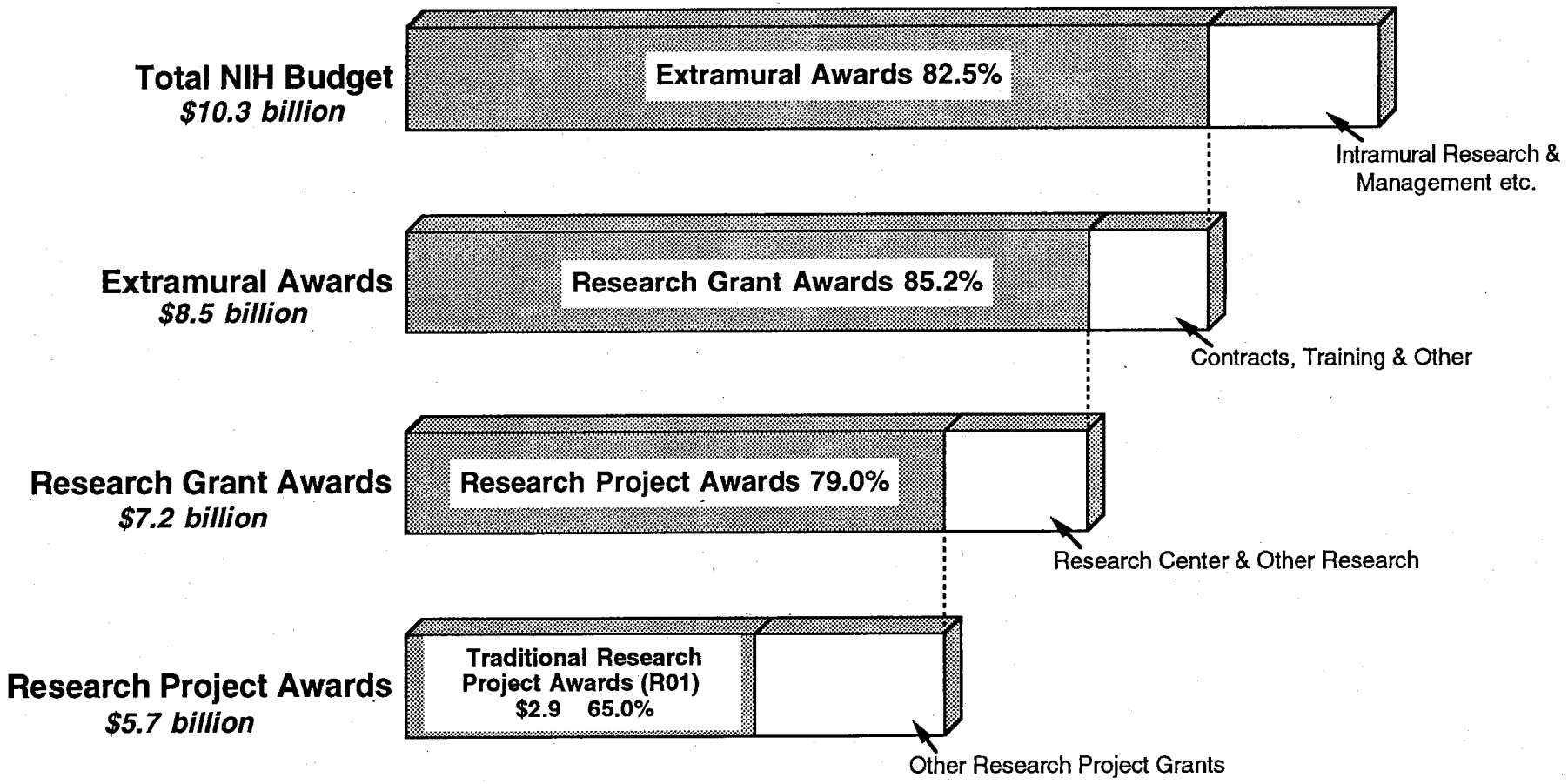
1.1 Scope of Publication

The focus of this publication is on women recipients of NIH extramural grants, particularly research project grants. It includes information about women who are potential researchers studying under NIH-supported fellowships and training grants and women in NIH extramural research grants competition. Data on clinical studies that include female subjects and women performing intramural research at the NIH are outside the scope of this publication.

This report is confined to NIH extramural awards, which include contracts, fellowships, training grants, and research grants. Research grants, in turn, comprise research project grants (RPG's), research center grants, and other research grants. Research project grants account for about 80 percent of research grant funds, while research centers and other research grants account for the remainder.

This publication does not cover contracts and "other" extramural awards (i.e., awards for Research Facilities Construction Grants, Repair and Renovation of Research Facilities, Library Grants, and International Grants in Epidemiology) because data on gender is not collected on the applications for these types of awards.

NIH Budget, FY1993



Source: NIH, DRG, ISB, SAES

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1.2 NIH Budget and NIH Extramural Awards

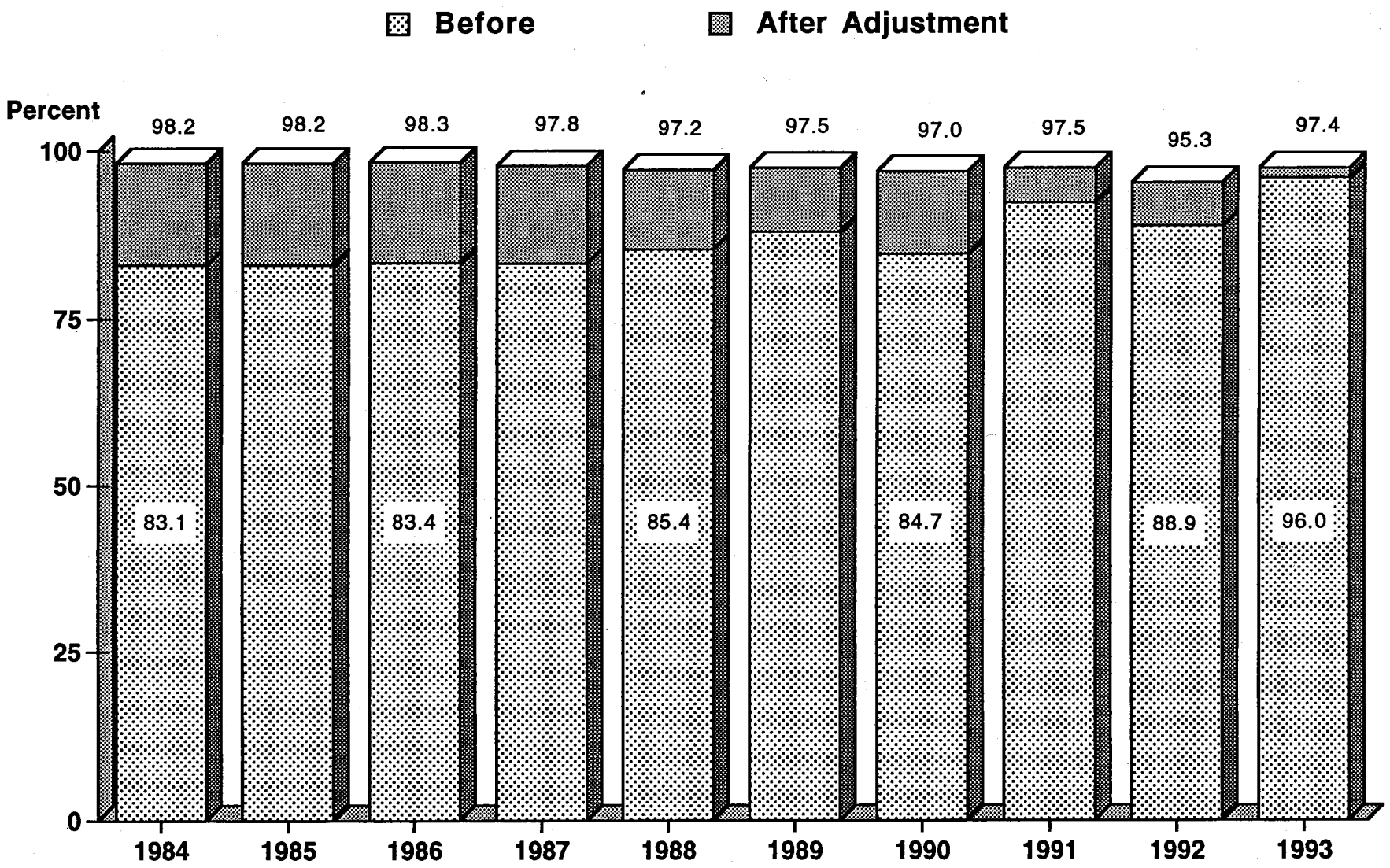
The National Institutes of Health (NIH) provides an important share of the money spent on biomedical research in this country. The FY 1993 total NIH budget of $10.3 billion includes extramural award obligations of $8.5 billion. The total NIH extramural awards for FY 1993 more than doubled since FY 1984. Eighty five percent, or $7.26 billion, of the FY 1993 extramural budget supported research grants. This percentage has changed little from FY 1984, when 84.7 percent of the extramural budget was dedicated to research grants. Research projects account for 67.3 percent of the total NIH extramural budget.

The NIH budget for FY 1984 through FY 1993 is shown below. Also indicated are budget subtotals for extramural awards, research grants and research projects. Note that the subtotal for research projects is a component of research grants, which is a part of extramural awards.

NIH Budget (in million dollars), Fiscal Years 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Total	4,828	5,497	5,689	6,686	7,187	7,894	8,505	9,218	10,010	10,328
Extramural Awards	3,877	4,503	4,701	5,575	6,011	6,641	7,099	7,735	8,347	8,516
Research Grants	3,279	3,815	3,985	4,735	5,133	5,619	5,961	6,541	7,079	7,257
Research Project Grants	2,559	2,970	3,135	3,757	4,063	4,444	4,690	5,107	5,540	5,731
Trad. Research Projects (R01)	2,046	2,343	2,404	2,767	2,823	3,002	3,087	3,348	3,621	3,723

Response on Gender for NIH Competing Research Project Applications*
FY1984 - 1993



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*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

1.3 Gender, Race/Ethnic Origin Reporting and Characteristics of the Data

Since 1981, gender, race and ethnic origin of competing applicants has been recorded in an encrypted form. Principal investigators are asked to submit information on race, gender and age as part of their application (see Appendix C). The application page, entitled Personal Data on Principal Investigator/Program Director, states:

> "Upon receipt and assignment of the application by the PHS, this form will be separated from the application. This form will **not** be duplicated, and it will **not** be part of the review process. Data will be confidential... All analyses conducted on the data will report aggregate statistical findings only and will not identify individuals."

Because completion of this form is voluntary, data on race, gender and age may be omitted. Also, note that Small Business Innovation Research grants (SBIR's) are **excluded** because personal data items for SBIR's are not requested.

Those who have not responded to the questions on race, gender or age in the current fiscal year are termed "nonresponse" applicants or awardees. This publication emphasizes the responding portion of the population but also discusses the nonresponding portion where pertinent. To use all available data on race, gender and age, the Division of Research Grants (DRG) developed a computerized process that composed records from an investigator's prior responses on other applications and grants. Individuals who did not provide requested data were then categorized on race and gender based on all prior responses submitted to NIH, i.e.,"adjusted" data. It should be noted that during FY 1993 system coding changes to identify the gender of prior applicant submissions resulted in higher gender response rates.

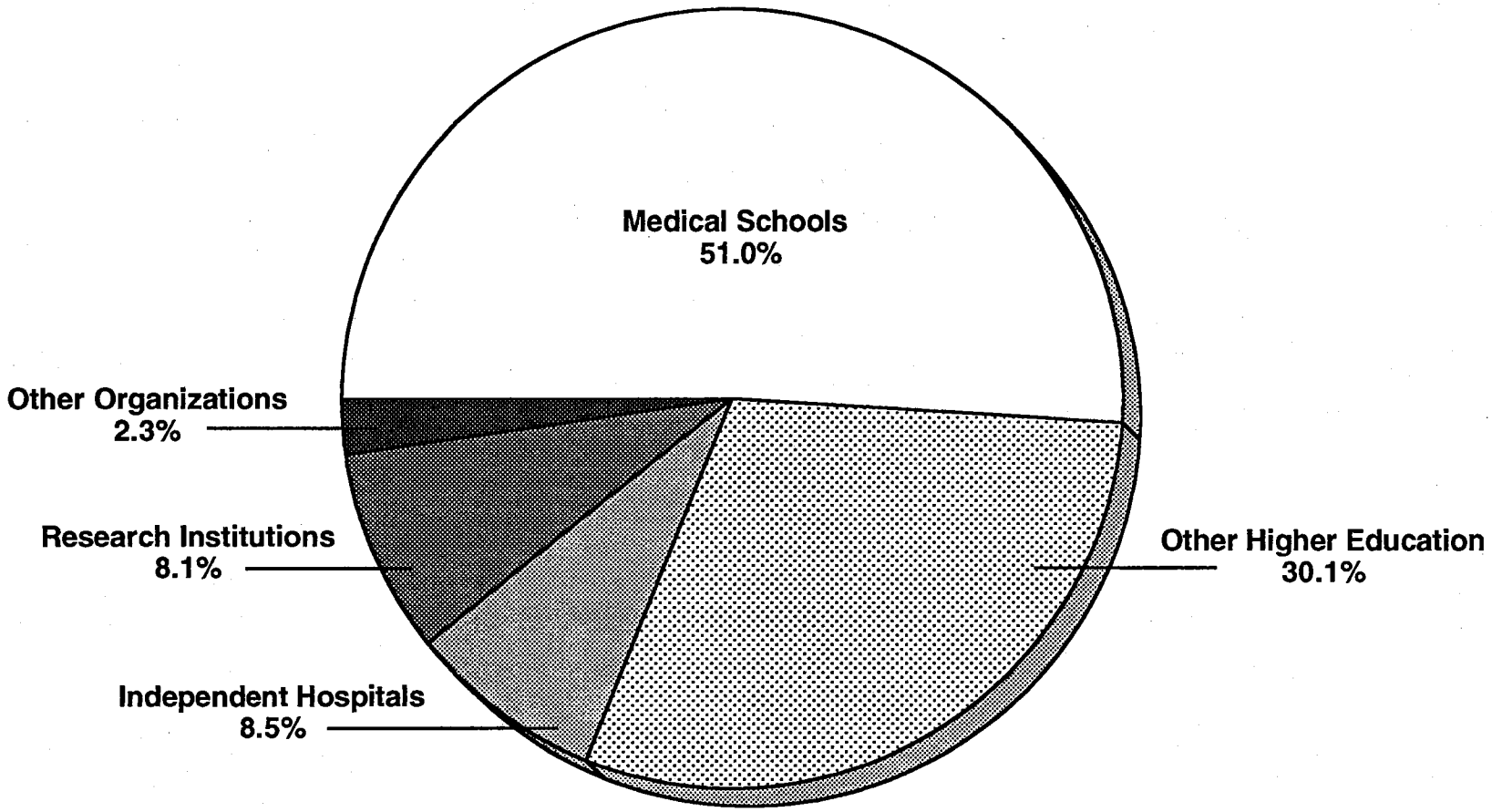
Gender Response Rate for Competing Research Project Grant Applications*, FY 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Original Response Rate	83.1	83.1	83.4	83.3	85.4	88.0	84.7	92.4	88.9	96.0
Adjusted Response Rate	98.2	98.2	98.3	97.8	97.2	97.5	97.0	97.5	95.3	97.4

* Excludes SBIR's for which gender and racial/ethnic information is not requested.

NIH Competing Research Project Applications,* FY1993

by Kind of Organization



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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1.4 Research Project Grant Applications Submitted by Kind of Organization

There were a total of 22,255 RPG applications submitted for review in FY 1993. Applicants from medical schools and other higher education institutions submitted the greatest proportion of competing RPG applications during FY 1993. Medical school applicants submitted 11,301 RPG applications, 51 percent of the total. Other higher education applicants submitted 6,727 RPG applications, 30 percent of the total.

Number of Competing RPG Applications* Reviewed by Gender and Kind of Organization, Fiscal Year 1993

	Other Higher Education	Research Organizations	Independent Hospitals	Other Organizations	Medical Schools
Male	4,881	1,332	1,384	376	8,814
Female	1,693	407	445	146	2,190
Nonresponse	154	49	59	25	297
Total	6,727	1,788	1,888	548	11,301

* Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.

2. Research Project Grant (RPG) Applications and Awards

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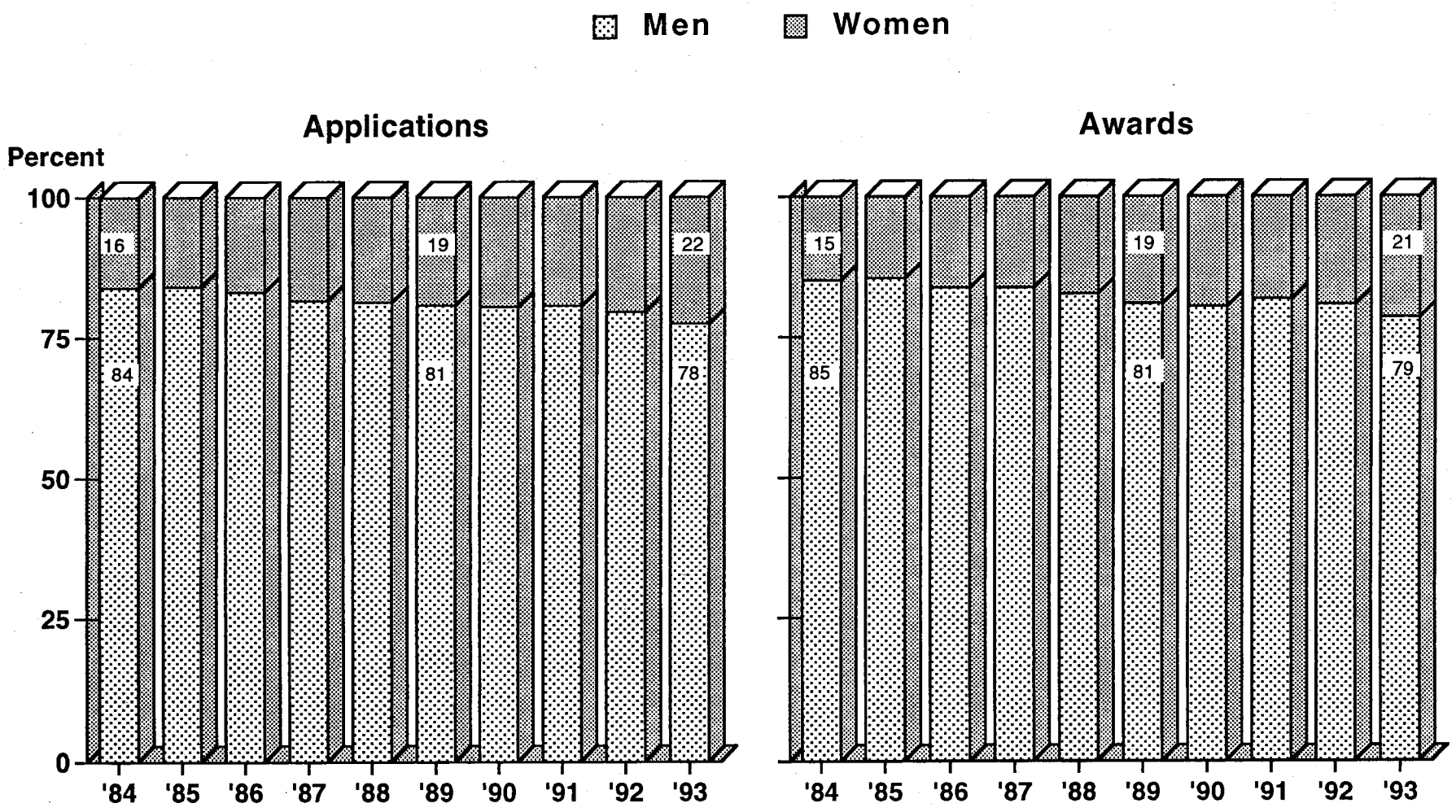
Distribution of NIH Competing Research Project Grant Applications and Awards* by Gender, FY1984-1993



*Excludes nonresponses and SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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2.1 Number of Competing RPG Applications and Awards

In FY 1993, women submitted 4,883 applications for competing RPG's, a 73 percent increase since FY 1984. Men submitted 16,788 competing RPG applications in FY 1993, an increase of 14 percent from FY 1984. The number of competing RPG awards for women has also risen over the period and peaked in FY 1993 at 1,123. The total number of awards to men during FY 1993 declined by 11 percent from FY 1992, while awards to women increased by 3 percent.

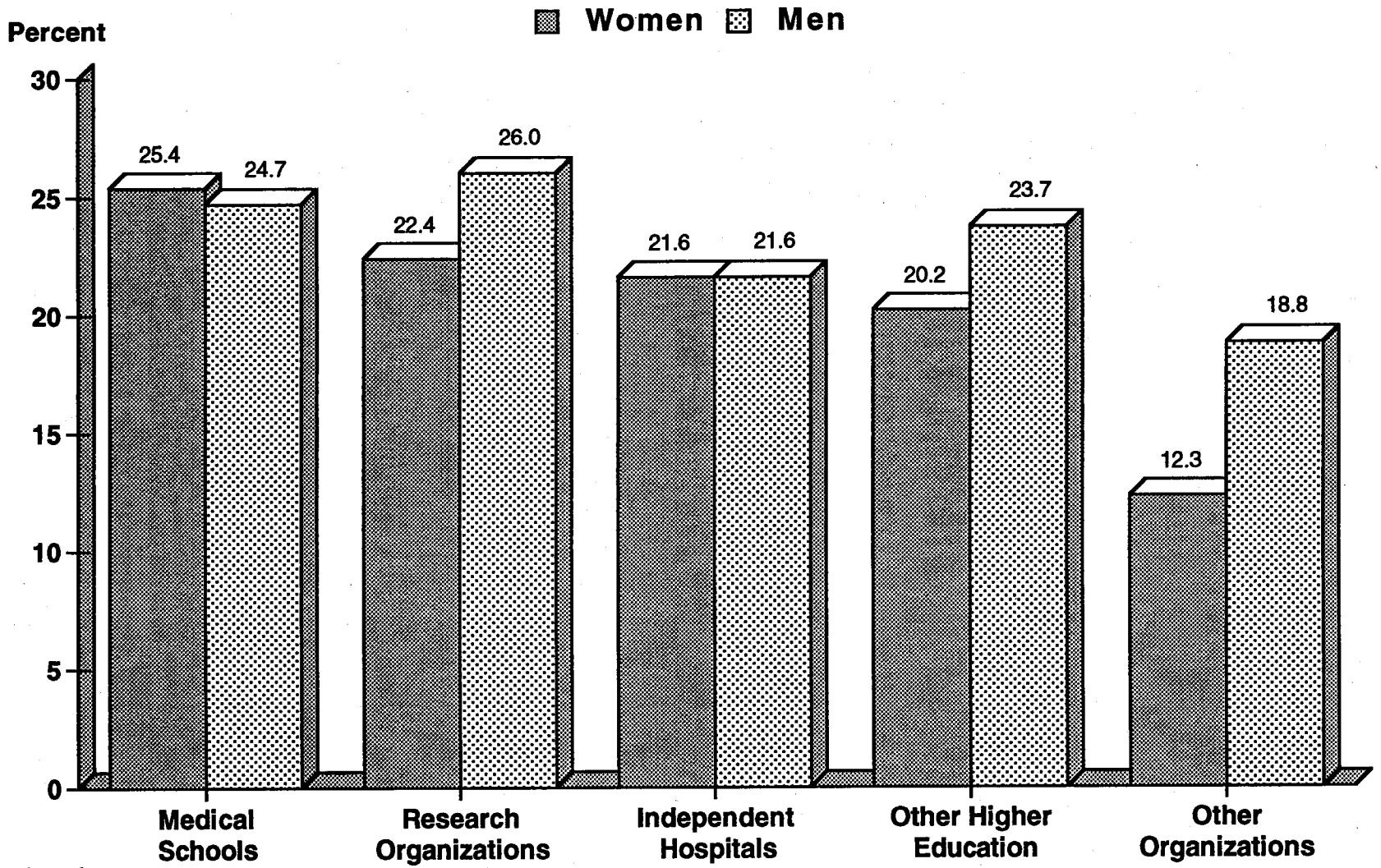
For the last 10 years, the percentage of competing RPG awards to women has been about one percent less than the percentage of competing RPG applications from women. From FY 1992 levels, the number of competing RPG's funded increased for women (1,123 vs. 1,091) but declined considerably for men (4,102 vs. 4,600). Proportionally, the number of awards to women increased by 2.9 percent from FY 1992, while the number of awards to men decreased by 10.8 percent for the same period. During the FY 1984 through FY 1993 period, the number of RPG awards decreased by 15 percent for men, but increased by 34 percent for women.

Number of Competing Research Project Grant Applications and Awards*, by Gender, Fiscal Years 1984-1993

		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Appls. Reviewed	Male	14,689	16,129	15,726	15,004	15,863	15,732	16,186	15,687	15,535	16,788
	Female	2,821	3,052	3,186	3,374	3,643	3,727	3,911	3,753	3,979	4,883
	Total	17,823	19,537	19,231	18,801	20,058	19,968	20,709	19,936	20,486	22,225
Awards	Male	4,844	5,505	5,173	5,511	5,186	4,499	3,945	4,679	4,600	4,102
	Female	845	934	997	1,062	1,088	1,055	963	1,039	1,091	1,123
	Total	5,758	6,523	6,268	6,740	6,453	5,709	5,087	5,858	6,090	5,344

*Excludes SBIR's; total includes gender nonresponse.

Success Rates for NIH Competing Research Project Grant Applications* by Kind of Organization, FY1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender infromation is not requested.
Source: NIH, DRG, ISB, SAES

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2.2 Number of Competing RPG Awards and Success Rates by Kind of Organization

Applicants from medical schools and other higher education institutions received the highest proportion of competing RPG awards during FY 1993. Medical school applicants received 2,837, or 53 percent, of RPG awards; other higher education applicants received 1,541 awards, or 29 percent, of the total number awarded.

In FY 1993, the success rate for competing RPG awards was highest, 25.0 percent, for research organizations. The lowest success rate came from applicants of other organizations, 16.4 percent. The success rate for women from medical schools was 25.4 percent compared to 24.7 for men, a difference of only 0.7 percent. Medical schools represented the only kind of organization in which women had a higher success rate than men. The maximum success rate disparity, 6.5 percent, occurred in other organizations.

Number of Competing RPG Awards by Gender and Kind of Organization, Fiscal Year 1993

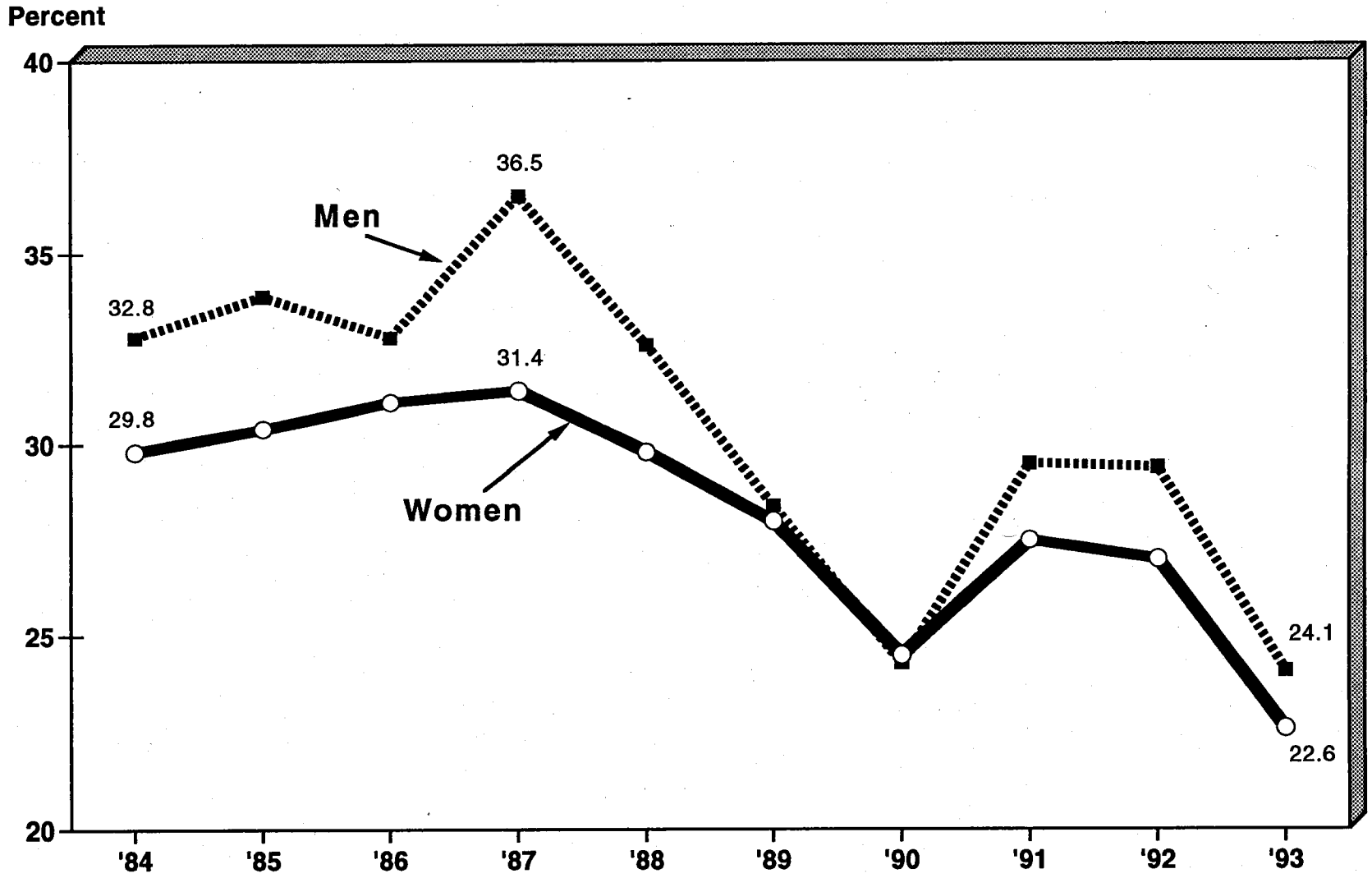
	Other Higher Education	Research Organizations	Independent Hospitals	Other Organizations	Medical Schools
Male	1,167	350	305	73	2,208
Female	349	92	98	20	563
Total*	1,541	452	418	96	2,837

Success Rate for Competing RPG Awards by Gender and Kind of Organization, Fiscal Year 1993

	Other Higher Education	Research Organizations	Independent Hospitals	Other Organizations	Medical Schools
Male	23.7	26.0	21.6	18.8	24.7
Female	20.2	22.4	21.6	12.3	25.4
Total*	22.6	25.0	21.7	16.4	24.7

*SBIR's are excluded; total includes gender nonresponse.

Success Rates for NIH Competing Research Project Grants* by Gender, FY1984-1993



Number of Applications:	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93
	17,823	19,537	19,231	18,801	20,058	19,968	20,709	19,936	20,486	22,255

*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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2.3 Success Rates for Competing Research Project Grants

In FY 1993, the success rate for competing RPG's was 22.6 percent for women and 24.1 percent for men, a difference of 1.5 percent. From FY 1992 to FY 1993, success rates fell for both men and women. Overall, success rates declined by 8.6 percent from FY 1984 to FY 1993, with FY 1993 registering the lowest rates for both men and women over the 10-year period.

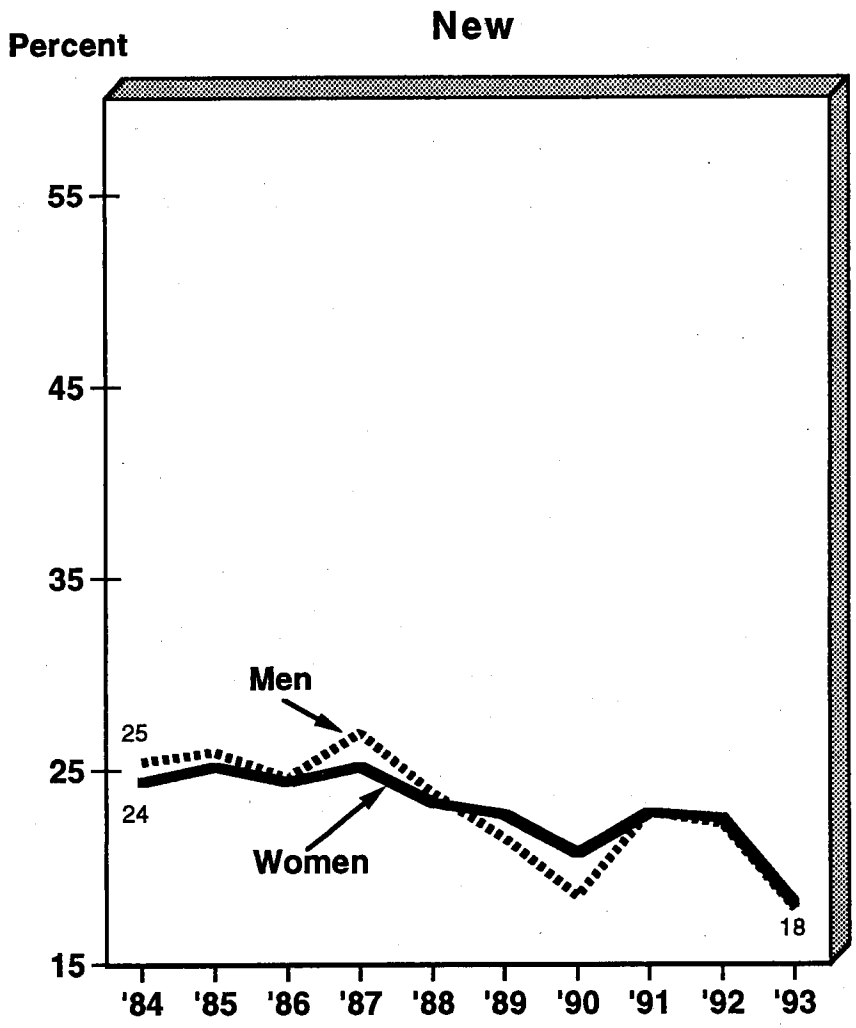
In FY 1984, women submitted 16.1 percent of the competing RPG applications reviewed and received 14.9 percent of the RPG awards. For FY 1993, competing RPG applications from women and awards to women increased to 22.5 and 21.5 percent, respectively.

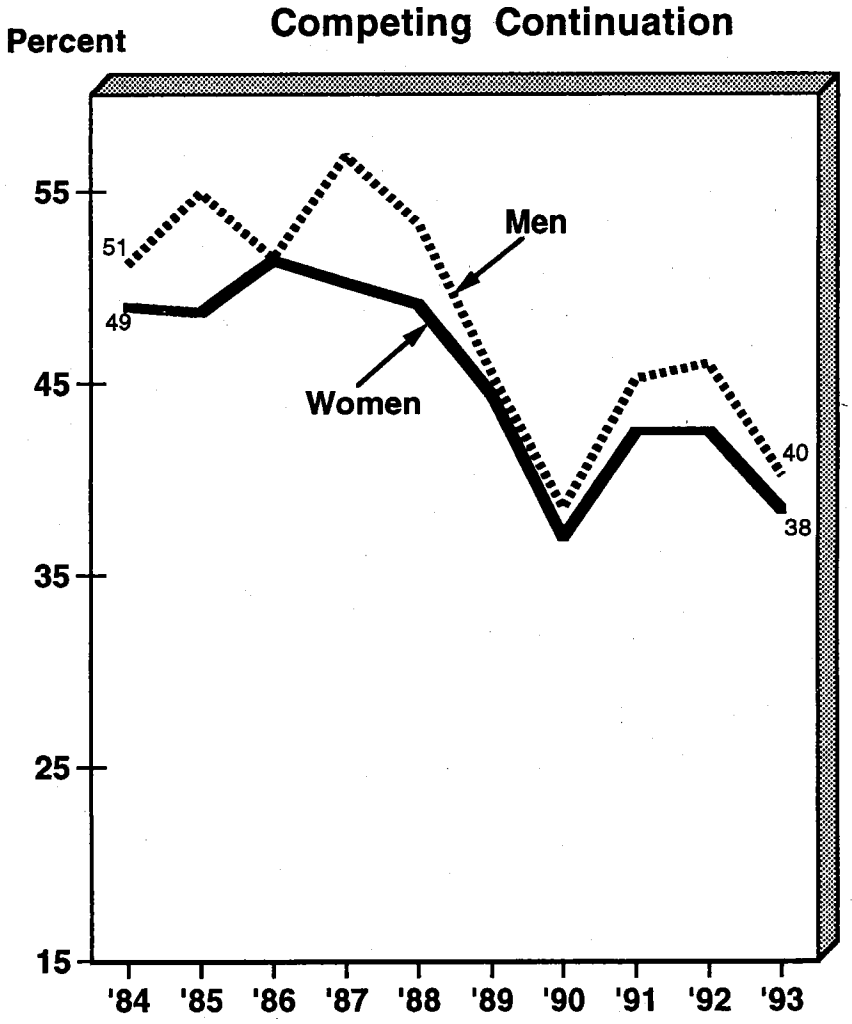
Success Rate for Competing Research Project Grants* by Gender, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	32.8	33.9	32.8	36.5	32.6	28.4	24.3	29.5	29.4	24.1
Female	29.8	30.5	31.1	31.4	29.8	28.0	24.5	27.5	27.0	22.6
Total	32.2	33.2	32.5	35.7	32.1	28.4	24.5	29.1	29.5	23.6

* SBIR's are excluded; total includes gender nonresponse.

Success Rates for NIH Competing Research Project Grants* by Type of Application, FY1984-1993





*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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2.4 Success Rates for Competing RPG's by Type of Application

The success rates for male and female applicants have become nearly identical for new (Type 1) awards in FY 1993. In FY 1993, the success rates for new competing RPG's were 18.1 percent for women and 17.8 percent for men, a difference of 0.3 percentage point. In FY 1993, the success rates for competing continuation (Type 2) RPG's were 38.4 percent for women and 40.2 percent for men, a difference of 1.8 percentage points.

From FY 1984 levels, the number of new competing RPG awards increased for women from 541 to 703 but declined for men, 2,663 to 2,167. From FY 1984 through FY 1993, the number of competing continuations decreased for men, 2,181 to 1,935, but increased for women from 304 to 420.

Success Rate for New (Type 1) Competing Research Project Grants* by Gender, Fiscal Years 1984 - 1993

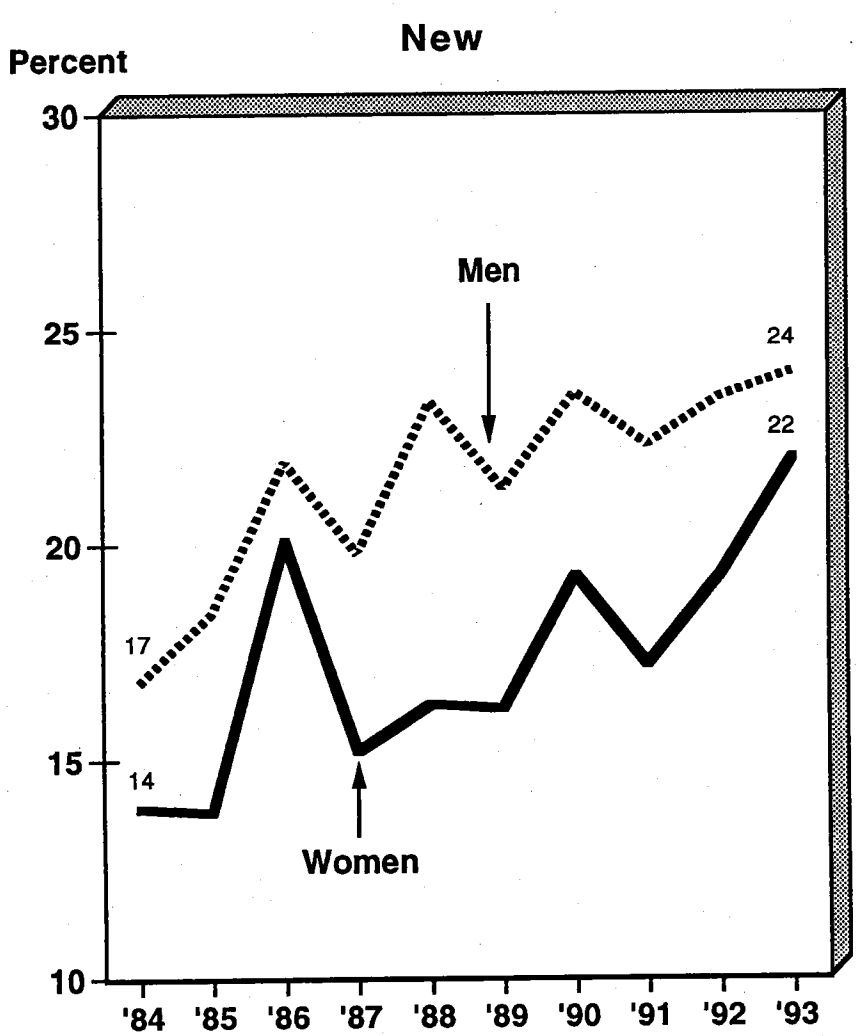
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	25.4	25.9	24.6	26.9	23.8	21.5	18.5	22.8	22.2	17.8
Female	24.4	25.2	24.4	25.2	23.3	22.7	20.7	22.8	22.5	18.1

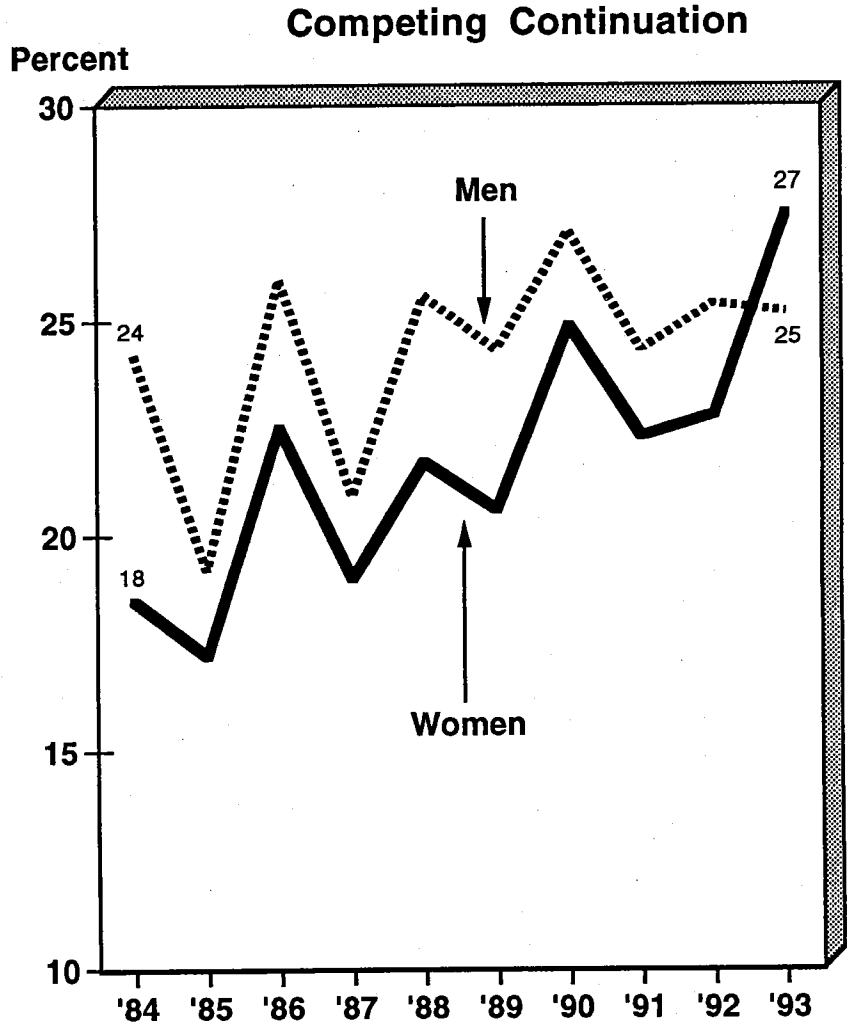
Success Rate for Competing Continuation (Type 2) Research Project Grants* by Gender, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	51.2	54.9	51.5	56.8	53.3	45.5	38.5	45.2	46.0	40.2
Female	49.0	48.7	52.4	50.2	49.1	44.4	37.0	42.5	42.5	38.4

*Excludes SBIR's.

Percent Reduction in Direct Cost Requested for NIH Competing Research Project Grant Awards by Type and Gender, FY1984-1993





*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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2.5 Percent Reduction in Direct Cost Requested by Award Type

Generally, budget requests from women are reduced less than budget requests from men for both new and competing continuation RPG awards. Women generally request less funding than men, and smaller requests generally result in smaller reductions from the amount requested.

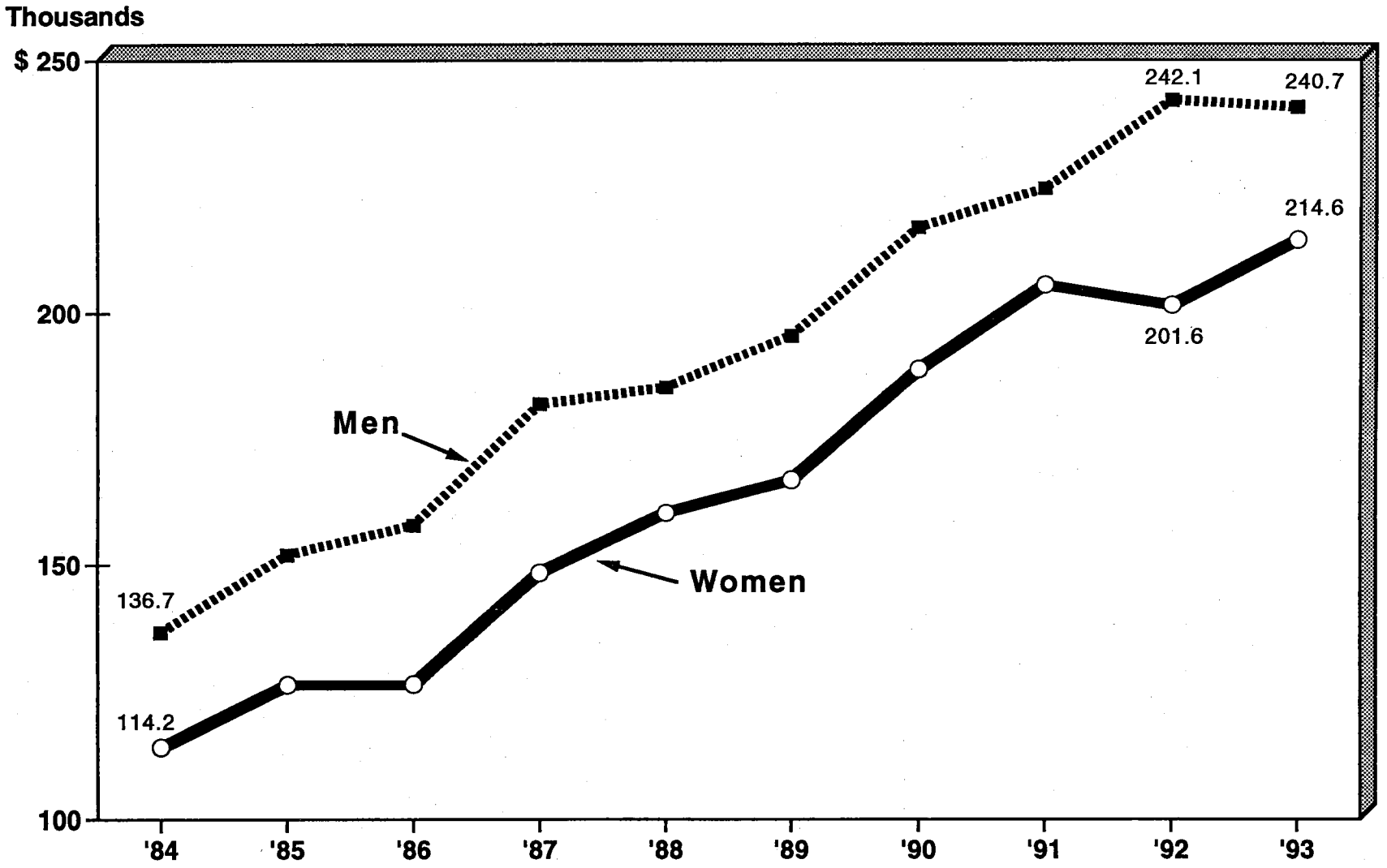
Overall, about 90 percent of competing RPG awards received less funding than the amount requested. For new awards, the percentage reductions ranged from 13 to 22 percent for women and 16 to 24 percent for men during the FY 1984-1993 period. The reductions for competing continuation awards were slightly larger, from 17 to 27 percent for women and 19 to 27 percent for men.

Percent Reduction in Direct Cost Requested for Competing Research Project Grant Awards*, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
New Awards										
Male	16.8	18.4	21.9	19.8	23.3	21.3	23.5	22.3	23.4	24.0
Female	13.9	13.8	20.1	15.2	16.3	16.2	19.3	17.2	19.3	22.0
Competing Continuations										
Male	24.2	19.2	26.0	20.9	25.6	24.3	27.1	24.3	25.4	25.2
Female	18.5	17.2	22.5	19.0	21.7	20.6	24.9	22.3	22.8	27.5

*Excludes supplements, carryovers and SBIR's.

Average Size of Awards for NIH Competing Research Project Grants* by Gender, FY1984-1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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2.6 Average Dollar Size of Competing RPG Awards

For both men and women, the average competing research project grant (RPG) award has increased since FY 1984 -- by 88 percent for women and 76 percent for men. The difference in the average amount of award, by gender, ranged from approximately $19.1 thousand in FY 1991 to $40.5 thousand in FY 1992; for FY 1993 this difference was $26.1 thousand. Women's competing RPG awards averaged $214.6 thousand in FY 1993; men's averaged $240.7 thousand.

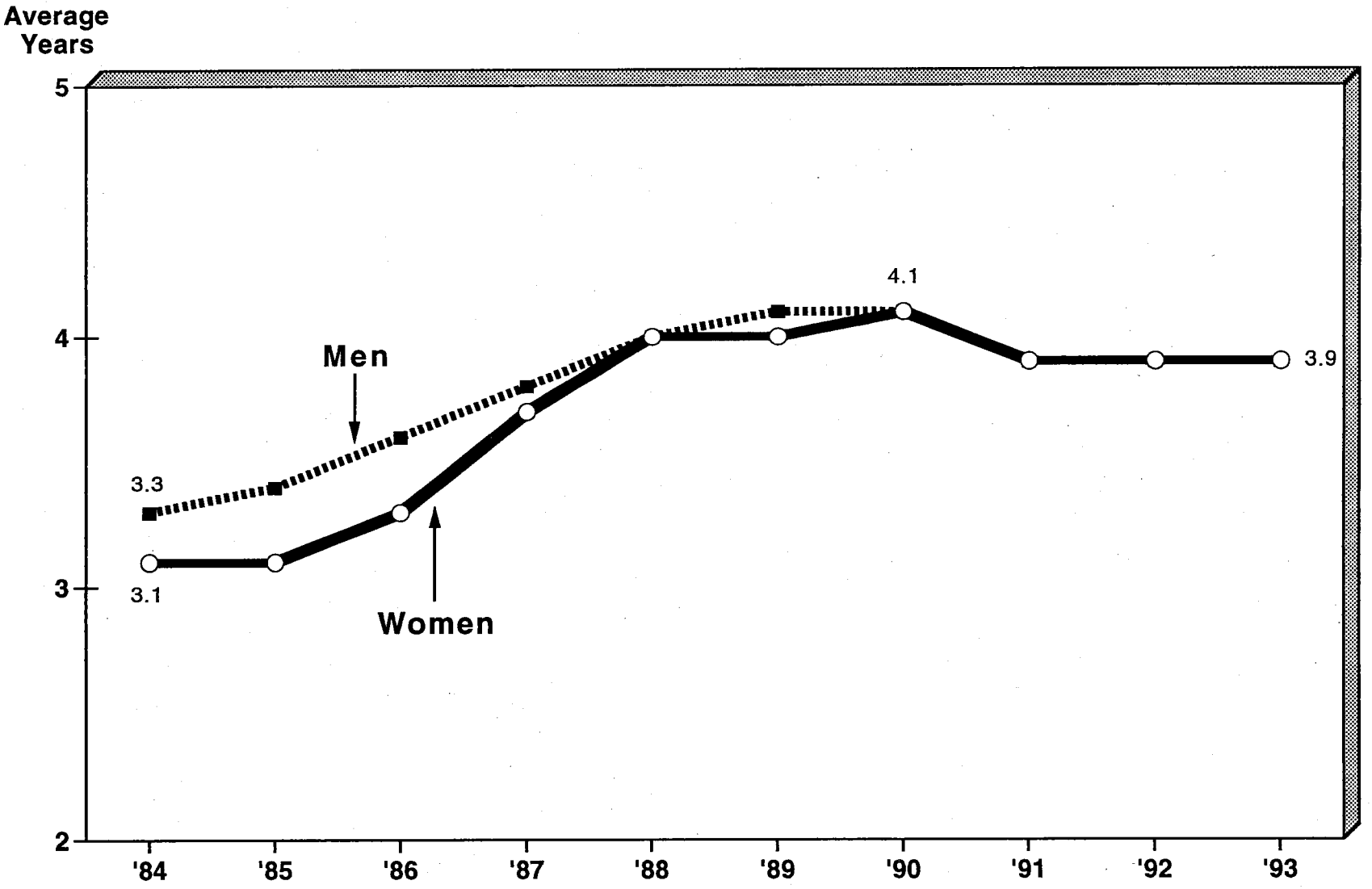
As previously mentioned, Small Business Innovation Research (SBIR) grants are excluded from average award calculations because the application packages for SBIR grants do not contain requests for gender information.

Average Dollar Amount (in thousands) of Research Project Grant Awards* by Gender, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	136.7	152.0	157.9	181.9	185.2	195.5	217.1	224.8	242.1	240.7
Female	114.2	126.4	126.5	148.5	160.4	167.0	188.8	205.7	201.6	214.6
All	133.4	148.1	152.2	175.9	180.0	190.0	211.1	220.3	235.1	235.8

*Excludes SBIR's; "All" includes gender nonresponse.

Average Length of Award for NIH Competing Research Project Grants* by Gender, FY1984-1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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2.7 Average Length of Competing RPG Awards

The average term of NIH support for competing research project grants was longer in FY 1993 than in FY 1984, increasing from 3.1 to 3.9 years for women and from 3.3 to 3.9 years for men. However, the average length of these awards has declined approximately 0.2 years for both women and men from the FY 1990 peak. The difference in average length of award for men and women has been within 0.06 of a year since FY 1988. This trend continued in FY 1993; the average length for men and women was approximately the same at 3.9 years.

The duration of an award affects the total value or size of a grant, the amount of time researchers must spend developing and writing applications for renewals, the length of time in which longitudinal data can be collected or observations made, and many detailed features of a research program.

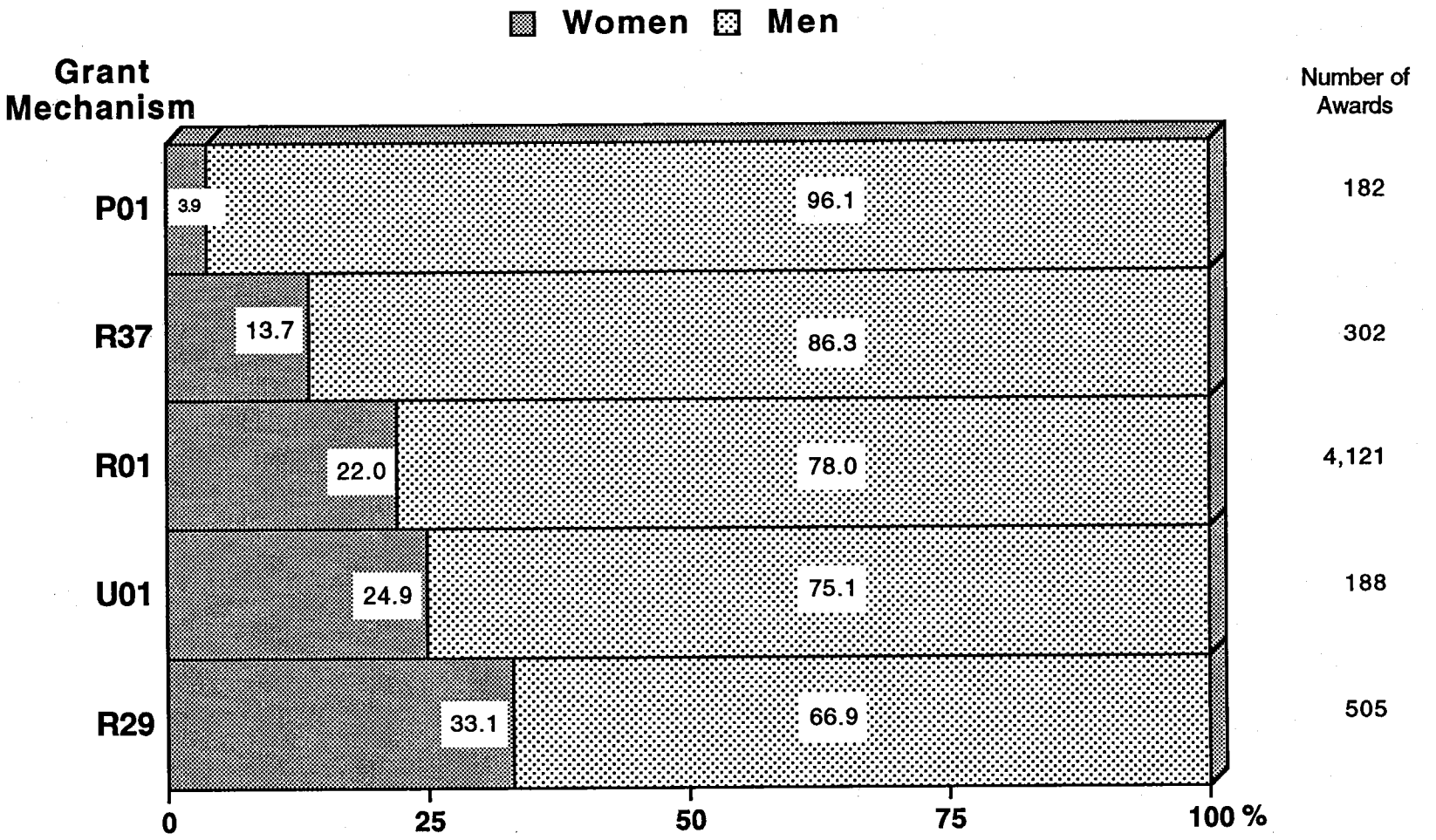
In general, increased award lengths result in decreased availability of funds for new and competing continuation awards in future years. This happens because longer awards absorb a greater proportion of future year funds unless noncompeting award expenditures receive a commensurate reduction.

Average Duration of Awards* (in years) for Competing Research Project Grants by Gender
Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	3.31	3.37	3.62	3.82	4.04	4.08	4.13	3.90	3.91	3.94
Female	3.13	3.14	3.33	3.66	3.98	4.02	4.13	3.94	3.89	3.90
All	3.29	3.33	3.57	3.80	4.03	4.07	4.13	3.91	3.92	3.93

*Supplements and SBIR's are excluded; "All" includes gender nonresponse.

Percent Distribution of Total Dollars Awarded for Selected NIH Competing Research Project Grants* by Gender, FY1993



*Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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2.8 Distribution of Competing RPG Awards by Grant Mechanism

For FY 1993, traditional research projects (R01's) accounted for the largest number of competing research project grants awarded to women. Women received 862 R01's, or 21.3 percent of the total R01 awards, excluding gender nonresponse applicants. These R01's comprised approximately 76 percent of the 1,123 RPG's awarded to women.

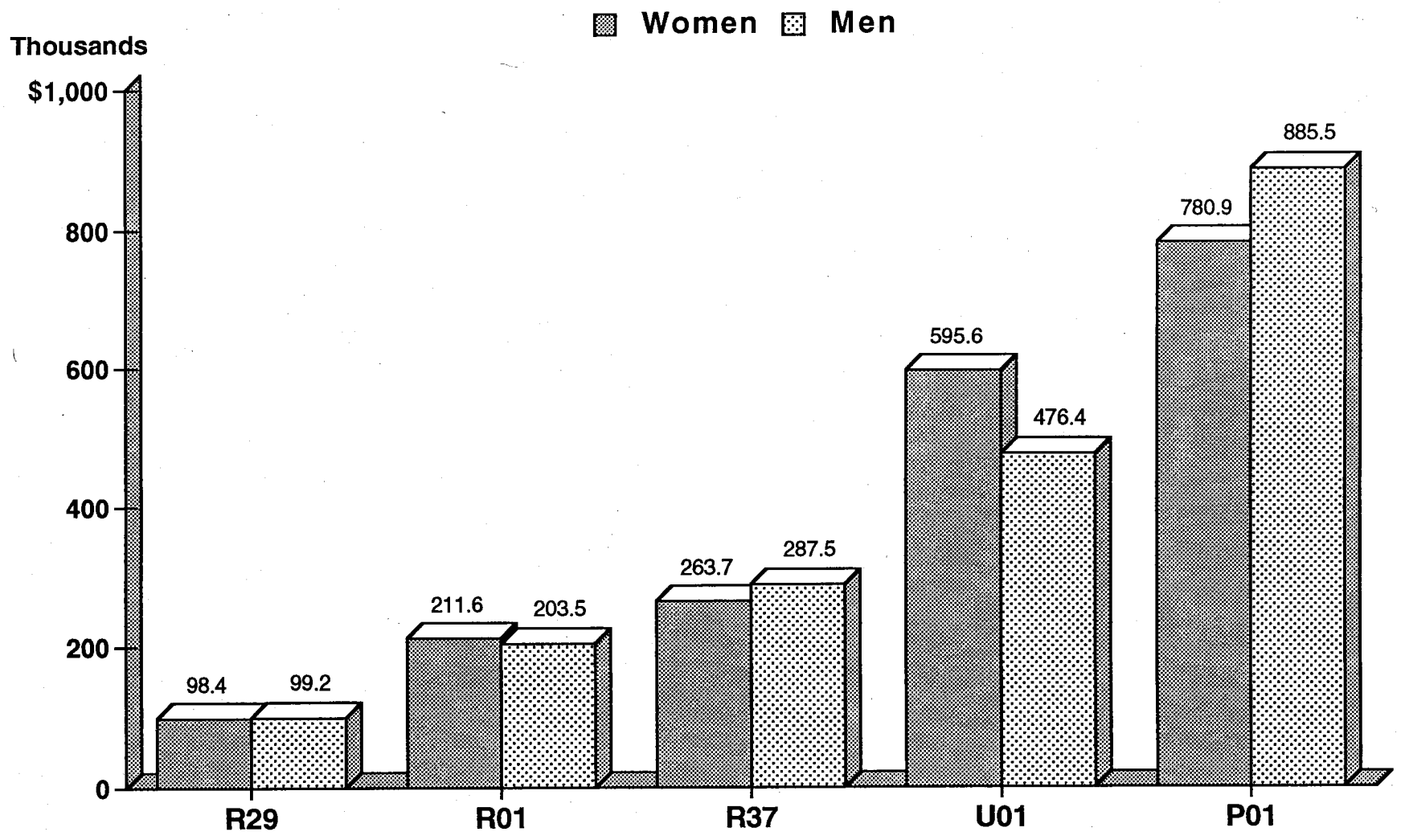
In FY 1993, the largest percentage of awards to women from a single grant mechanism (excluding nonresponse and R55 awards) was 33.3 percent. (See page 85 for a discussion of R55 awards.) This mechanism was the R29, i.e., the First Independent Research Support and Transition (FIRST) award, which provides initial research support for newly independent investigators. In FY 1993, women and men received 163 and 327 FIRST awards, respectively.

Number of Competing RPG Awards* by Mechanism and Gender, Fiscal Year 1993

	P01	R01	R29	R35	R37	R55	U01	U19	Total
Male	172	3,183	327	17	248	15	139	1	4,102
Female	8	862	163	1	43	9	37	0	1,123
Total	182	4,121	505	18	302	27	188	1	5,344

* Total includes gender nonresponse.

Average Size of Awards for NIH Competing Research Project Grants by Grant Mechanism and Gender, FY1993



Source: NIH, DRG, ISB, SAES

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2.9 Total Dollar Amount and Average Size of Competing RPG Awards by Grant Mechanism

R01 awards accounted for the highest proportion of competing research project grant dollars awarded for both women ($182.4 million) and men ($647.9 million). From FY 1991, this represented an increase of 31 percent for women (from $139.3 million) but a decline of slightly more than one percent (from $656.8 million) for men. After R01 awards, U01 awards provided the next largest FY 1993 dollar amount for women ($21.9 million), P01 awards for men ($152.3 million).

The average dollar amount for competing RPG awards in FY 1993 was higher for women than for men for R01's, R35's and U01's. For the awards funded most frequently, R01's, the average amounts were $211.6 thousand for women vs. $203.5 thousand for men. Award sizes were most disparate for research project cooperative agreements (U01's), in which women averaged $119 thousand more than men, and program projects (P01's), in which men averaged $105 thousand more than women.

Total Dollar Amount* (millions) of Competing Research Project Grant Awards by Gender and Grant Mechanism, FY 1993

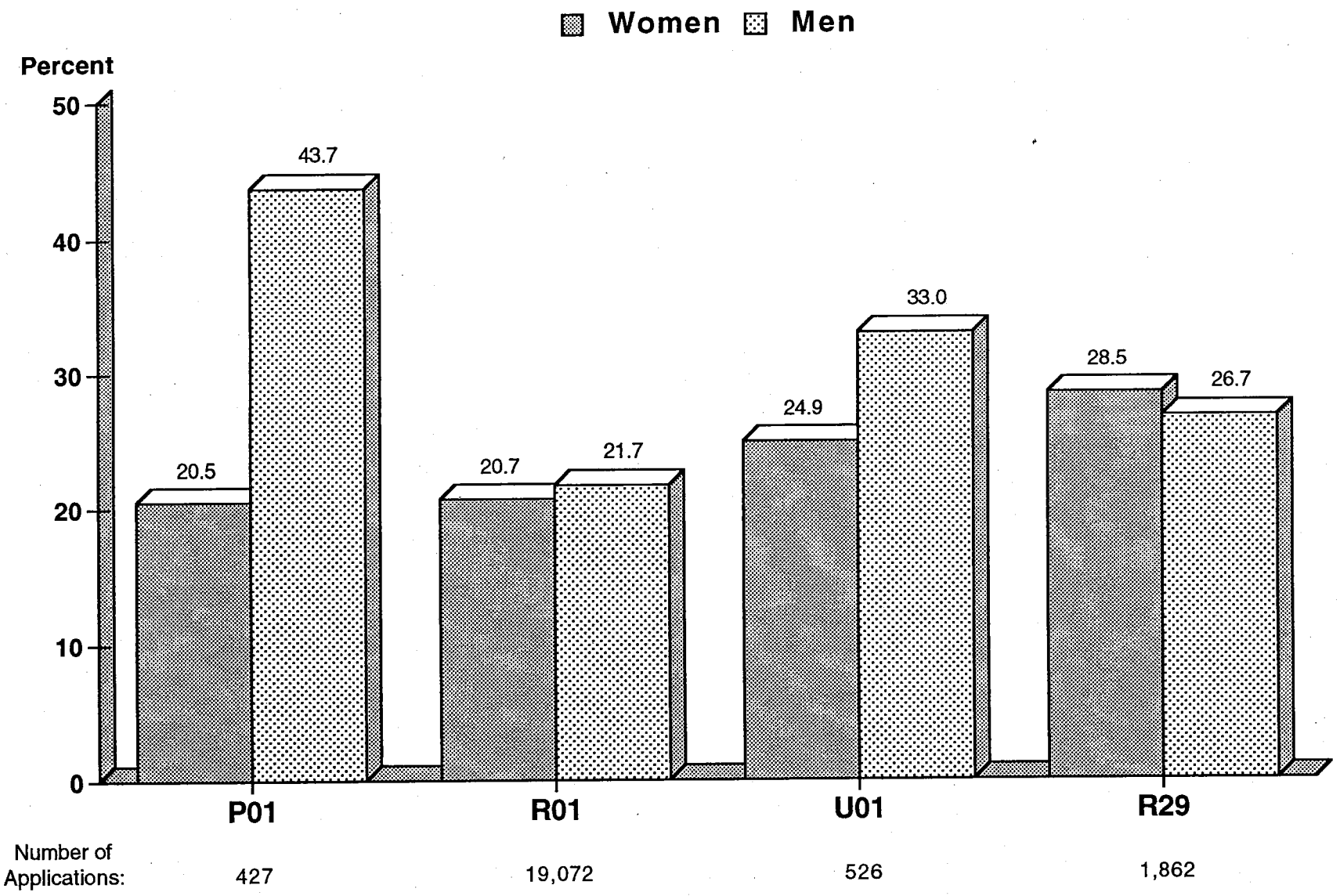
	P01	R01	R29	R35	R37	R55	U01
Male	152.3	647.9	32.5	13.0	71.3	3.4	66.3
Female	6.2	182.4	16.0	1.0	11.3	2.1	21.9
Total	160.4	846.4	50.1	14.0	86.2	6.1	96.2

Average Dollar Amount* (thousands) of Competing Research Project Grant Awards by Gender and Grant Mechanism, FY 1993

	P01	R01	R29	R35	R37	R55	U01
Male	885.5	203.5	99.2	766.0	287.5	227.7	476.4
Female	780.9	211.6	98.4	963.1	263.7	227.7	595.6
Total	881.3	205.4	99.3	776.9	285.7	227.7	510.4

*Totals include gender nonresponse.

Success Rates for NIH Competing Research Project Grants by Grant Mechanism and Gender, FY1993



Note: R37 had a success rate of 93.5 for women and 91.9 for men.
Source: NIH, DRG, ISB, SAES

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2.10 Success Rates for Competing RPG Applicants by Grant Mechanism

In FY 1993, success rates varied little by gender for those activities accounting for the majority of competing RPG award dollars, R01's and R29's. For these grant mechanisms, success rates among men and women varied by 1.8 percentage points or less.

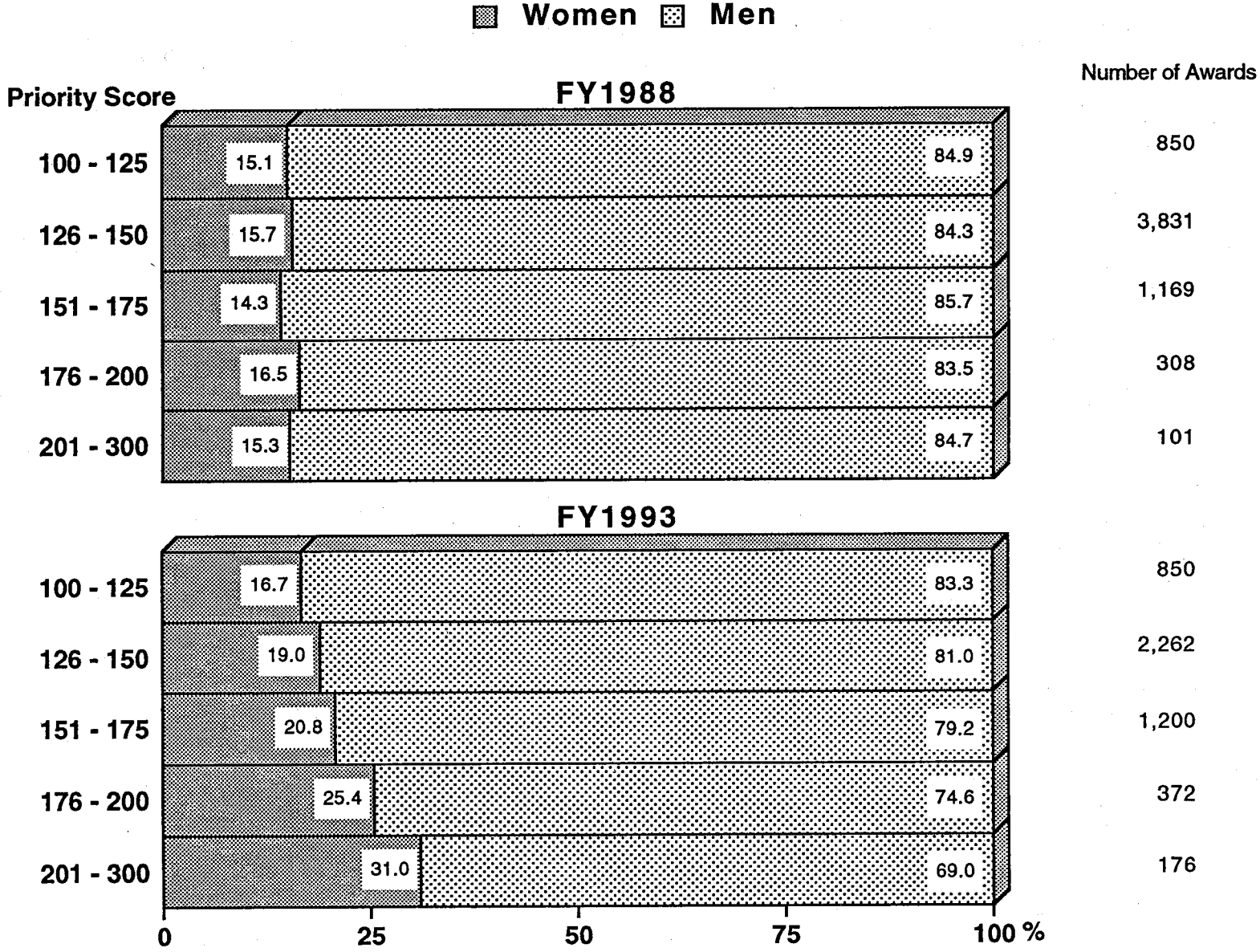
Success rates differed considerably by gender for U01 and P01 awards; men had considerably higher success rates for these mechanisms in FY 1993. Method to Extend Research in Time (MERIT, R37) awards are initiated and reviewed as R01's. Program staff and/or members of the National Advisory Councils/Boards identify candidates for the MERIT award during the course of review of competing research grant applications. This distinction accounts for the high success rates of MERIT awards versus those of other grant mechanisms.

P01, R01, R29, R37, and U01
Competing Research Project Grant Mechanisms, FY 1993

Grant Activity	Gender	Number of Awards	Success Rate
R01	Male	3,183	21.7
	Female	862	20.7
R29	Male	327	26.7
	Female	163	28.5
U01	Male	139	33.0
	Female	37	24.9
P01	Male	172	43.7
	Female	8	20.5
R37*	Male	248	91.9
	Female	43	93.5

* MERIT awards (R37) differ from the other grant activities; see text for explanation.

Percent of Total Dollars Awarded for NIH Competing Research Projects Grants* by Priority Score Interval and Gender, FY1988 and FY1993



*Excludes nonresponses and SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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2.11 Number of Competing RPG Applications Reviewed and Total Dollars Awarded by Priority Score Interval

The highest number of applications reviewed in FY 1993 received priority scores in the range of 201-300 (7,246), of which only 176 received funding. Slightly more than half of the competing RPG awards (3,112) were to applicants whose priority scores were between 126 and 150.

Women received a larger percentage of the competing RPG dollars awarded in FY 1993 than in FY 1988 for all priority score intervals shown below. Women applicants whose scores fell in the 126-150 interval received 19.0 percent of the competing RPG dollars awarded in FY 1993, compared with 15.7 percent in FY 1988.

Number of Competing Research Project Grant Applications Reviewed by Gender and Priority Score Interval, FY 1988 and FY 1993

	Fiscal Year 1988					Fiscal Year 1993				
	100-125	126-150	151-175	176-200	201-300	100-125	126-150	151-175	176-200	201-300
Male	724	3,482	2,058	1,556	4,436	686	2,424	2,111	1,777	5,449
Female	166	719	433	352	976	182	632	570	486	1,612
Total	920	4,311	2,555	1,948	5,564	892	3,112	2,748	2,314	7,246

Average Dollar Size of Awards* (in thousands) for Competing Research Project Grants by Gender and Priority Score Interval, FY 1988 and FY 1993

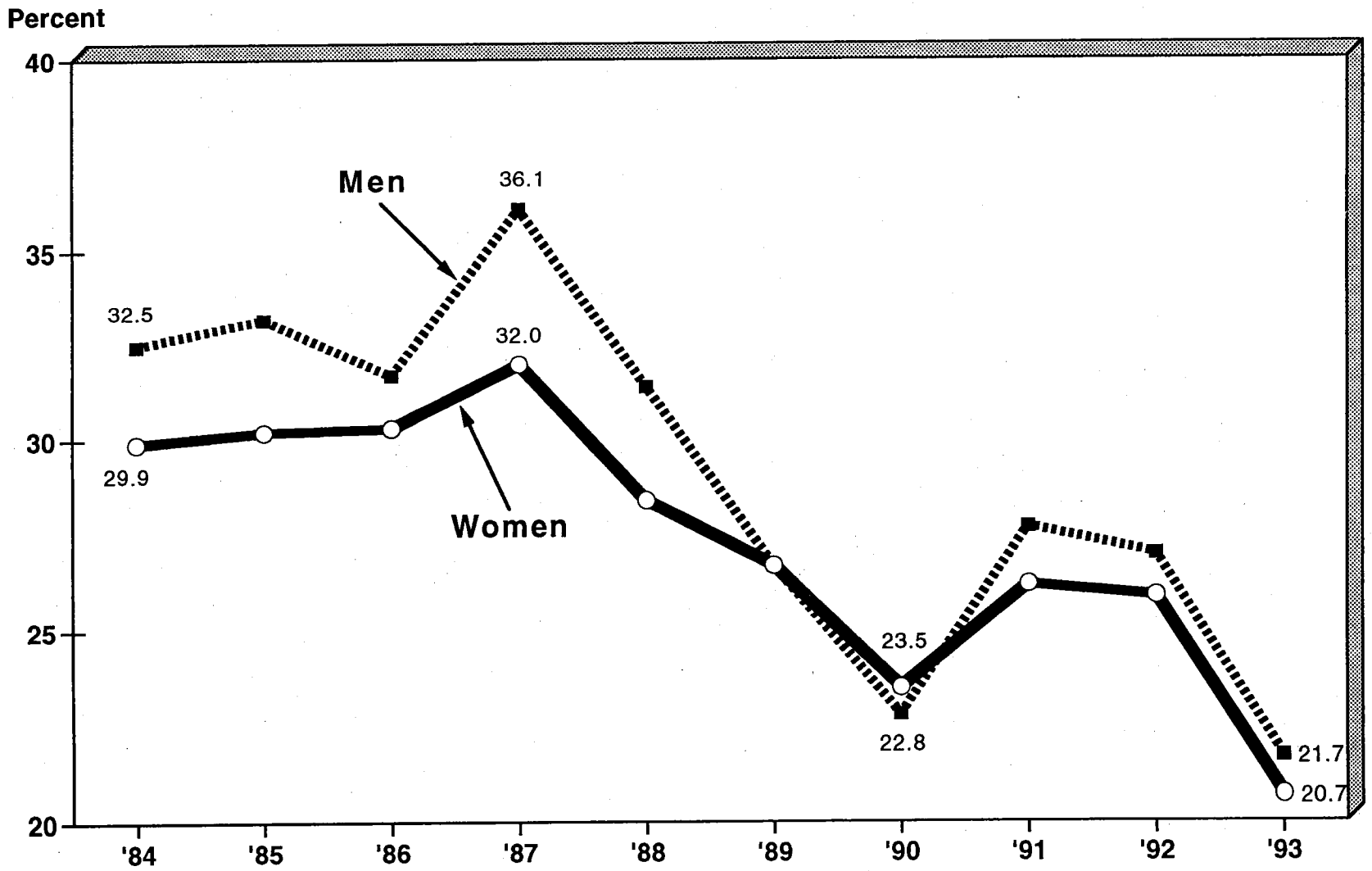
	Fiscal Year 1988					Fiscal Year 1993				
	100-125	126-150	151-175	176-200	201-300	100-125	126-150	151-175	176-200	201-300
Male	208	176	189	180	282	295	237	209	206	203
Female	167	160	147	179	194	220	214	186	223	212
Total	200	172	181	179	262	279	233	203	208	214

*Excludes SBIR's; total includes gender nonresponse award recipients.

3. Traditional Research Project Grants (R01) and First Independent Research Support and Transition Awards (R29)

3.1 Success Rates for Competing Traditional Research Project Grants (R01)
3.2 Applications Reviewed and Success Rates for R01 Grants by Geographical Region
3.3 Success Rates for Competing R01 Grants by Type of Application
3.4 Percent Reduction in Direct Cost Requested for Competing R01 by Type of Award
3.5 Success Rates for Competing R01 Grants by First Time Applicants
3.6 Success Rates for Competing First Independent Research Support and Transition (FIRST, R29) Applicants

Success Rates for NIH Competing Traditional Research Project Grants (R01) by Gender, FY1984-1993



Number of Applications:	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93
	16,113	17,553	17,150	15,733	16,790	17,149	17,858	17,066	17,450	19,072

Source: NIH, DRG, ISB, SAES

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3.1 Success Rates for Competing Traditional Research Project Grants (R01)

Competing traditional research project grant (R01) success rates have been lower for women than for men in all years except for FY 1989 and FY 1990. In FY 1993, the success rate for women receiving R01's was 20.7 percent, 21.7 percent for men. R01 success rates for men and women dropped in FY 1993 to the lowest levels of the FY 1984-1993 period.

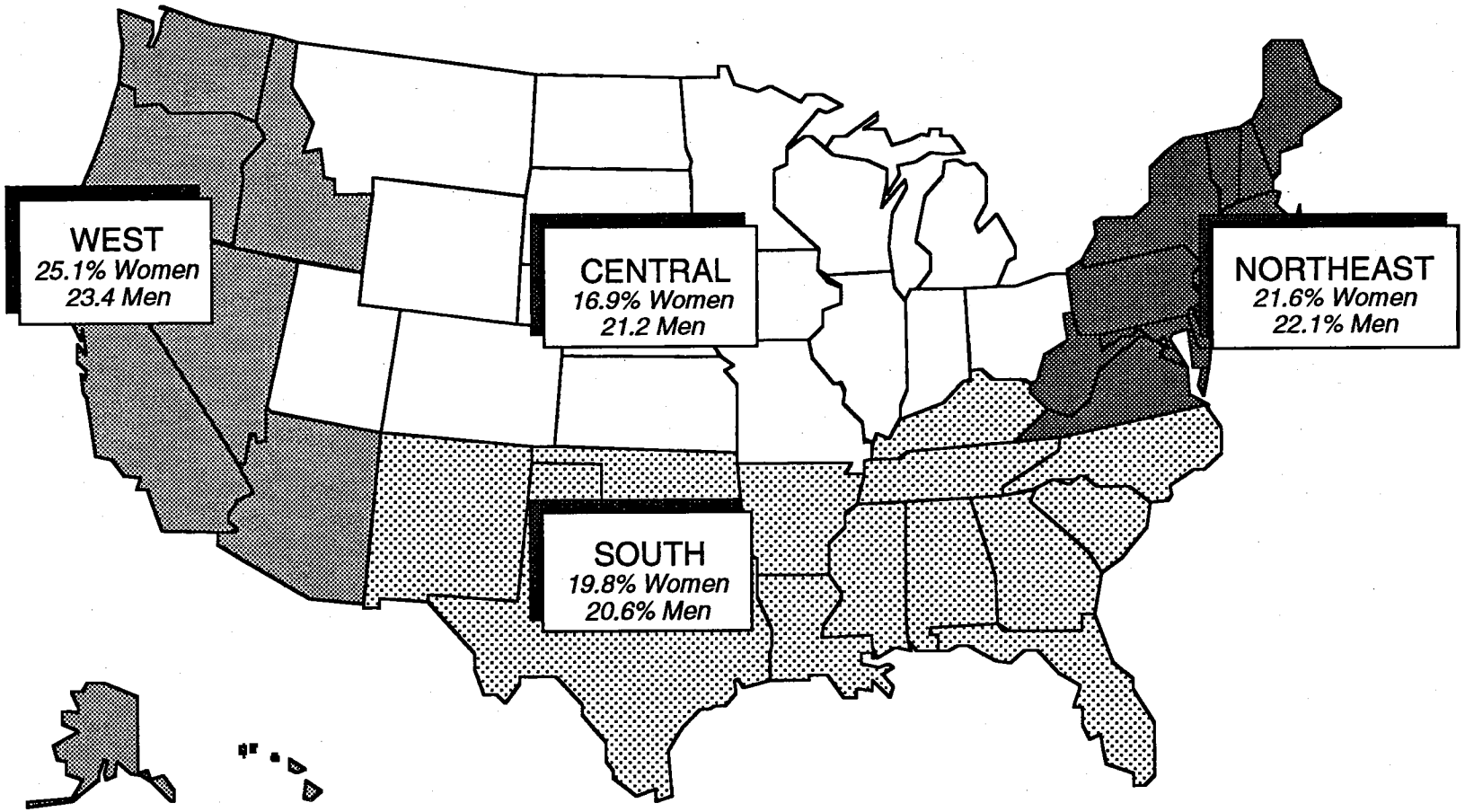
The R01 grants comprise the majority of RPG awards. Thus, trends in success rates for R01's (lower since the FY 1987 peak) are similar to the overall competing RPG success rate trend. The increase over the past several years in the average length of support for competing research project grants is an important factor contributing to this reduction in success rates.

Success Rates for Competing Traditional Research Project Grant (R01) Awards by Gender, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	32.5	33.2	31.7	36.1	31.4	26.7	22.8	27.7	27.0	21.7
Female	29.9	30.2	30.3	32.0	28.4	26.7	23.5	26.2	25.9	20.7
Total	31.9	32.5	31.4	35.4	30.7	26.7	23.0	27.4	27.1	21.3

*Excludes SBIR's; total includes gender nonresponse.

Success Rates for NIH Competing Traditional Research Project Grants (R01) by PHS Geographical Region and Gender, FY1993



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Source: NIH, DRG, ISB, SAES

3.2 Applications Reviewed and Success Rates for R01 Grants by Geographical Region

In FY 1993, the number of competing R01 applications reviewed by geographical region was highest in the Northeast region with 5,265 and 1,687 applications reviewed, from men and women respectively. The greatest portion of competing R01 funds went to the Northeast, followed by the Central, West, and South regions.

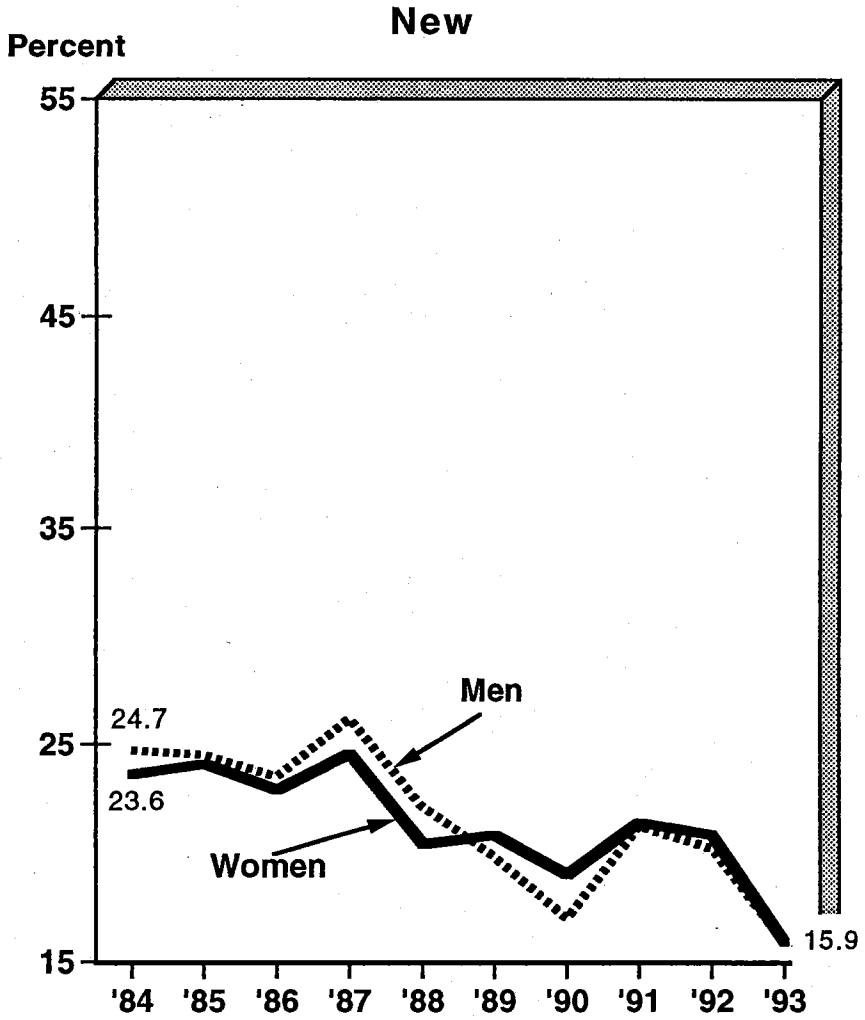
Investigators from the West had the highest success rates of investigators in any of the four geographic regions shown below--25.1 percent for women and 23.4 percent for men. The West was the only region in FY 1993 where the competing R01 success rate for women surpassed that for men. The only geographic area with a considerable difference in success rates was the Central, where the success rates were 21.2 for men and 16.9 for women. The success rates in the Northeast region were 22.1 for men, 21.6 for women. Similarly, success rates for men and women investigators differed minimally for the South and West regions in FY 1993.

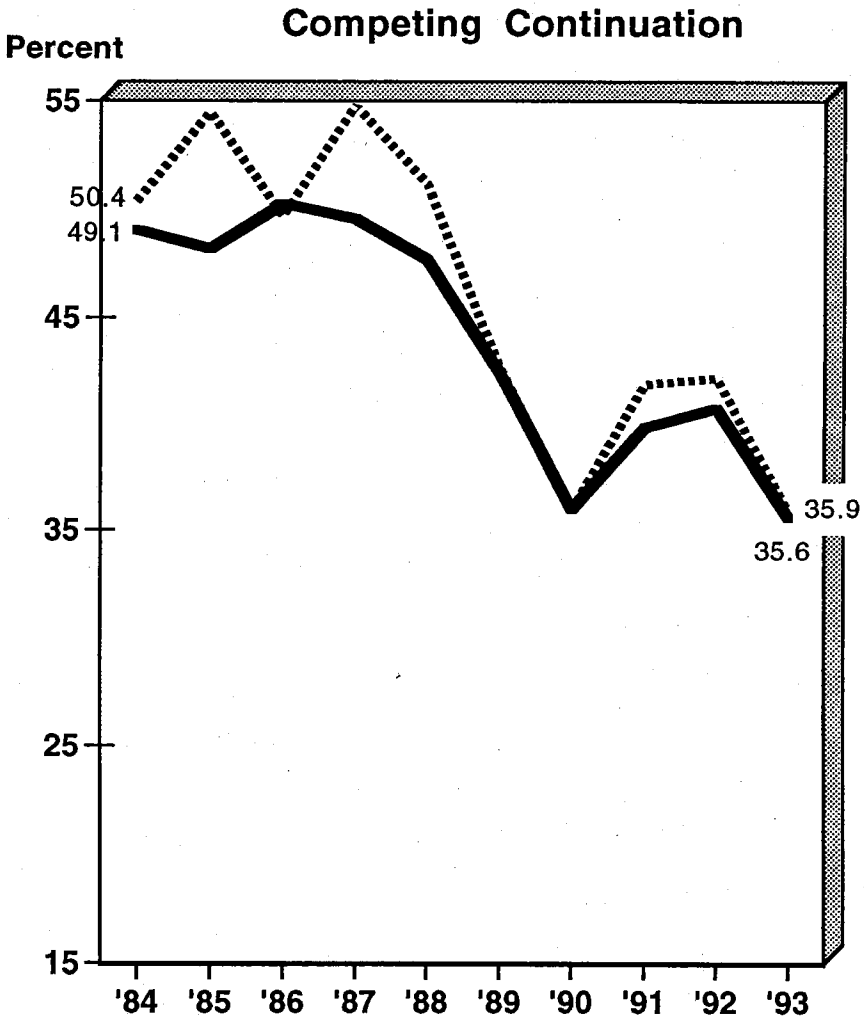
Number of Applications Reviewed and Success Rates for Competing Traditional Research Project Grants (R01's), by Gender and Geographical Region*, FY 1993

	Central		Northeast		South		West	
	Number	Success Rates	Number	Success Rates	Number	Success Rates	Number	Success Rates
Male	3,415	21.2	5,265	22.1	3,022	20.6	2,509	23.4
Female	884	16.9	1,687	21.6	737	19.8	724	25.1
Total	4,389	20.3	7,147	21.9	3,855	20.2	3,315	23.5

*Includes domestic R01 applications and awards only; total includes gender nonresponse.

Success Rates for NIH Competing Traditional Research Project Grants (R01) by Type and Gender, FY1984-1993





Source: NIH, DRG, ISB, SAES

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3.3 Success Rates for Competing R01 Grants by Type of Application

New (Type 1), competing traditional research project grant (R01) success rates had been lower for women than for men in the years from FY 1984 through FY 1988. However, since FY 1989, women have had the same or higher success rates than men for new R01 applications. In FY 1993, the success rate for both men and women was 15.9 percent, which represented the lowest success rate of the FY 1984-1993 period.

For competing continuation (Type 2) R01 grants, success rates have generally been slightly lower for women than for men during the FY 1984 through FY 1993 period. Since FY 1989, success rates for women have been within 2.0 percentage points of those for men for Type 2 R01 applications. In FY 1993, the success rates for men and women were approximately the same, 35.9 and 35.6, respectively. These rates, along with comparable FY 1990 data, represent the lowest success rates of the FY 1984-1993 period.

Success Rates for Competing Traditional Research Project Grant (R01) Awards by Gender, Fiscal Years 1984 - 1993

New Awards (Type 1)

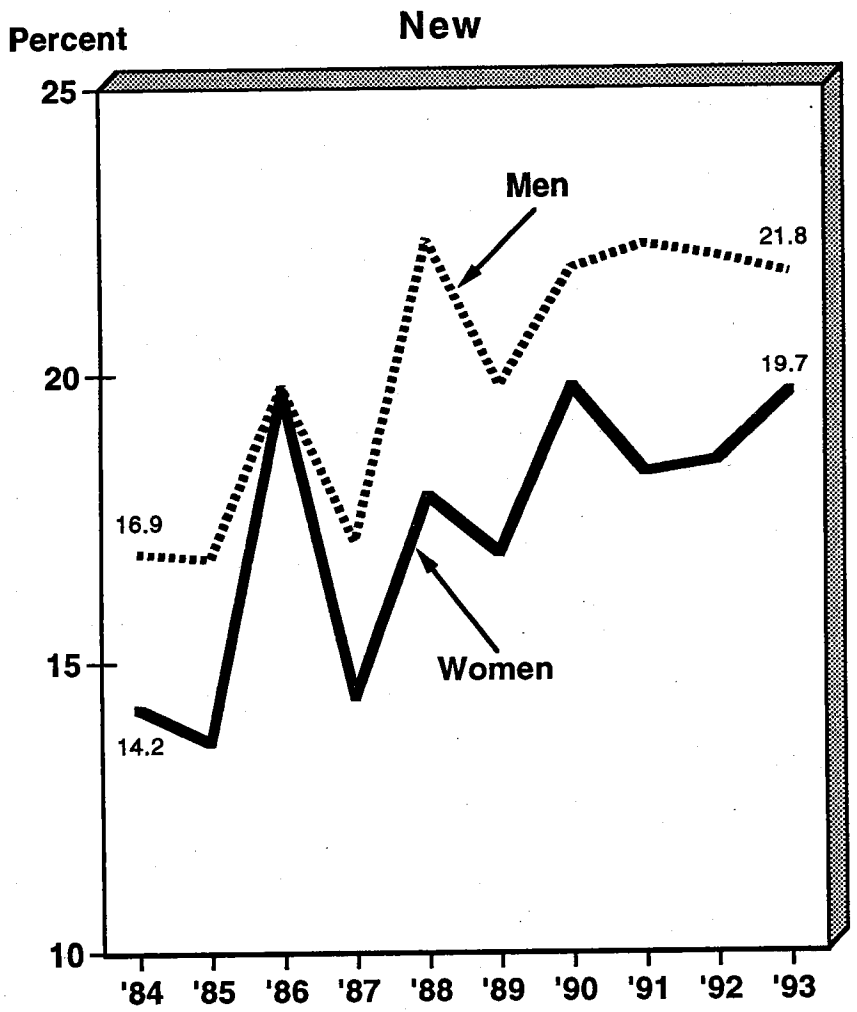
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	24.7	24.5	23.5	26.2	22.1	19.8	17.0	21.2	20.2	15.9
Female	23.6	24.1	22.9	24.6	20.4	20.8	19.0	21.4	20.8	15.9

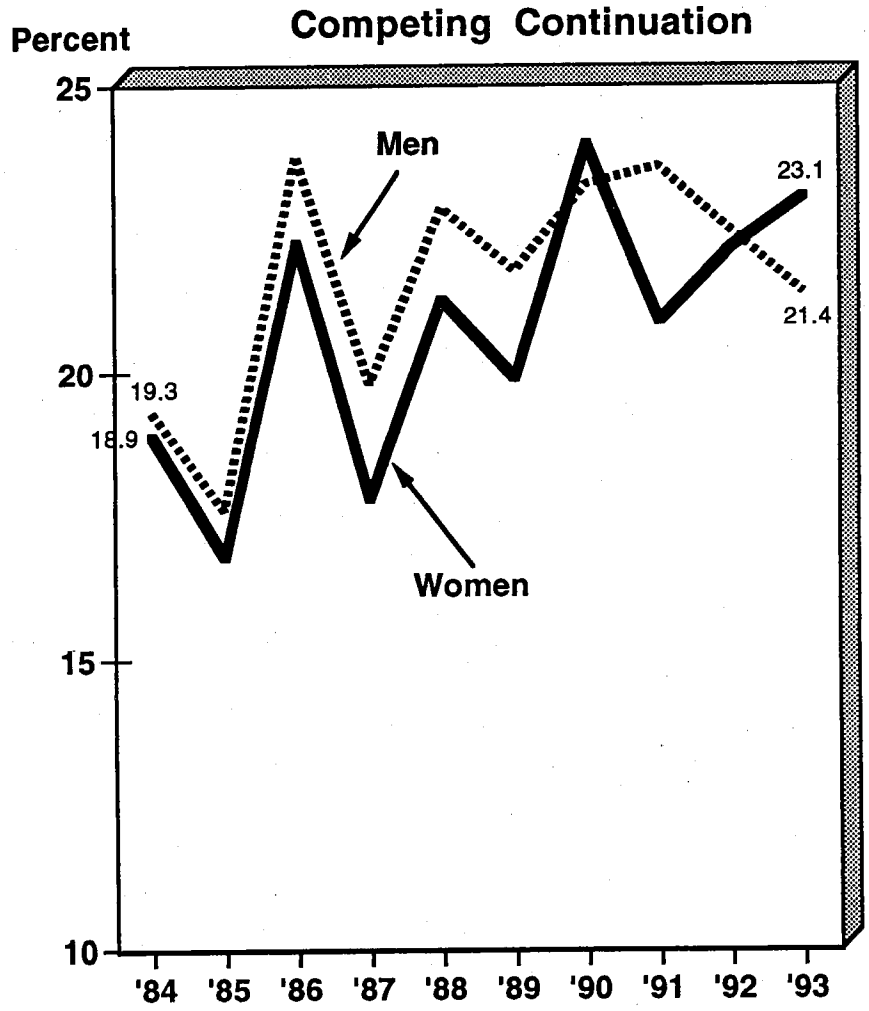
Competing Continuation Awards (Type 2)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	50.4	54.5	49.7	54.8	51.2	42.7	35.9	41.8	42.1	35.9
Female	49.1	48.2	50.3	49.6	47.7	42.4	36.0	39.8	40.7	35.6

Percent Reduction in Direct Cost Requested for NIH Competing Traditional Research Project (R01) Awards, FY1984-1993

by Type and Gender





Source: NIH, DRG, ISB, SAES

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3.4 Percent Reduction in Direct Cost Requested for Competing R01 by Type of Award

Generally, budget requests from women are reduced less than those from men for both new and competing continuation R01 awards. Women generally request less funding than men, and smaller requests generally result in smaller reductions from the amount requested.

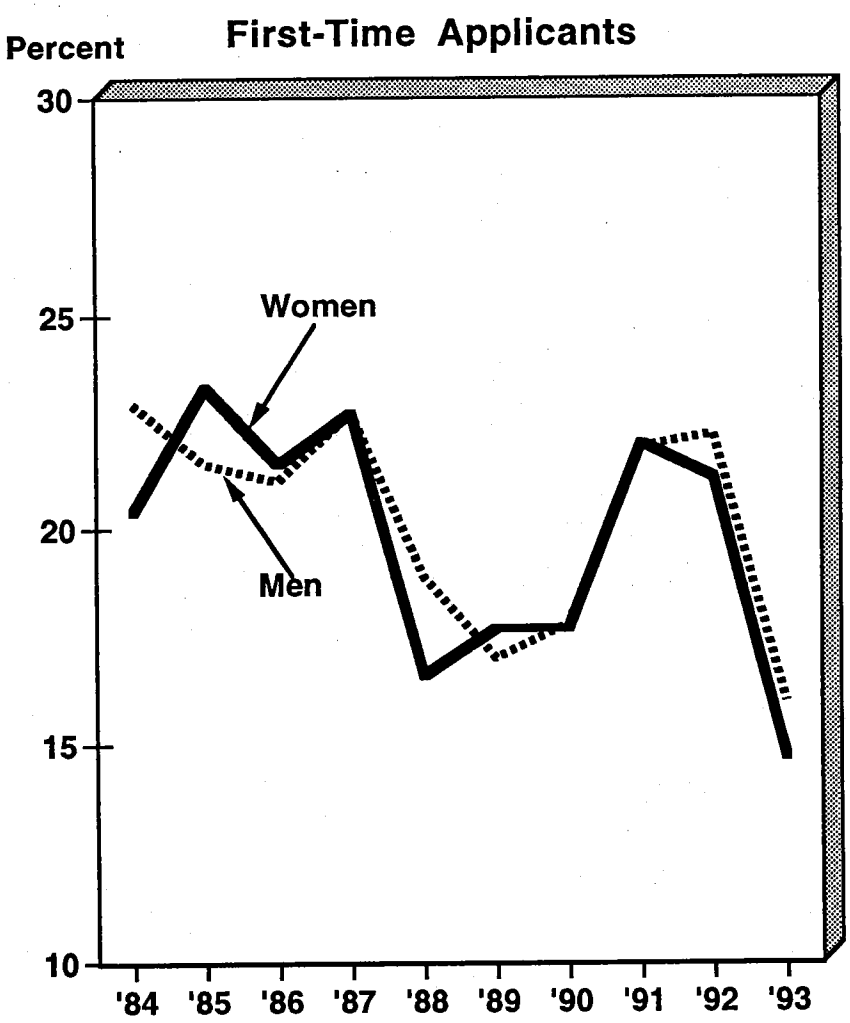
Overall, about 90 percent of competing R01 awards received less than the amount requested. For new awards funded during the FY 1984-1993 period, the percent reduction ranged from 13 to 20 percent for women and from 14 to 20 percent for men. The reduction for competing continuation awards was 17 to 25 percent for women and 19 to 24 percent for men over the same period.

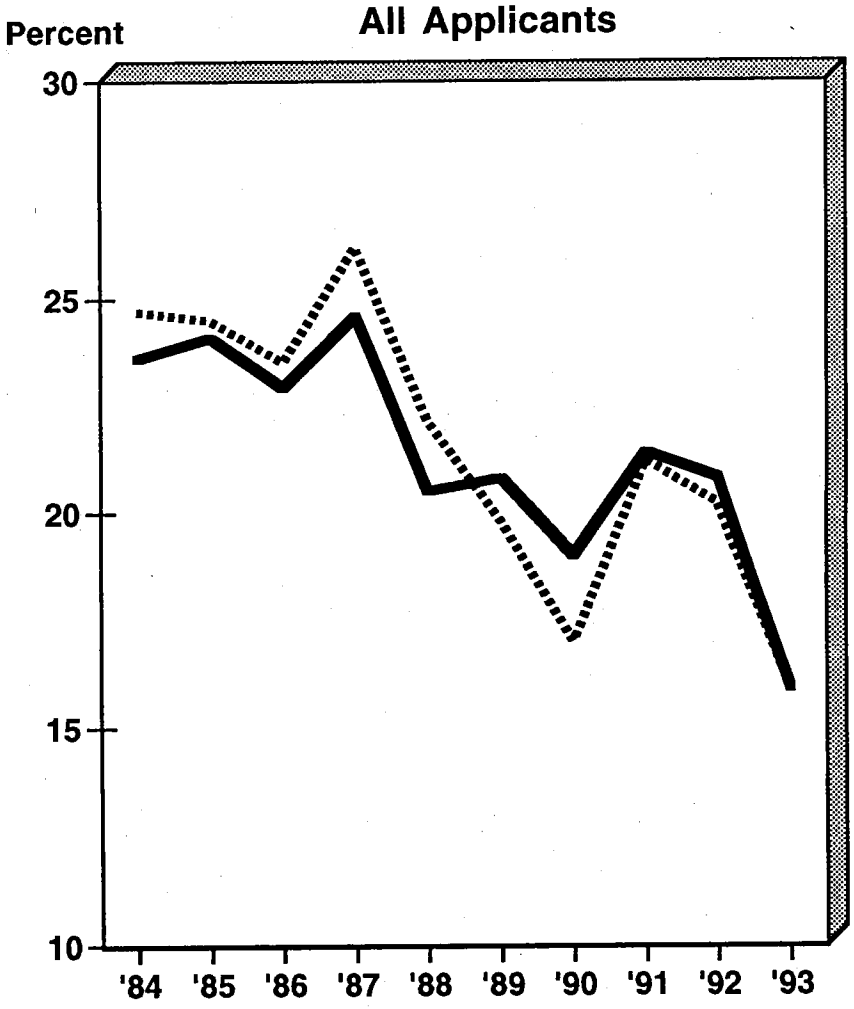
Percent Reduction in Direct Cost Requested for Traditional Competing Research Project Grant (R01) Awards*, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
New Awards (Type 1)										
Male	16.9	16.8	19.8	17.1	22.4	19.8	21.9	22.3	22.1	21.8
Female	14.2	13.6	19.7	14.4	17.9	16.9	19.8	18.3	18.5	19.7
Competing Continuation Awards (Type 2)										
Male	19.3	17.6	23.8	19.8	22.9	21.8	23.3	23.6	22.5	21.4
Female	18.9	16.8	22.3	17.8	21.3	19.9	24.8	20.9	22.2	23.1

*Excludes supplements, carryovers, SBIR's and gender nonresponse.

Success Rates for First-Time R01 Applicants Versus All New R01 Applicants by Gender, FY1984-1993





Source: NIH, DRG, ISB, SAES

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3.5 Success Rates for Competing R01 Grants by First-Time Applicants

There was little difference in success rates by gender for first-time R01 applicants during the FY 1984-1993 period. Specifically, men had slightly higher success rates for 5 fiscal years, women for 4 fiscal years, and in 1987 there was no difference by gender.

When R01 success rates of first-time applicants are compared with those for all applicants over the FY 1984-1993 period, a mixed picture emerges. From FY 1984 to 1989, the success rates for first-time applicants were lower than those for all applicants. However, in FY 1991 and FY 1992, first-time applicants had slightly higher success rates than all applicants. For FY 1990 and FY 1993 there was little difference between success rates for first-time applicants and for all applicants.

Success Rate for New Competing (Type 1) Traditional Research Project Grant (R01)
First Time Applicants by Gender, Fiscal Years 1984 - 1993

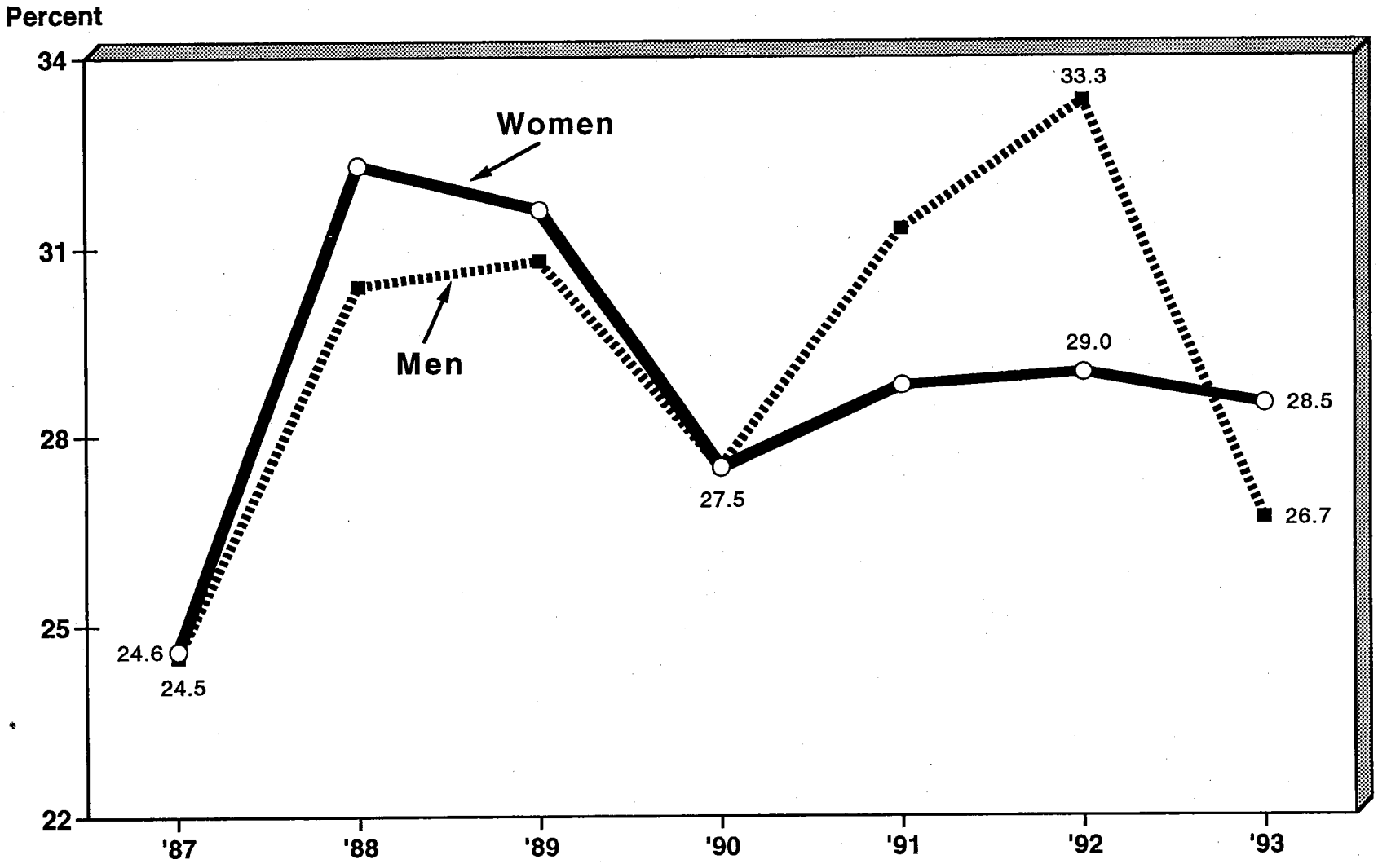
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	22.9	21.5	21.1	22.7	18.9	17.0	17.8	21.9	22.2	16.0
Female	20.4	23.3	21.5	22.7	16.6	17.7	17.7	22.0	21.2	14.7

Success Rate for New Competing (Type 1) Traditional Research Project Grant (R01) Awards
All R01 Applicants by Gender, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	24.7	24.5	23.5	26.2	22.1	19.8	17.0	21.2	20.2	15.9
Female	23.6	24.1	22.9	24.6	20.4	20.8	19.0	21.4	20.8	15.9

*Excludes supplements, carryovers and SBIR's.

Success Rates for NIH Competing FIRST (R29) Applications by Gender, FY1984-1993



Number of Applications:	'87	'88	'89	'90	'91	'92	'93
	1,831	2,178	1,817	1,700	1,625	1,734	1,862

Source: NIH, DRG, ISB, SAES

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3.6 Success Rates for Competing First Independent Research Support and Transition (FIRST, R29) Applicants

First Independent Research Support and Transition (FIRST, R29) awards have been granted since FY 1987 to provide initial research support for newly independent researchers. FIRST awards are nonrenewable, five year awards for a total of $350,000. In FY 1993, the R29 success rate for women was 28.5 percent; for men it was 26.7 percent. In comparison with other fiscal years, FY 1993 success rates were relatively low. For men, the success rate of 26.7 percent in FY 1993 was the lowest since the award was initiated in 1987.

The average dollar amount granted for FIRST awards was slightly less for women than for men in all years except FY 1987. For FY 1993, the difference in average R29 award was approximately one percent. R29 award amounts were slightly higher for both men and women in FY 1992.

Success Rates* for FIRST (R29) Awards by Gender, Fiscal Years 1987 -1993

	1987	1988	1989	1990	1991	1992	1993
Male	24.5	30.8	30.8	27.5	31.3	33.3	26.7
Female	24.6	31.6	31.6	27.5	28.8	29.0	28.5
All*	25.6	31.6	31.6	28.5	31.0	33.0	27.1

* Includes gender nonresponse.

List of Awarding Institutes and Centers of the NIH

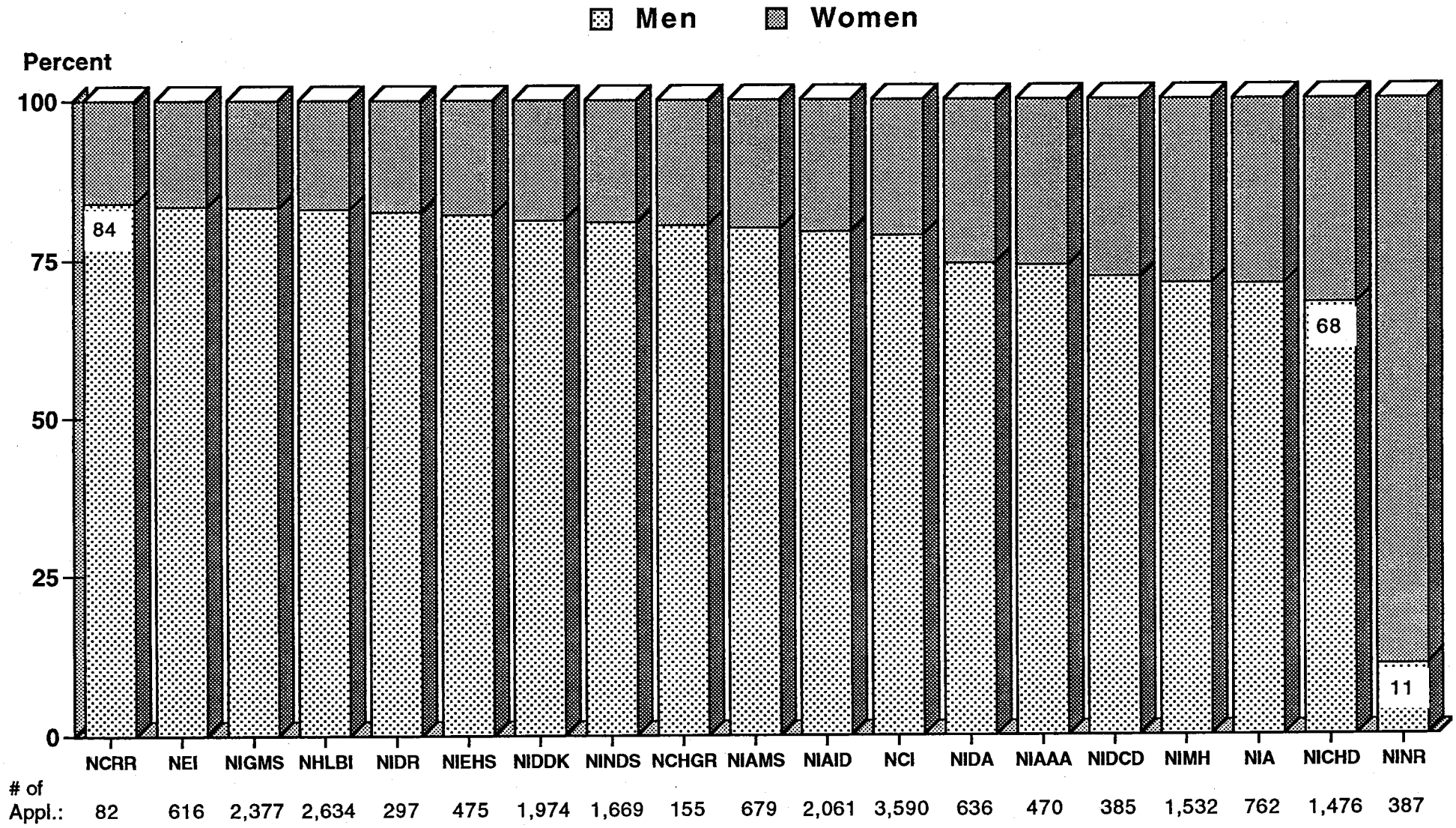
Institute/Center NIH institutes or centers; components of the National Institutes of Health (includes the National Library of Medicine). Institutes/centers can make extramural awards. Institutes/centers include:

AA	National Institute on Alcohol Abuse and Alcoholism (**NIAAA**)
AG	National Institute on Aging (**NIA**)
AI	National Institute of Allergy & Infectious Diseases (**NIAID**)
AR	National Institute of Arthritis & Musculoskeletal & Skin Diseases (**NIAMS**)
CA	National Cancer Institute (**NCI**)
CL	Clinical Center (**CLC**)
CT	Division of Computer Research and Technology (**DCRT**)
DA	National Institute on Drug Abuse (**NIDA**)
DC	National Institute on Deafness and Other Communication Disorders (**NIDCD**)
DE	National Institute of Dental Research (**NIDR**)
DK	National Institute of Diabetes & Digestive & Kidney Diseases (**NIDDK**)
DS	Division of Safety (**DS**)
ES	National Institute of Environmental Health Sciences (**NIEHS**)
EY	National Eye Institute (**NEI**)
GM	National Institute of General Medical Sciences (**NIGMS**)
HD	National Institute of Child Health & Human Development (**NICHD**)
HG	National Center for Human Genome Research (**NCHGR**)
HL	National Heart, Lung & Blood Institute (**NHLBI**)
LM	National Library of Medicine (**NLM**)
MH	National Institute of Mental Health (**NIMH**)
NR	National Institute for Nursing Research (**NINR**)
NS	National Institute of Neurological Disorders & Stroke (**NINDS**)
OD	Office of the Director (**NIH**)
RG	Division of Research Grants (**DRG**)
RR	National Center for Research Resources (**NCRR**)
TW	Fogarty International Center (**FIC**)
WH	Women's Health Initiative (**WHI, OD**)

4. Research Project Grant (RPG) Applications and Awards by Institute/Center

4.1 Number of Competing RPG Applications
4.2 Distribution of Competing RPG Awards
4.3 Success Rates for Competing RPG Applications
4.4 Average Size of Competing RPG Awards
4.5 Percent Reduction in Direct Cost Requested for Competing RPG
4.6 Average Percentile Rank for Competing RPG Awards

NIH Competing Research Project Grant Applications* by Institute/Center, FY1984 - 1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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4.1 Number of Competing RPG Applications

Among the NIH, the National Cancer Institute (NCI) reviewed the highest number of applications (3,590; including 744 from women). NCI also made the most awards to women of any institute, 179. The National Heart, Lung and Blood Institute (NHLBI), the National Institute of General Medical Sciences (NIGMS) and the National Institute of Allergy and Infectious Diseases (NIAID) each reviewed more than 2,000 applications during FY 1993.

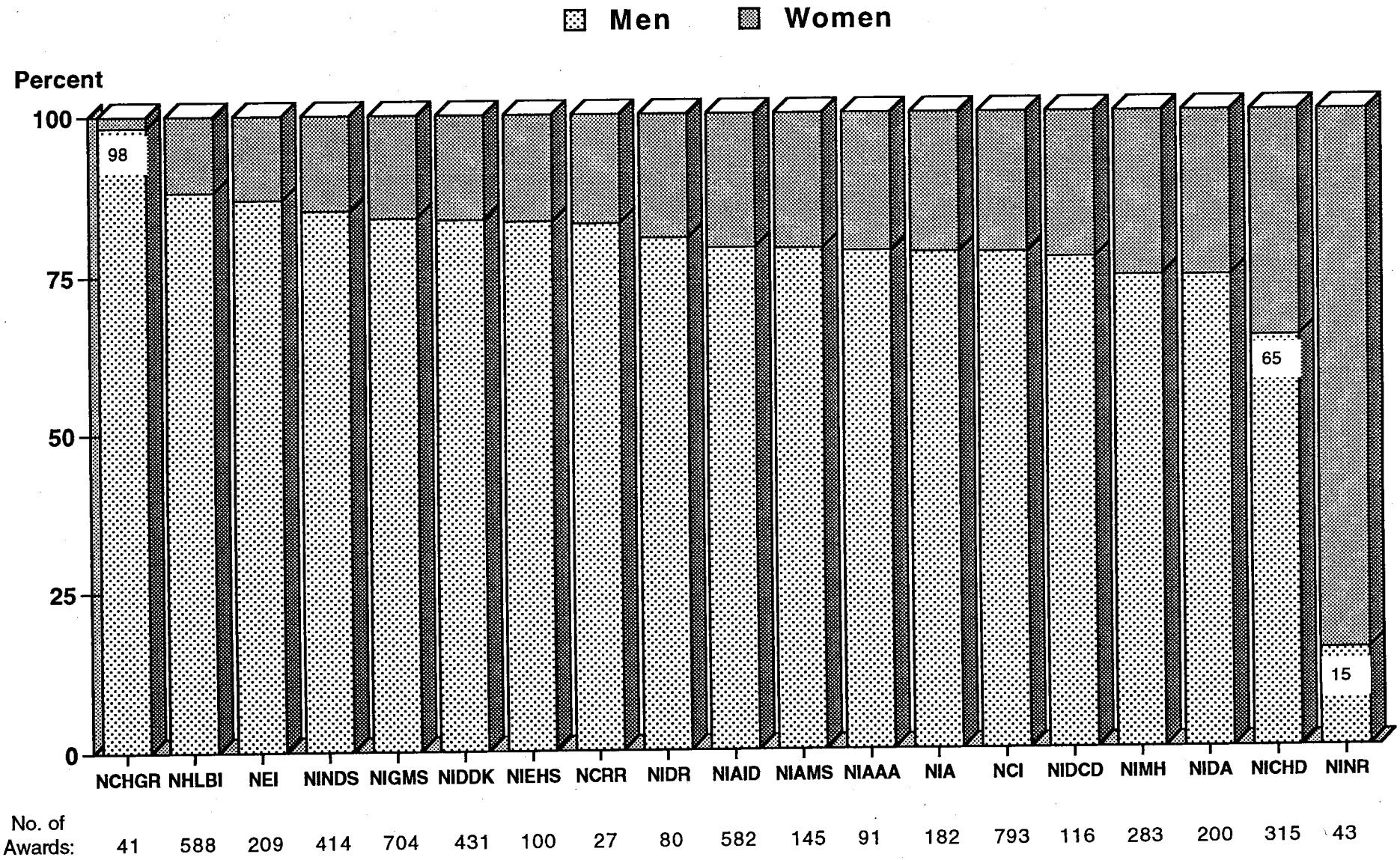
The National Institute for Nursing Research (NINR) was the only institute that reviewed more applications from women than from men, 332 versus 41. NINR also awarded more grants and dollars to women than to men.

Number of Competing RPG Applications by Institute/Center, FY 1993

	Men	Women	Total		Men	Women	Total
NIAAA	341	120	470	NEI	502	99	616
NIA	527	216	762	NIGMS	1,963	388	2,377
NIAID	1,590	416	2,061	NICHD	983	464	1,476
NIAMS	532	134	679	NCHGR	116	28	155
NCI	2,751	744	3,590	NHLBI	2,123	435	2,634
NIDA	463	161	636	NIMH	1,053	427	1,532
NIDCD	269	104	385	NINR	41	332	387
NIDR	242	51	297	NINDS	1,307	308	1,669
NIDDK	1,563	361	1,974	NCRR	68	13	82
NIEHS	381	83	475	NIH	16,788	4,883	22,255

* SBIR's are excluded; totals include gender nonresponse.

NIH Competing Research Project Grant Awards* by Institute/Center and Gender, FY1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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4.2 Distribution of Competing RPG Awards

Among the NIH, the National Cancer Institute (NCI) supported the highest number of awards in FY 1993, 793. NCI also made the most awards to women, 179. The National Institute of General Medical Sciences (NIGMS) supported the next highest number of awards in FY 1993, 704, with 120 awards to women.

The National Institute for Nursing Research (NINR) awarded the highest percentage of dollars to women for competing research project grants in FY 1993. Women received 85 percent of the dollars NINR awarded (excluding nonresponse) in FY 1993, 36 awards. The National Center for Human Genome Research (NCHGR) awarded 7 percent (3 awards), the smallest percentage to women (excluding nonresponse).

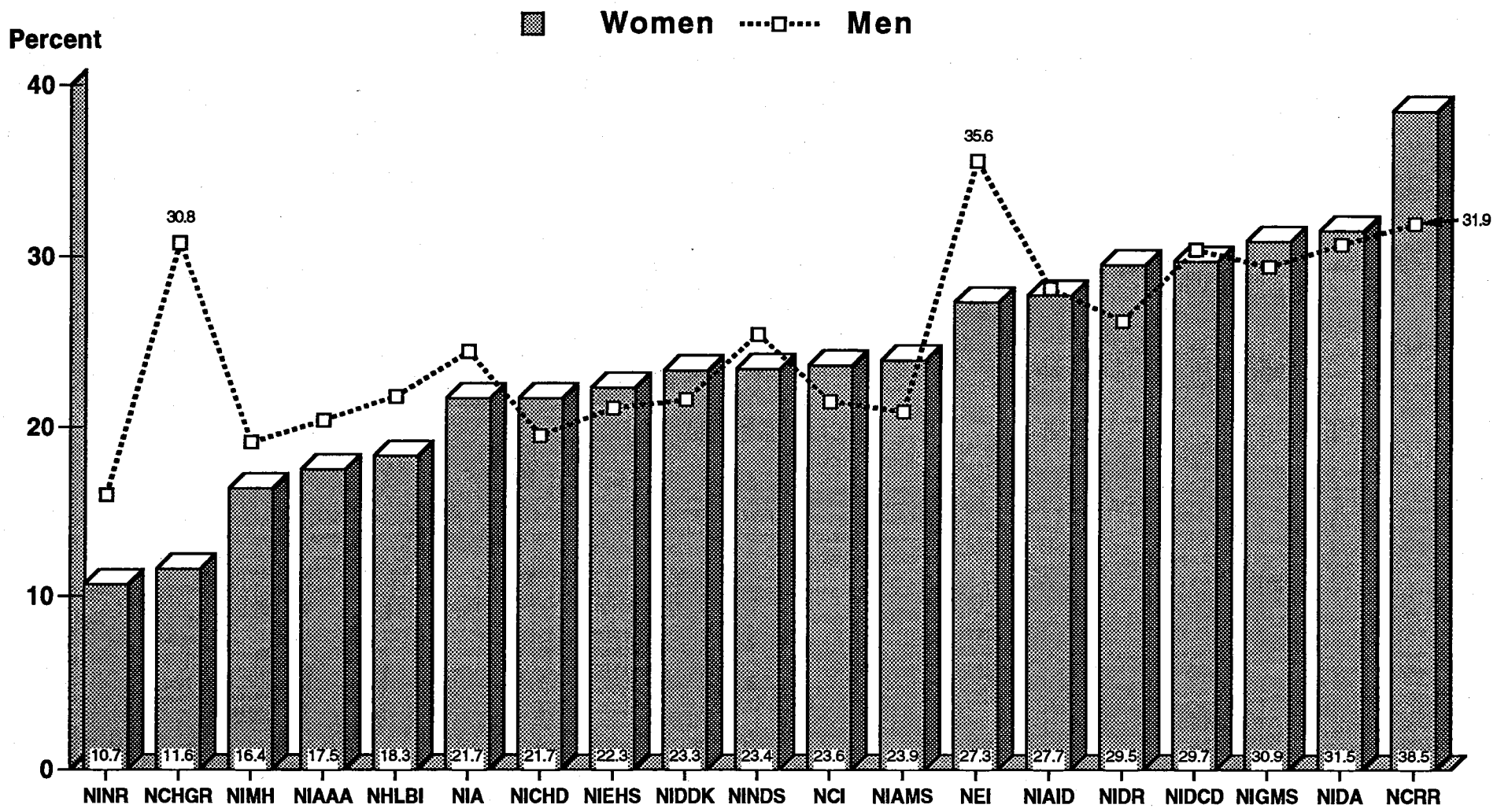
Number of Competing RPG Awards by Institute/Center, FY 1993

	Men	Women	All		Men	Women	All
NIAAA	70	21	91	NEI	179	27	209
NIA	132	49	182	NIGMS	571	120	704
NIAID	452	116	582	NICHD	202	106	315
NIAMS	112	32	145	NCHGR	36	3	41
NCI	591	179	793	NHLBI	488	88	588
NIDA	144	51	200	NIMH	201	70	283
NIDCD	82	31	116	NINR	7	36	43
NIDR	64	15	80	NINDS	333	72	414
NIDDK	337	84	431	NCRR	22	5	27
NIEHS	80	18	100	NIH	4,102	1,123	5,344

* SBIR's are excluded; totals include gender nonresponse.

Success Rates for NIH Competing Research Project Grants,* FY1993

by Institute/Center and Gender



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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4.3 Success Rates for Competing RPG Applicants

In FY 1993, the success rates for competing research project grant applicants were higher for women than for men in a number of institutes. The highest success rate for women was 38.5 percent, from the National Center for Research Resources (NCRR). (It should be noted that NCRR funded 5 awards for women from 13 applications.) Women also had success rates of 30 percent or more from 4 other institutes. In each of these 5 institutes, the success rates for women were at least as high as those for men. For FY 1993, women had the lowest success rate from the National Institute for Nursing Research (NINR), 11 percent. In fact, NINR had the lowest success rates of all institutes for both men and women.

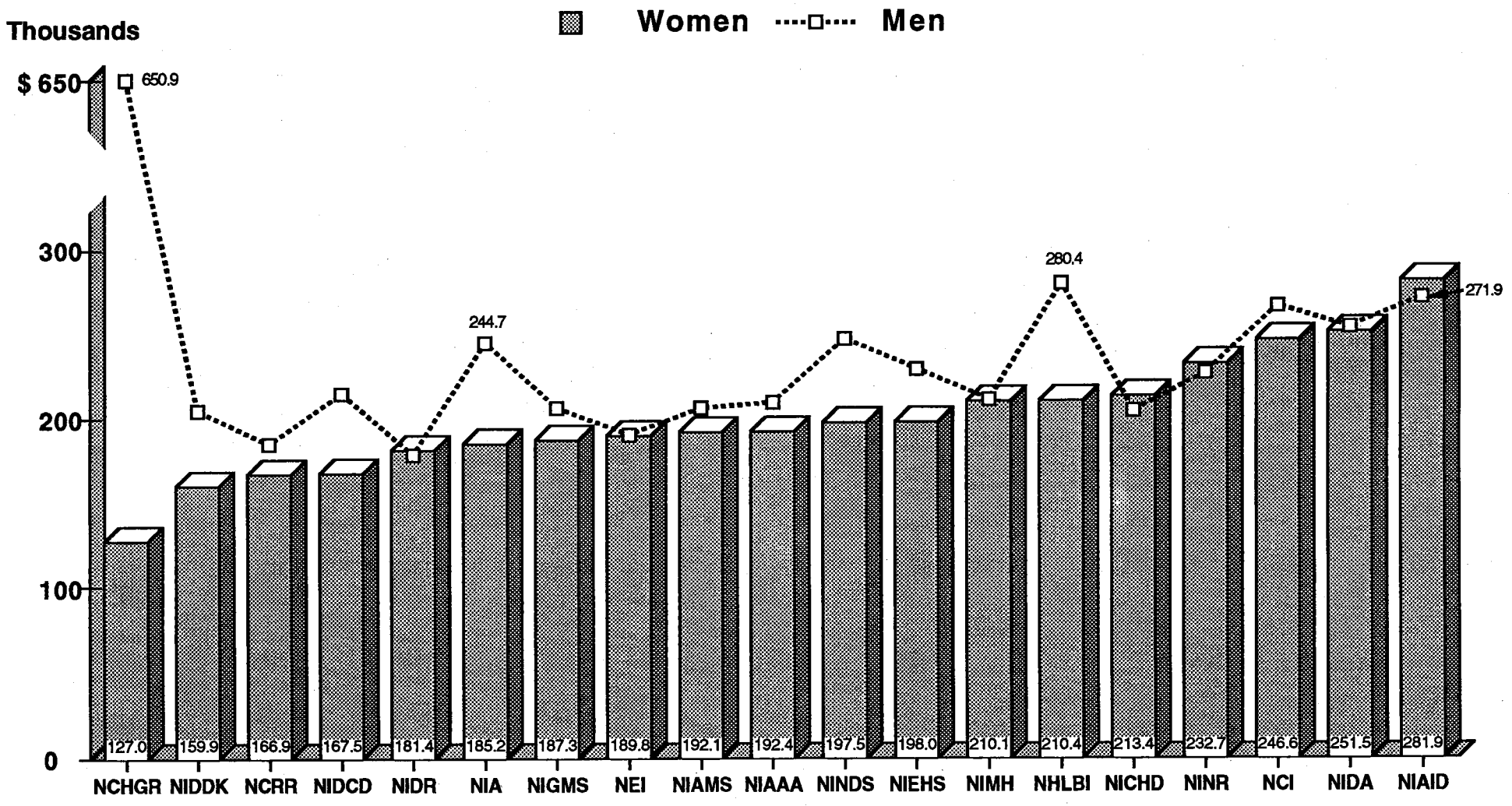
The low number of applications reviewed for a particular category may contribute to extreme or divergent success rates. For example, the National Center for Human Genome Research (NCHGR) reviewed only 28 applications from women versus 116 from men. Consequently, the relatively low success rate for female candidates from NCHGR may be related to the small sample size.

Success Rates for Competing RPG Applicants by Institute/Center, FY 1993

	Men	Women	All		Men	Women	All
NIAAA	20.4	17.5	19.3	NEI	35.6	27.3	33.8
NIA	24.4	21.7	23.3	NIGMS	29.6	30.9	29.6
NIAID	28.1	27.7	28.0	NICHD	19.5	21.7	20.2
NIAMS	20.9	23.9	21.3	NCHGR	30.8	11.6	26.0
NCI	21.5	23.6	22.0	NHLBI	21.8	18.3	21.0
NIDA	30.7	31.5	31.1	NIMH	19.1	16.4	18.5
NIDCD	30.4	29.7	30.1	NINR	16.0	10.7	11.1
NIDR	26.2	29.5	26.8	NINDS	25.4	23.4	24.7
NIDDK	21.6	23.3	21.8	NCRR	31.9	38.5	32.5
NIEHS	21.1	22.3	21.1	NIH	24.1	22.6	23.6

* SBIR's are excluded; totals include gender nonresponse.

Average Size of Awards for NIH Competing Research Project Grants* by Institute/Center and Gender, FY1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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4.4 Average Size of Competing RPG Awards

The National Center for Human Genome Research (NCHGR) offered a relatively small number of awards (41) but the highest average amount ($589,151) in FY 1993. No other institute approached NCHGR in average size; the National Institute of Allergy and Infectious Diseases (NIAID) followed with an average award of $278,457.

In FY 1993, institutes with the highest average award to women included NIAID, the National Institute on Drug Abuse (NIDA) and the National Cancer Institute (NCI), all averaging $247,000 or more. Women had higher average award amounts than men in four Institutes: NIAID, the National Institute of Dental Research (NIDR), the National Institute of Child Health and Human Development (NICHD) and the National Institute of Nursing Research (NINR).

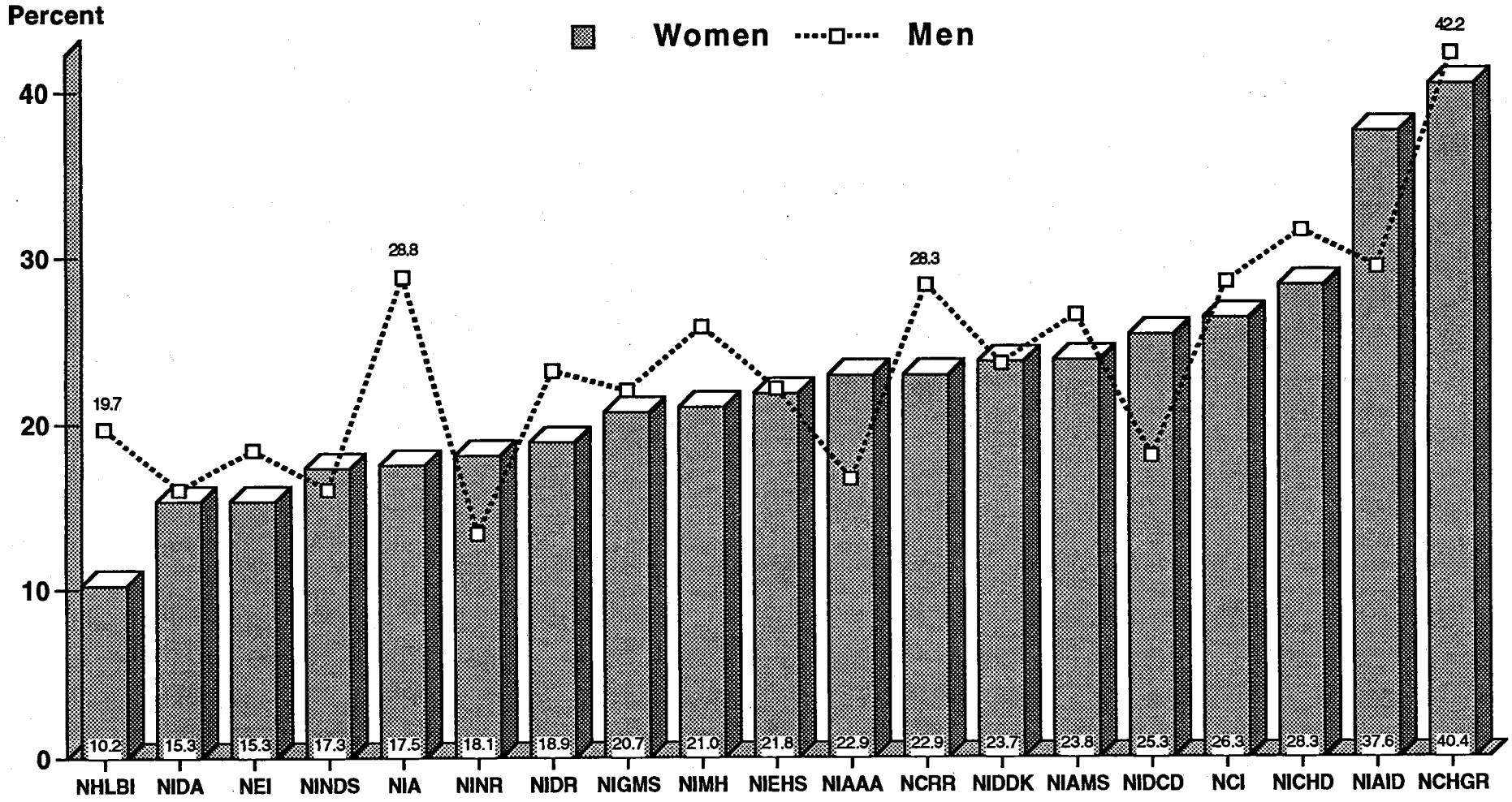
Average Size of Competing RPG Awards (thousand dollars) by Institute/Center, FY 1993

	Men	Women	All		Men	Women	All
NIAAA	210	192	206	NEI	190	190	192
NIA	245	185	228	NIGMS	206	187	205
NIAID	272	282	278	NICHD	205	213	207
NIAMS	206	192	203	NCHGR	651	127	589
NCI	267	247	262	NHLBI	280	210	269
NIDA	254	252	257	NIMH	211	210	211
NIDCD	215	167	200	NINR	227	233	234
NIDR	179	181	180	NINDS	247	198	237
NIDDK	205	160	199	NCRR	185	167	182
NIEHS	229	198	223	NIH	241	215	236

* SBIR's are excluded; totals include gender nonresponse.

Percent Reduction in Direct Cost Requested for NIH Competing Research Project Grant Awards,* FY1993

by Institute/Center and Gender



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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4.5 Percent Reduction in Direct Cost Requested for Competing RPG Awards

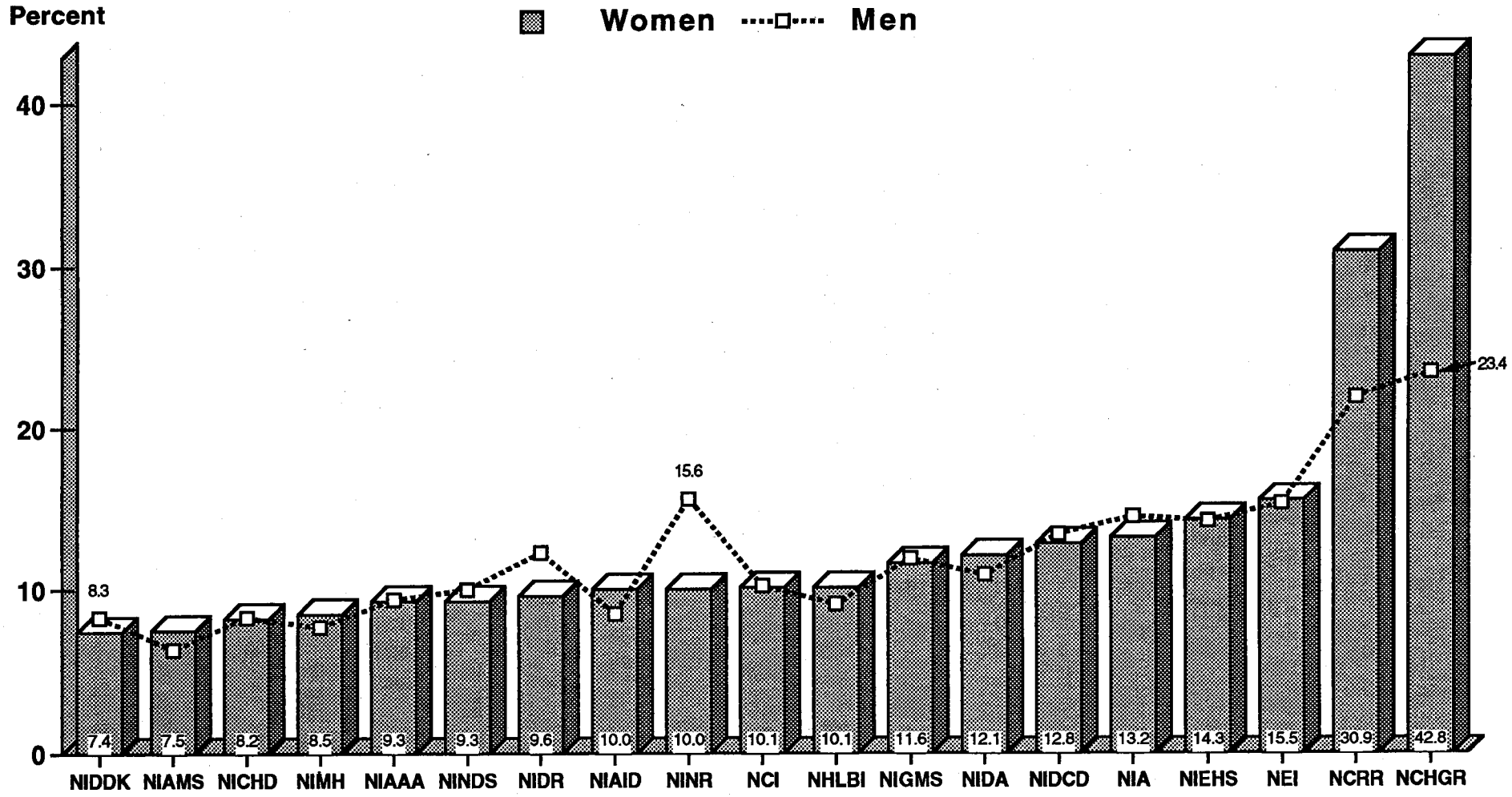
The average percent reductions for NIH competing research project grant awards in FY 1993 were nearly equal for women (24.4) and men (24.6). The institute with the largest percent reduction was the National Center for Human Genome Research (NCHGR) with an average reduction of 42.2 percent for men and 40.4 percent for women. The National Heart, Lung, and Blood Institute (NHLBI) had the lowest average reduction for women, 10.2 percent. The National Institute for Nursing Research (NINR) had the lowest average reduction for men, 13.0 percent.

Percent Reduction in Direct Cost Requested for Competing RPG Awards by Institute/Center, FY 1993

	Men	Women	All		Men	Women	All
NIAAA	17	23	18	NEI	18	15	18
NIA	29	18	27	NIGMS	22	21	22
NIAID	29	38	31	NICHD	32	28	30
NIAMS	27	24	26	NCHGR	42	40	42
NCI	29	26	28	NHLBI	20	10	19
NIDA	16	15	16	NIMH	26	21	25
NIDCD	18	25	20	NINR	13	18	18
NIDR	23	19	22	NINDS	16	17	16
NIDDK	24	24	24	NCRR	28	23	27
NIEHS	22	22	22	NIH	25	24	25

* SBIR's are excluded; totals include gender nonresponse.

Average Percentile Rank for NIH Competing Research Project Grant Awards* by Institute/Center and Gender, FY1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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4.6 Average Percentile Rank for Competing RPG Awards

The percentile rank indicates the relative quality of an application (as measured by priority score) in relation to the applications reviewed and percentiled. The "better" the application, the lower the numeric percentile rank. The average award percentile rank by institute (shown below) indicates the mean percentile rank of those applications which obtained funding.

In FY 1993, the National Center for Human Genome Research (NCHGR) had the highest average percentile rank for women (43); the National Institute of Diabetes and Digestive Kidney Diseases (NIDDK) had the lowest (7). Note that both NCHGR and the National Center for Research Resources (NCRR) funded a relatively small number of awards in FY 1993. The award percentile rank was generally close for women and men with the exception of the NCHGR and the NCRR, where the percentile ranks for women (43 and 31) were considerably higher than those for men (24 and 22), respectively.

Competing RPG Awards Percentile Rank by Institute/Center, FY 1993

	Men	Women	All		Men	Women	All
NIAAA	9	9	9	NEI	15	16	15
NIA	15	13	14	NIGMS	12	12	12
NIAID	9	10	9	NICHD	8	8	8
NIAMS	6	8	7	NCHGR	24	43	27
NCI	10	10	10	NHLBI	9	10	9
NIDA	11	12	11	NIMH	8	9	8
NIDCD	13	13	13	NINR	16	10	10
NIDR	12	10	12	NINDS	10	9	10
NIDDK	8	7	8	NCRR	22	31	23
NIEHS	14	14	14	NIH	NM	NM	NM

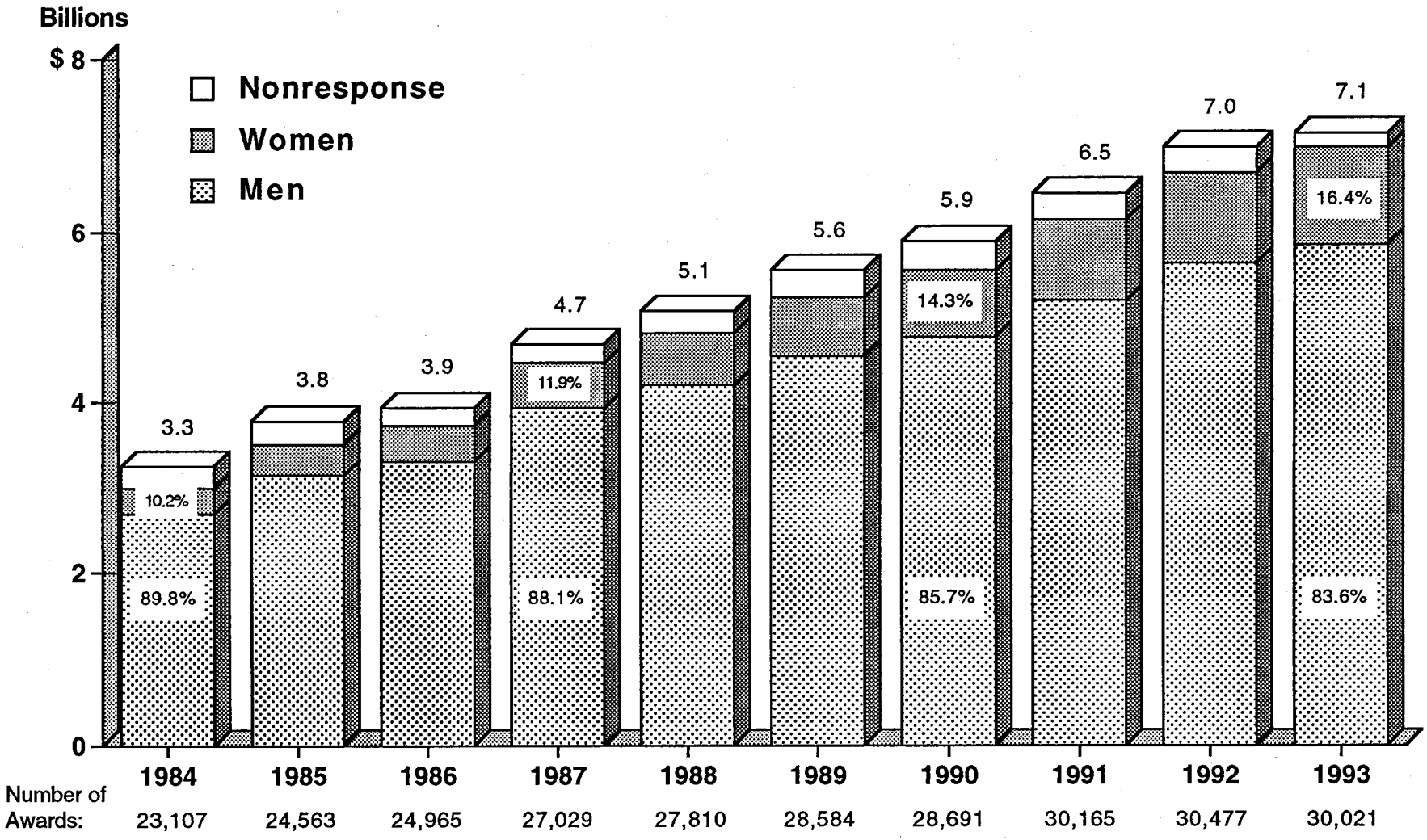
* SBIR's are excluded; all include gender nonresponse; NM--not meaningful.

5. Research Grant Awards

5.1 Total Dollars Awarded for Research Grants
5.2 Research Projects, Research Centers, and Other Research Grants
5.3 Average Dollar Size of Research Grant Awards
5.4 Research Grant Awards by PHS Geographical Region
5.5 Competing Request for Applications (RFA) Awards

NIH Research Grant Awards,* FY1984-1993

by Gender



Note: Percentages shown excludes nonresponse.
*Dollar amount reflects direct and indirect costs. Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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5.1 Total Dollars Awarded for Research Grants

The total dollars awarded for competing and noncompeting research grants more than doubled from FY 1984 to FY 1993. Funding for women more than tripled and for men doubled during that period. The percentage of total research grant dollars awarded to women increased steadily, from 10.2 percent in FY 1984 to 16.4 percent in FY 1993 (excluding nonresponse).

Women received a total of 5,923 research grant awards (competing and non-competing) in FY 1993, compared with 23,410 to men. For the percentage of total research grant dollars awarded by gender for the top 50 institutions in FY 1993, see Appendix A. Please note that **award amounts shown below include both direct and indirect costs.**

Total Dollars Awarded (millions) for Competing and Noncompeting Research Grants by Gender (FY 1984-1993)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	2,691	3,148	3,308	3,935	4,203	4,535	4,757	5,201	5,630	5,847
Female	307	364	425	531	603	698	796	942	1,058	1,145
Total*	3,257	3,780	3,938	4,680	5,072	5,551	5,891	6,457	6,989	7,145

*Totals include gender nonresponse award recipients.

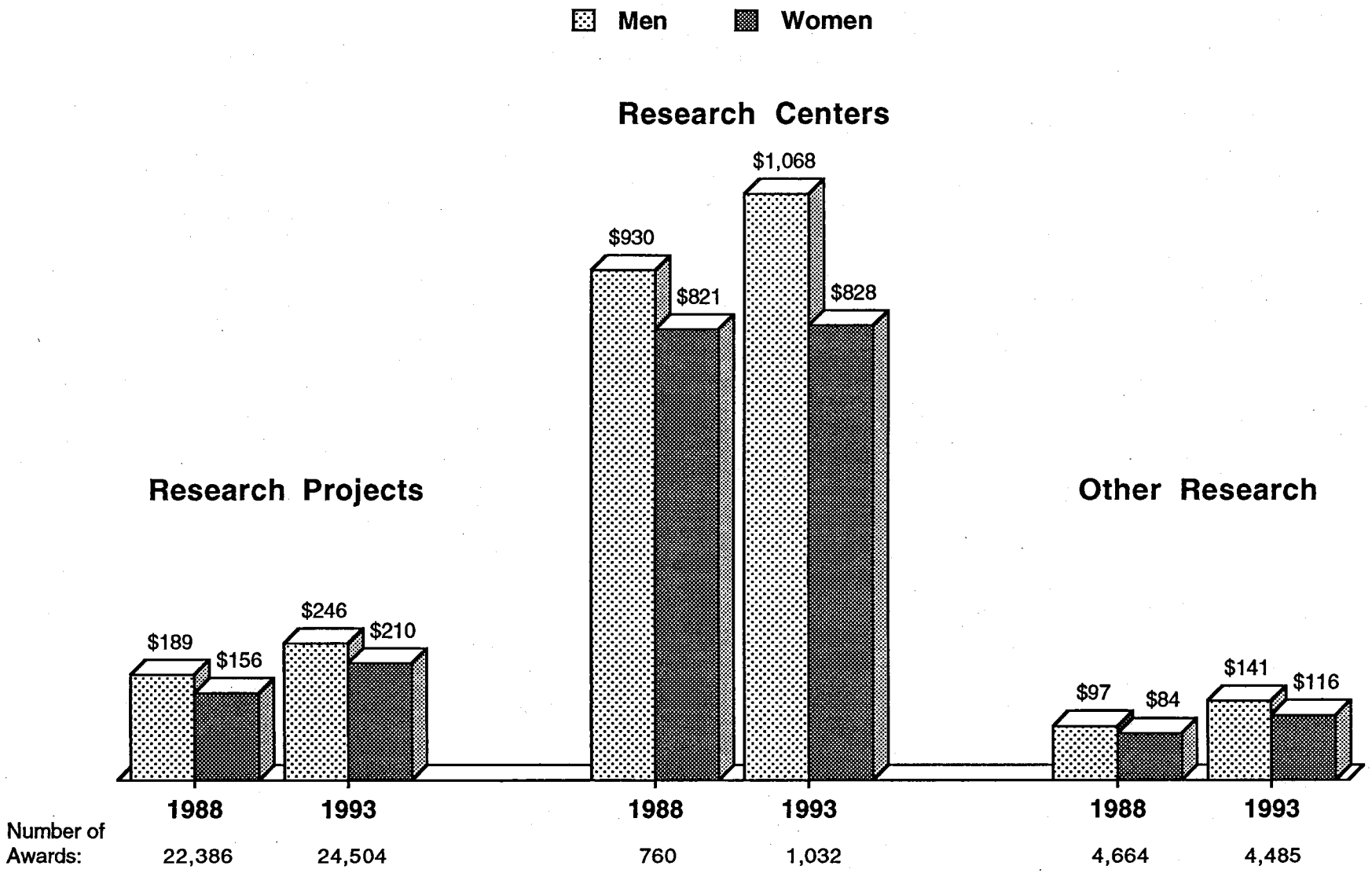
Percent Distribution* of Dollars Awarded for Competing and Noncompeting Research Grants by Gender (FY 1984-1993)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	89.8	89.6	88.6	88.1	87.4	86.7	85.7	84.7	84.2	83.6
Female	10.2	10.4	11.4	11.9	12.6	13.3	14.3	15.3	15.8	16.4

*Excludes nonresponse and SBIR's.

Average Size of Awards* for NIH Research Grants by Activity Group and Gender, FY1988 and FY1993

(dollars in thousands)



*Dollar amount reflects direct and indirect costs. Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested. Excludes supplements.

Source: NIH, DRG, ISB, SAES

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5.2 Research Projects, Research Centers, and Other Research Grants

Research grants include three kinds of grants: 1) **Research project grants (RPG's)**-- discrete, circumscribed research projects; 2) **Research center grants**-- large-scale, multi-investigator research, with average awards about five times as large as RPG's; 3) **Other research**-- a mixed category with smaller awards, on average, than RPG's. Examples of other research include research career awards, biomedical research support grants, and Academic Research Enhancement Awards (AREA).

For each research center grant, the NIH has information only about the program director or principal investigator, not investigators who perform the research under each grant. Thus, the gender representation of the program directors may not be representative of the gender of all investigators associated with research center grants. In addition, the high proportion of male program directors for these relatively "expensive" awards tends to overstate the male average award size. Conversely, research project grants offer more accurate data on gender, since they have fewer investigators--sometimes a single investigator--and higher gender response rates.

The average size of RPG awards to women has increased by about 35 percent since FY 1988 ($210 vs. $156 thousand), while that to men has increased by 30 percent ($246 vs. $189 thousand). There was an 84 percent increase in the total RPG dollars awarded to women ($956 vs. $519 million) since FY 1988, a 37 percent increase for men. The total dollars awarded to women program directors for research center awards increased by 141 percent, while total dollars to men increased by 47 percent. (See Appendix B for total dollars awarded for research project, research center, and other research grants in FY 1988 and FY 1993.)

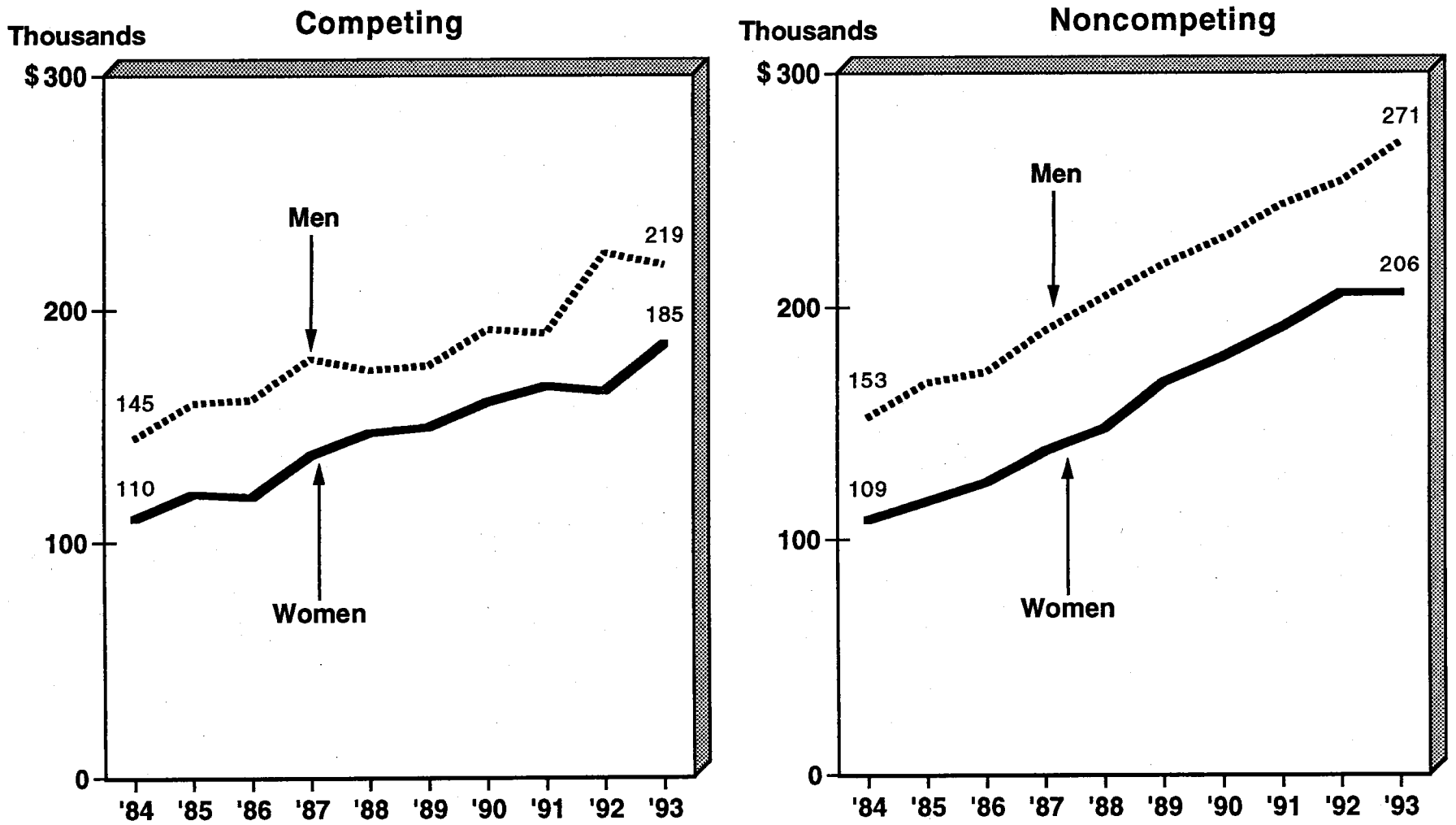
Total Dollars Awarded (millions) and Number of Awards for Research Project, Research Center, and Other Research Grants (FY 1988 and FY 1993)

	Fiscal Year 1988						Fiscal Year 1993					
	Research Projects		Research Centers		Other Research		Research Projects		Research Centers		Other Research	
	Total	Number	Total	Number	Total	Number	Total	Number	Total	Number	Total	Number
Male	$3,321	17,983	$556	674	$327	3,352	$4,570	19,328	$815	910	$461	3,172
Female	$519	3,430	$27	32	$58	690	$956	4,766	$65	91	$123	1,066
All*	$4,004	22,386	$627	760	$440	4,664	$5,619	24,504	$911	1,032	$615	4,485

*Includes gender nonresponse; other research encompasses a wide range of mechanisms; excludes SBIR's.

Average Size of Awards* for NIH Research Grants, FY1984-1993

by Gender



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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5.3 Average Dollar Size of Research Grant Awards

For research grants, the average award to women in FY 1993 was $199.8 thousand, while the average for men was $256.9 thousand. The average research grant award to women was 83.1 percent larger in FY 1993 than in FY 1984, while that to men was 70.9 percent larger over the same period. Research center awards, which average almost five times the amount of RPG awards, account for part of the difference in the average amount for research grant awards to men and women during the FY 1984-1993 period.

Except for FY 1992, the ratio of the average dollar size of women's research grants to men's has been higher for competing awards than for noncompeting awards since FY 1984. In FY 1993, this ratio was 84 percent for competing and 76 percent for noncompeting research grants. However, the ratio of average award amounts for women, when compared to that for men, has increased for both competing and noncompeting awards over the ten years.

Average Dollar Amount* (thousands) for Research Grant Awards by Gender, Fiscal Years 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	150.3	165.1	168.9	186.2	194.1	205.3	218.4	226.4	244.8	256.9
Female	109.1	117.9	122.8	138.3	148.0	161.9	173.4	183.7	192.7	199.8
All	143.8	156.6	159.5	175.8	184.4	195.7	207.1	215.4	232.9	242.5

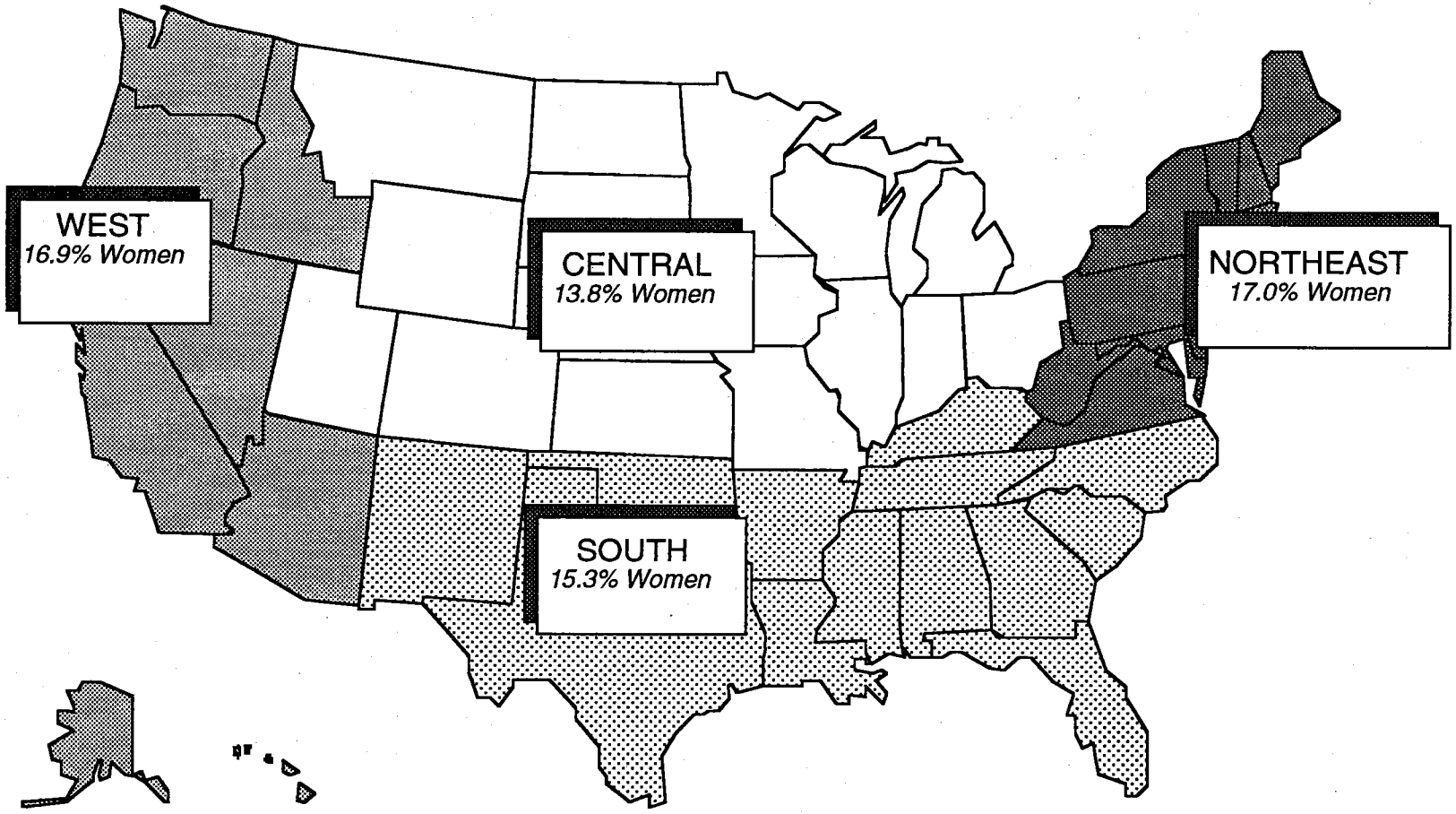
*Supplements and SBIR's are excluded; all includes gender nonresponse.

Ratio of the Average Dollar Amount for Research Grant Awards to Women vs. Men, FY 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
All Research Grants	0.76	0.75	0.77	0.78	0.80	0.83	0.84	0.86	0.83	0.82
Competing Research Grants	0.76	0.76	0.74	0.77	0.84	0.85	0.84	0.88	0.74	0.84
Noncompeting Research Grants	0.69	0.69	0.73	0.73	0.73	0.77	0.78	0.79	0.81	0.76

*Supplements and SBIR's are excluded.

NIH Research Grant Awards to Women by PHS Geographical Region, FY1993



Note: Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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5.4 Research Grant Awards to Women by PHS Geographical Region

In FY 1993, women received a similar percentage of funding in each of the four geographical regions. Women in the West region received 16.9 percent of research grant award dollars, and women in the Northeast region, 17.0 percent. The smallest percentage of research grant funds went to women in the Central/Midwest region, 13.8 percent.

The states which comprise each region include:

Central -- Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, South Dakota, Utah, Wisconsin, Wyoming.

Northeast -- Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia, Puerto Rico.

South -- Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas.

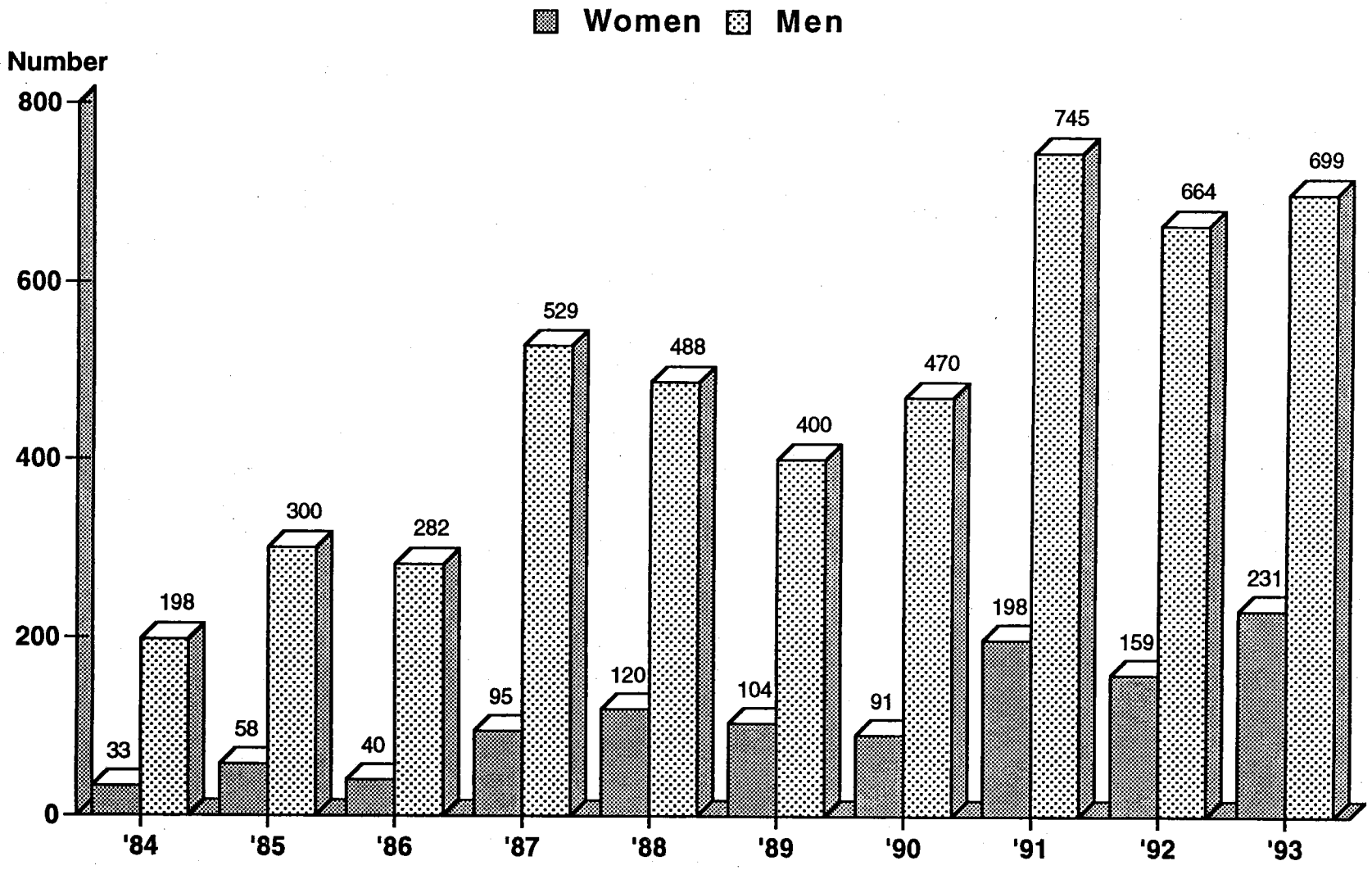
West -- Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Washington.

Number and Dollar Amount (millions) for Research Grant Awards* by Gender and Geographical Region Fiscal Year 1993

	Central/Midwest		Northeast		South		West	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
Male	5,501	$1,230.1	8,826	$2,383.8	4,615	$1,025.9	4,281	$1,179.6
Female	1,217	$202.0	2,416	$500.5	1,090	$190.7	1,158	$245.6

* SBIR's and gender nonresponse award recipients are excluded.

Number of NIH Competing Research Grant Awards* Resulting from RFA's** by Gender, FY1984-1993



*Excludes SBIR's (R43, R44, U43, and U44) for which gender information is not requested.
**Requests for applications.
Source: NIH, DRG, ISB, SAES

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5.5 Competing Request for Applications (RFA) Awards

A request for applications (RFA) is a statement inviting applications in a well-defined scientific area to accomplish specific program purposes. In general, there is a single receipt date for these applications; funds are set aside and the number of awards is often determined in advance.

There was an increasing number of RFA awards during the FY 1984-1993 period. The total number of competing research grant awards resulting from RFA's showed a four-fold increase, from 238 to 1,000. From FY 1984 to FY 1993, the average amount of competing research grant RFA awards to women increased by 95 percent ($252.6 thousand), compared with a 34 percent increase for men, whose average in FY 1993 was $289.0 thousand.

Number of Competing Research Grant Awards* Resulting from RFA's by Gender, Fiscal Years 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	198	300	282	529	488	400	470	745	664	699
Female	33	58	40	95	120	104	91	198	159	231
Total	238	366	332	671	690	606	617	990	1,063	1,000

Average Size of Competing Research Grant Awards* Resulting from RFA's by Gender, Fiscal Years 1984-1993

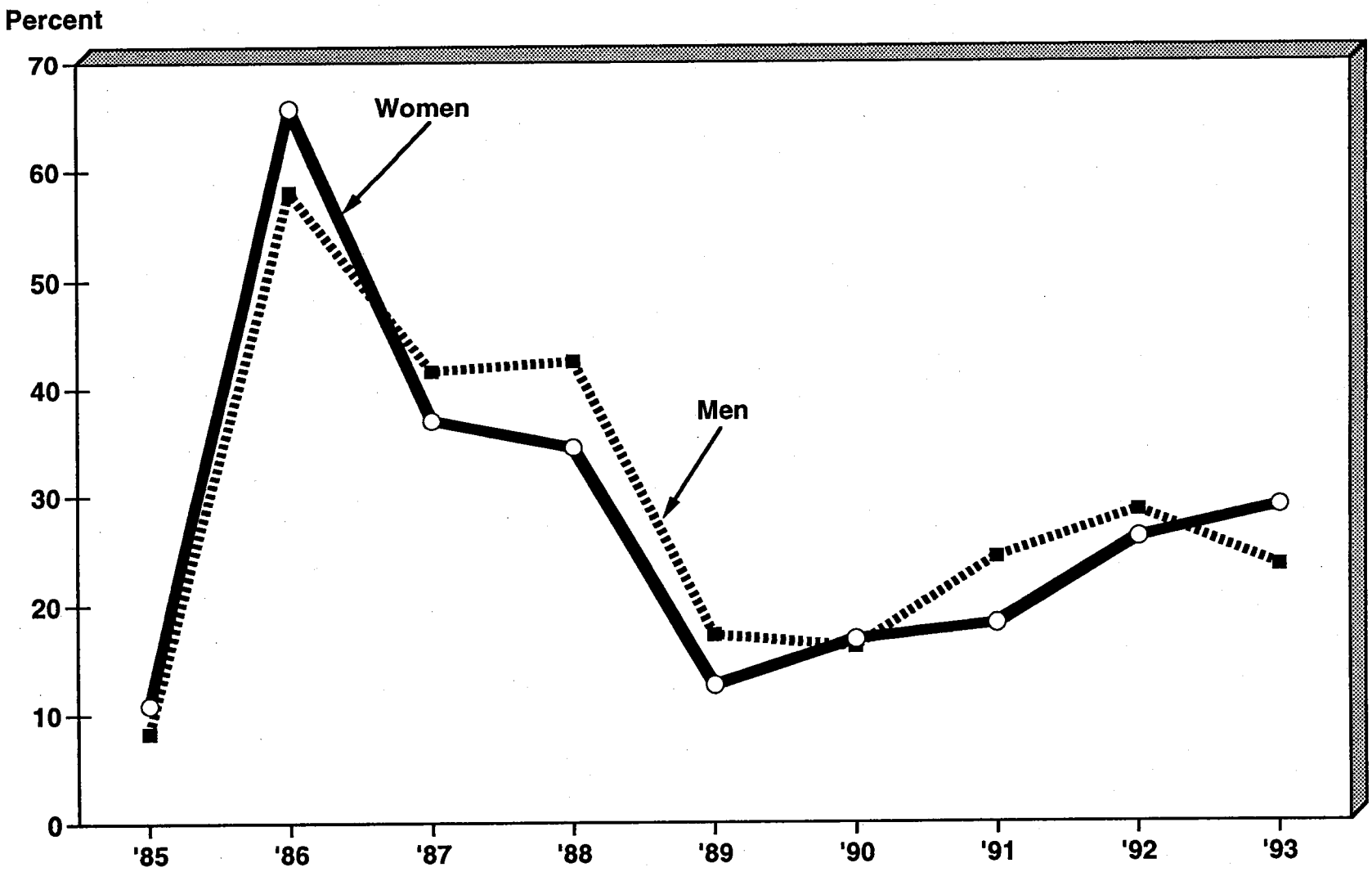
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	216	248	229	303	328	304	337	263	402	289
Female	130	150	134	188	261	217	363	172	217	253

* SBIR's are excluded; total includes gender nonresponse.

6. Selected Research Grant Mechanisms

6.1 Academic Research Enhancement Awards (R15, AREA) Success Rates
6.2 Number of R15, AREA Awards and Total Dollars Awarded
6.3 Distribution of R15, AREA Awards by Kind of Organization
6.4 Number of and Success Rates for Competing Small Research Grants (R03)
6.5 Number of and Total Dollars Awarded for James A. Shannon Director's Awards (R55)
6.6 Success Rates for Competing Research Career Programs (K Activities)
6.7 Total Dollars Awarded for Select Research Career Program Activities (K04, K08, K11)
6.8 Distribution of Research Career Program (K Activity) Awards by Institute/Center

Success Rates for NIH Competing Academic Research Enhancement Awards (R15) by Gender, FY1985-1993



	'85	'86	'87	'88	'89	'90	'91	'92	'93
Number of Applications*:	420	308	370	411	720	698	613	556	510

*Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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6.1 Academic Research Enhancement Awards (R15, AREA) Success Rates

The Academic Research Enhancement Awards (AREA, R15), initiated in FY 1985, are intended to support small-scale, institutional components (colleges). Awards are primarily to baccalaureate degree-granting, domestic institutions for a period not to exceed 36 months.

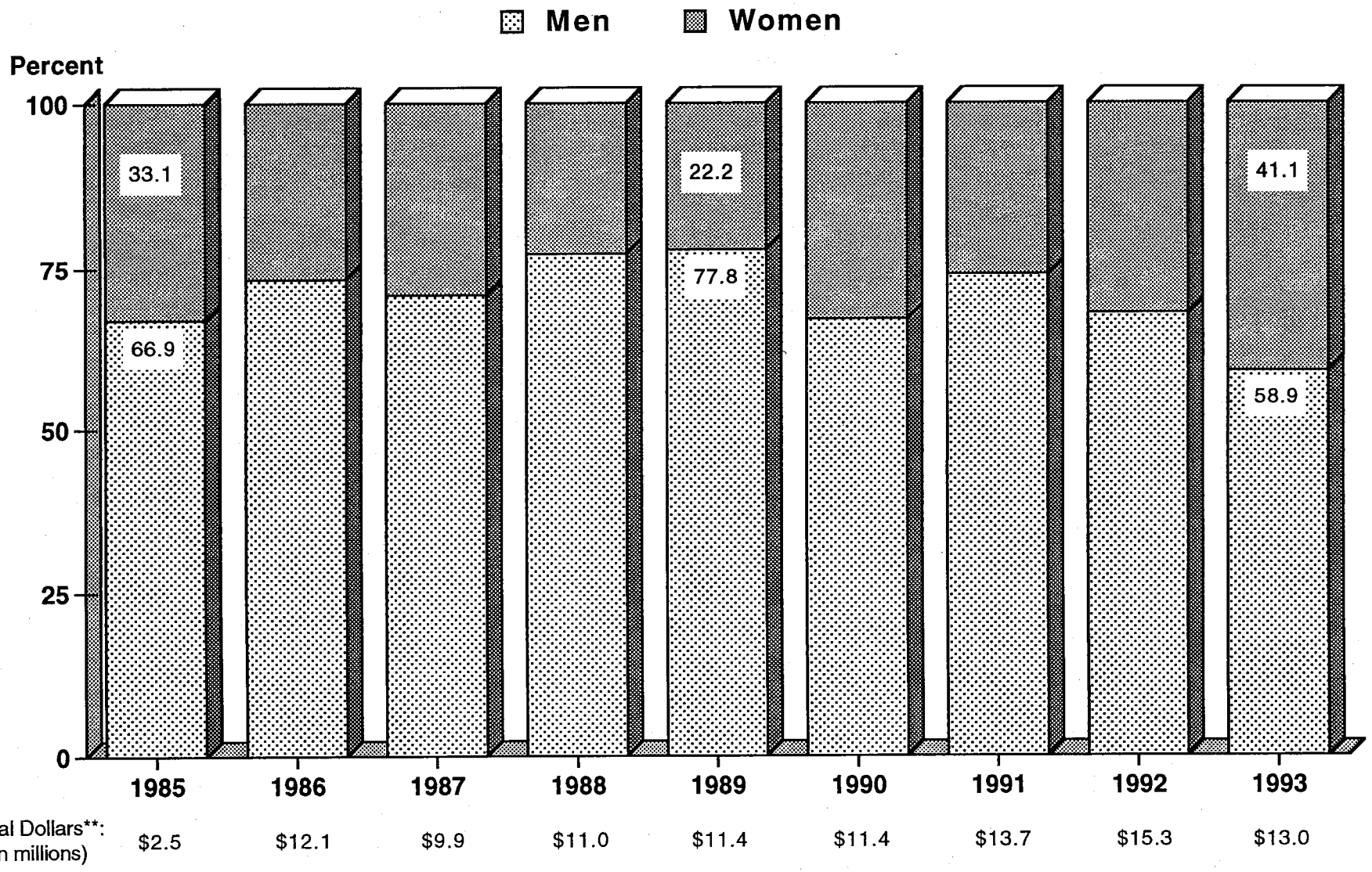
Success rates for R15 awards have fluctuated considerably over the FY 1985-1993 period. The FY 1993 success rate for women was 29.0 percent. The success rate for men, at 23.5 percent, was 5.5 percentage points lower. Success rates, for both men and women, were higher in FY 1993 than the lows recorded in FY 1989 and FY 1990 but considerably below the peak of FY 1986.

Academic Research Enhancement Awards (AREA, R15) Success Rates by Gender
Fiscal Years 1985-1993

	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	8.3	58.0	41.6	42.5	17.3	16.2	24.3	28.6	23.5
Female	10.9	65.7	37.0	34.5	12.7	16.9	18.3	26.1	29.0
All*	9.0	59.5	41.0	42.1	16.0	16.5	22.6	27.5	25.1

* All includes gender nonresponse.

Percent of Dollars Awarded for NIH Academic Research Enhancement Awards (R15)* by Gender, FY1985-1993



*Excludes nonresponse. **Includes nonresponse.
Source: NIH, DRG, ISB, SAES

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6.2 Number of R15, AREA Awards, and Total Dollars Awarded

The Academic Research Enhancement Award (AREA, R15) provides up to $75,000 in direct costs and approximately $100,000 in total costs for each award. The average award amount of approximately $100,000 has been fairly constant since FY 1989. Prior to FY 1989, average award total costs were considerably less, approximately $60,000. The number of R15 awards peaked in FY 1986 with 184, while the total dollars awarded peaked in FY 1992, with $15.3 million. The number of AREA awards, to all recipients, declined by 15.6 percent from FY 1992.

In FY 1993, women received 49 (40 percent) of the competing AREA awards, excluding nonresponse. This represented a considerable increase from the 32 percent women received in FY 1985. Women have also received a larger share of the R15 dollars awarded, from 33.1 percent in FY 1985 to 41.1 percent in FY 1993.

Number and Total* Dollars Awarded for Academic Research Enhancement Awards (AREA, R15) by Gender, FY 1985-1993

Number of Awards

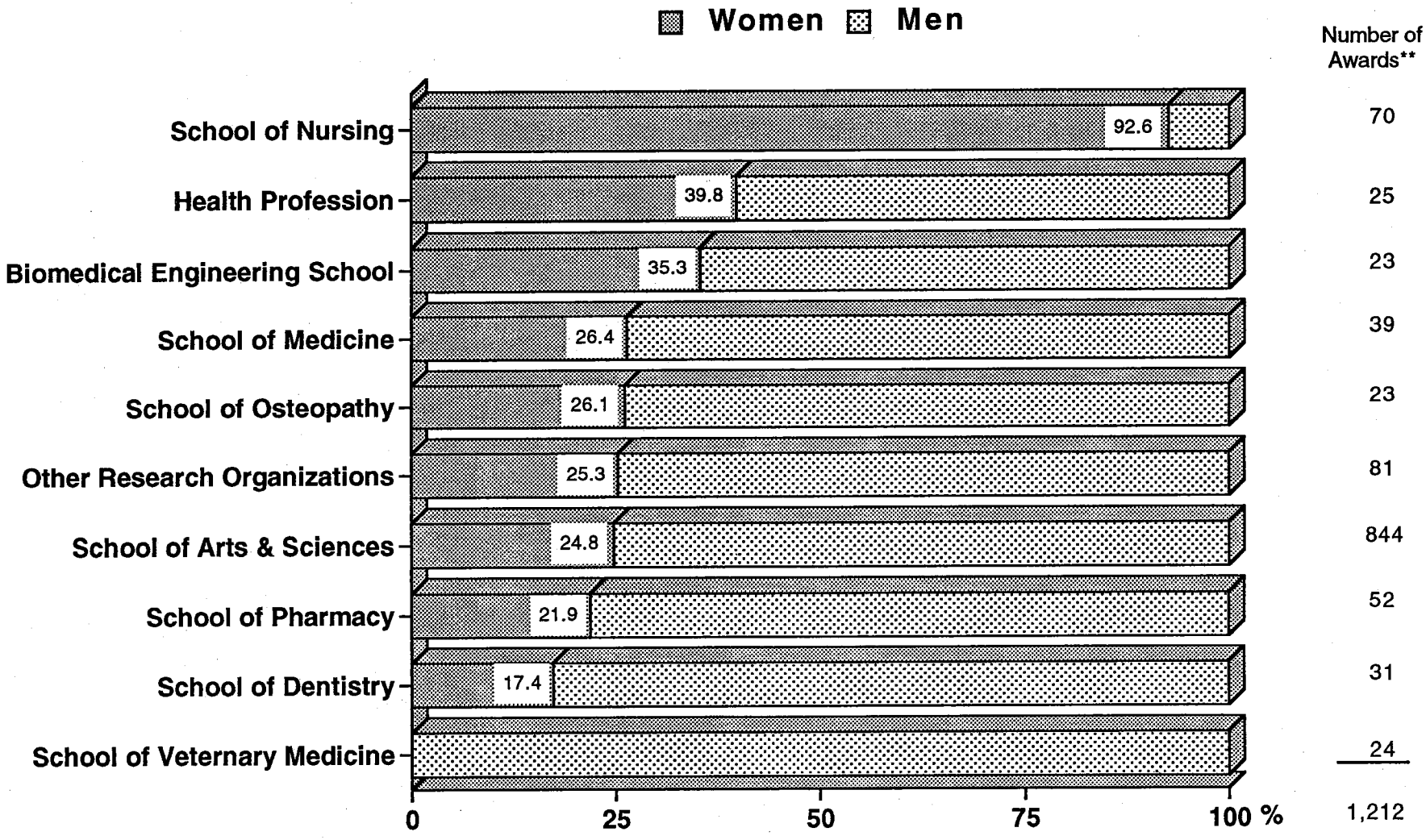
	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	25	126	92	121	88	76	101	102	74
Female	12	46	38	33	25	36	35	48	51
Total	38	184	153	174	119	119	141	154	130

Total Dollars Awarded (millions)

	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	1.6	8.3	5.9	7.5	8.4	7.2	9.8	10.1	7.3
Female	0.8	3.0	2.4	2.2	2.4	3.6	3.4	4.8	5.1
Total	2.5	12.1	9.9	11.0	11.4	11.4	13.7	15.3	13.0

* Totals include gender nonresponse.

Percent Distribution of Dollars Awarded for NIH Academic Research Enhancement Awards (R15)* by Kind of Organization and Gender, FY1985-1993



*Excludes gender nonresponse. **Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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6.3 Distribution of R15, AREA Awards by Kind of Organization

The distribution of dollars awarded for Academic Research Enhancement Awards (AREA, R15) by kind of organization was fairly disparate during the FY 1985-1993 period. As examples, schools of osteopathy awarded only $1.6 million in total awards versus $7.0 million from schools of nursing. Schools of arts and sciences awarded the largest total dollar amounts of R15 awards, $68.1 million.

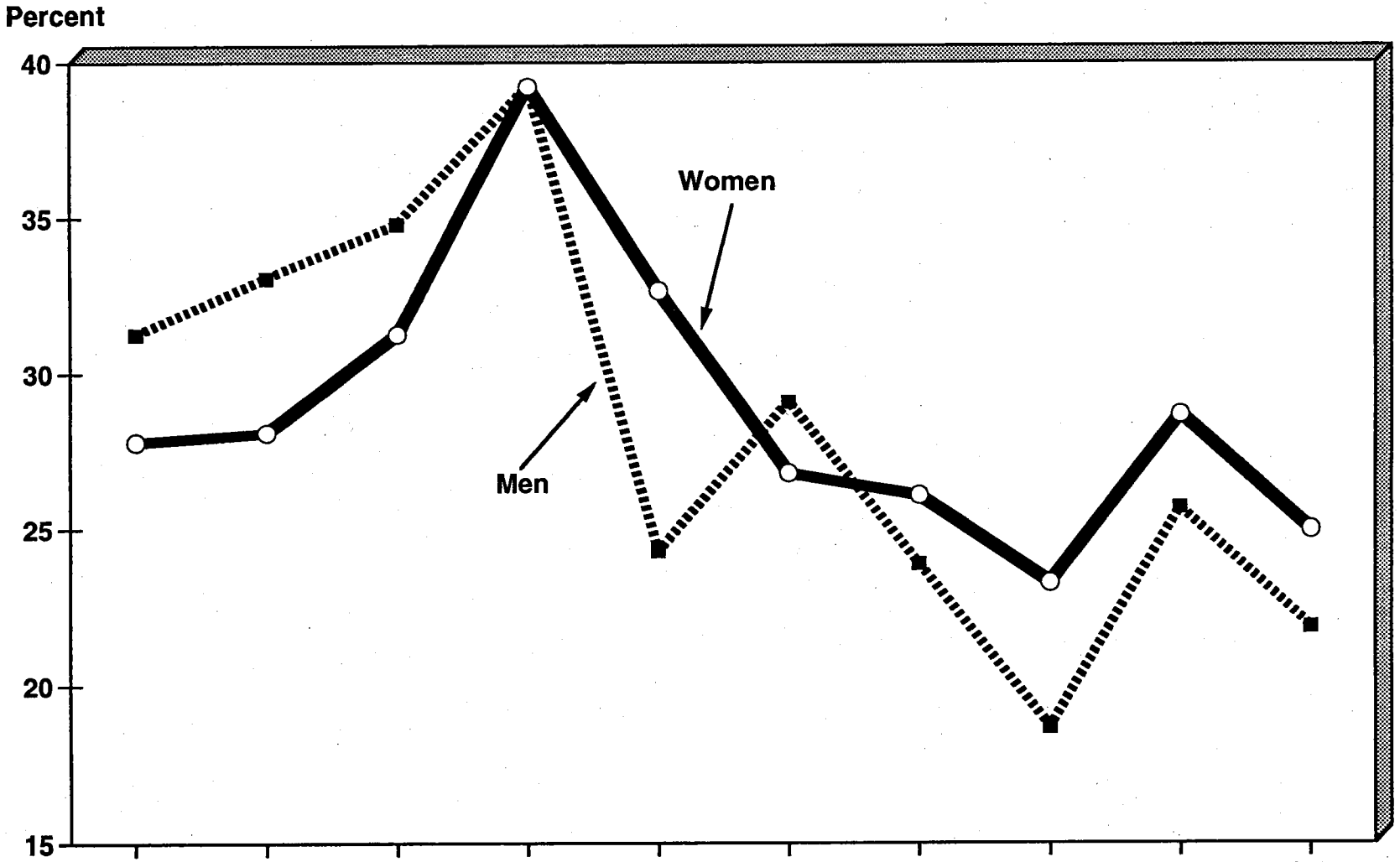
In the FY 1985-1993 period, women received 324 (29 percent) of the competing AREA awards funded, excluding nonresponse. Proportionately, women received the highest percentage of dollars awarded from schools of nursing, 92.6 percent. Women had the lowest representation from schools of veterinary medicine, where no awards were made to recipients identified as women during this period.

Distribution of Total R15 Dollars Awarded (in millions) by Major Component Code and Gender Fiscal Years 1985-1993

Kind of Organization	Men	Women	Total*
Other Research Organizations	4.45	1.51	6.46
School of Medicine	2.32	0.83	3.21
School of Dentistry	2.22	0.47	2.87
School of Osteopathy	1.03	0.36	1.61
School of Pharmacy	3.17	0.89	4.43
School of Nursing	0.50	6.25	7.05
Health Professions	1.18	0.78	2.14
Biomedical Engr/Colleges	1.55	0.85	2.40
School of Arts/Sciences	48.07	15.85	68.08
School of Veterinary Medicine	1.71	0	2.08
All	66.21	27.79	100.33

* Total includes gender nonresponse.

Success Rates for NIH Competing Small Research Grants (R03) by Gender, FY1985-1993



Number of Applications*:	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93
	769	810	586	494	642	595	723	1,258	1,098	1,138

*Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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6.4 Number of and Success Rates for Competing Small Research Grants (R03)

Small research grant (R03) awards are designed to provide research support for specific categorical areas with a limit on length and amount of award. These grants are generally for initiating studies and are nonrenewable.

In FY 1993, women received 78 (31.2 percent) of the competing R03 awards, excluding non-response. There was a slight decline in the total dollars allocated to R03 grants from FY 1992. However, the total dollars awarded for R03 grants have more than doubled from FY 1984 ($11.8 million versus $4.7 million). The average size of an R03 grant in FY 1993 was approximately $46 thousand.

The success rate for women was 25.0 percent in FY 1993. This exceeded the success rate for men by 3.1 percent, marking the fourth consecutive fiscal year in which women had higher success rates than men. Success rates, for both men and women, were lower in FY 1993 than in FY 1992, but higher than the ten-year lows recorded in FY 1991.

Number of Competing Small Research Grants (R03) and Success Rates by Gender, FY 1984-1993

Number of Awards

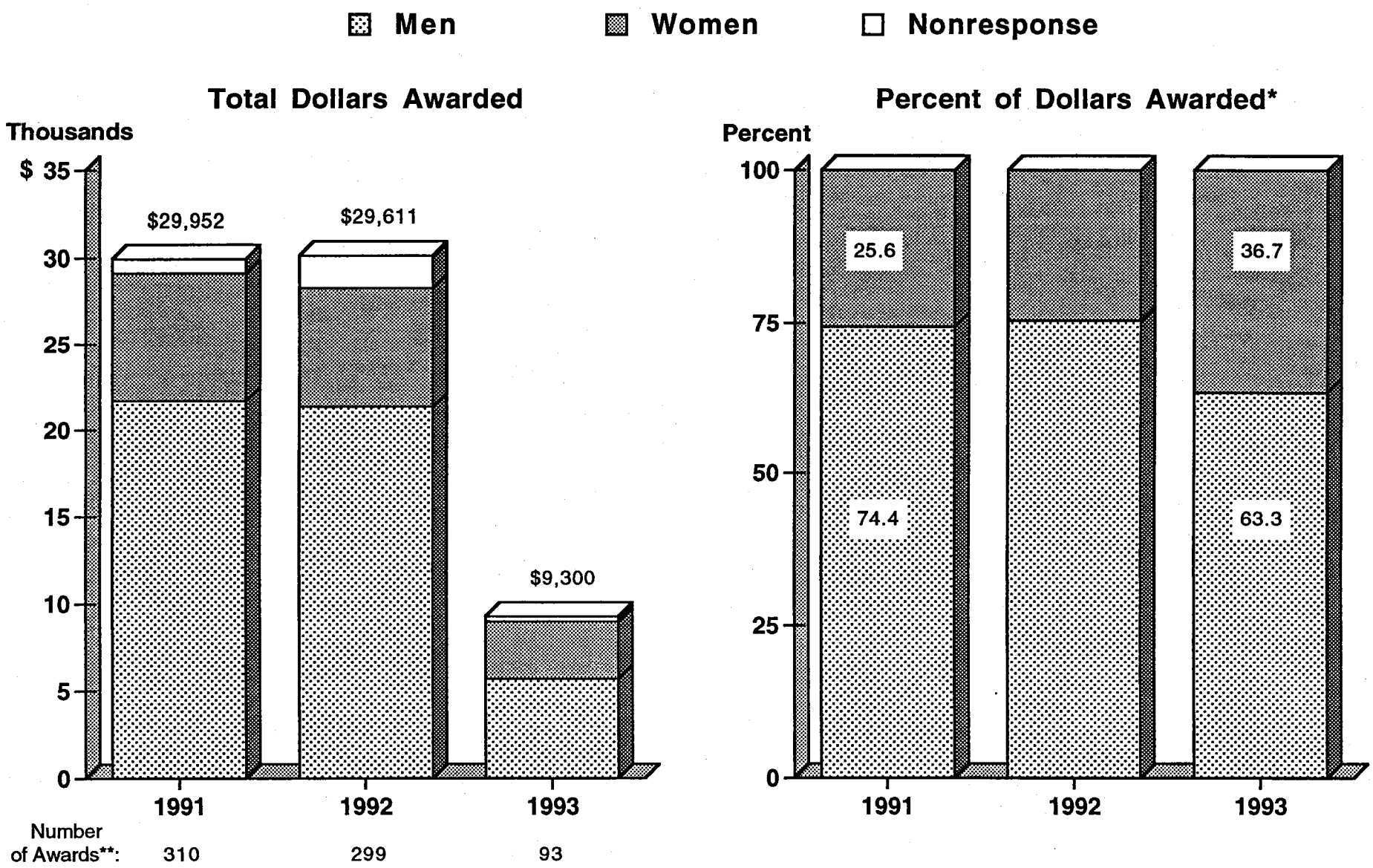
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	165	180	139	138	106	121	114	157	184	172
Female	55	64	50	49	52	40	48	79	85	78
Total*	230	257	200	201	254	171	182	252	296	256

Success Rates

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	31.3	33.1	34.8	39.2	24.3	29.1	23.9	18.7	25.7	21.9
Female	27.8	28.1	31.3	39.2	32.7	26.8	26.1	23.3	28.7	25.0
All	29.8	31.7	33.6	39.7	25.9	28.6	25.1	20.0	26.8	22.4

* Total/all includes gender nonresponse.

NIH James A. Shannon Director's Awards (R55)
FY1991-1993



*Excludes nonresponse. **Includes nonresponse.
Source: NIH, DRG, ISB, SAES

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6.5 Number of and Total Dollars Awarded for James A. Shannon Director's Awards (R55)

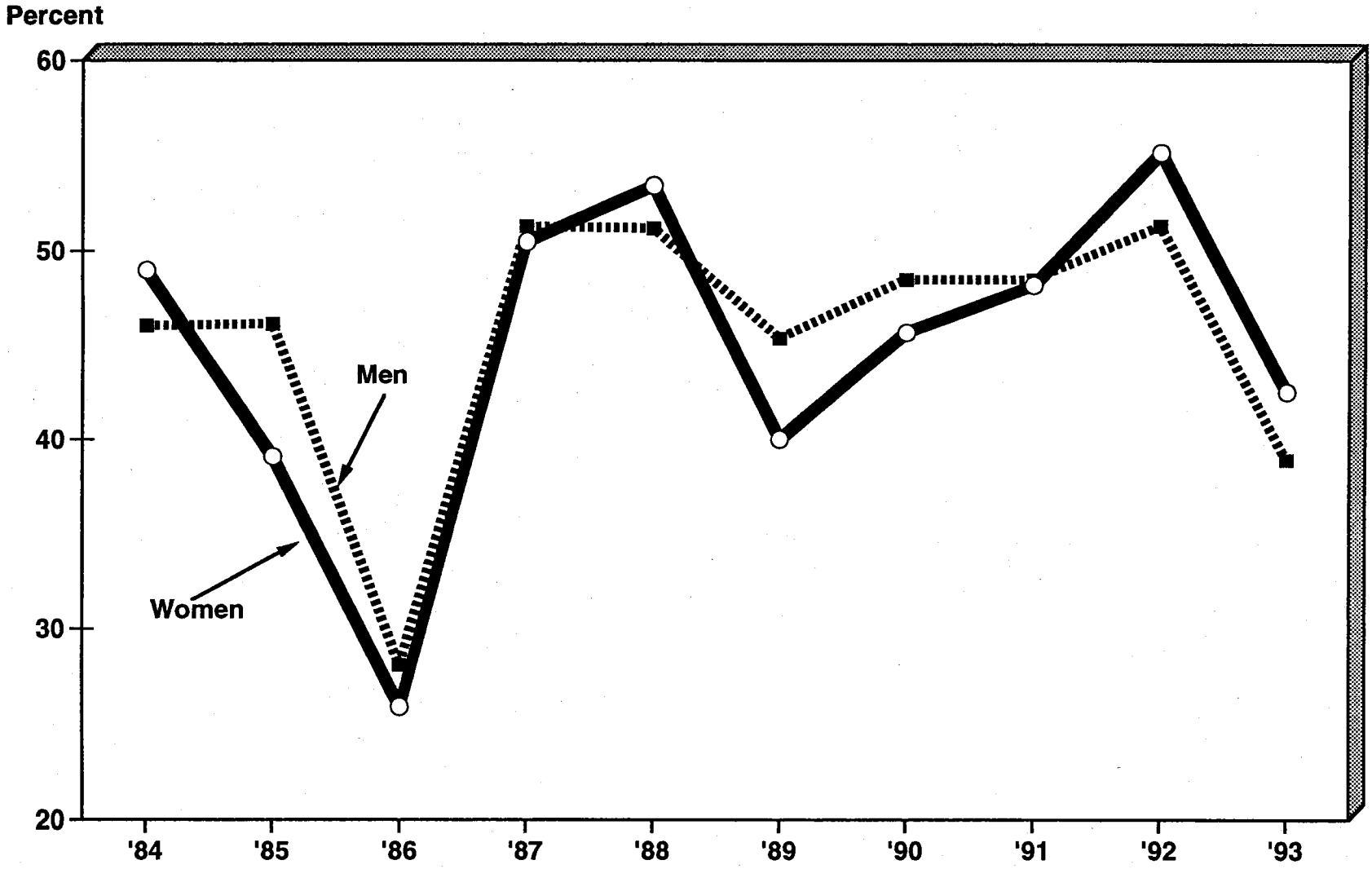
The James A. Shannon Director's Award (R55), initiated in FY 1991, provides a limited duration award to investigators to further develop, test, demonstrate and refine research techniques; test the feasibility of innovative and creative approaches; and conduct other discrete projects that lend additional weight to their already creditable applications. These awards are noncompeting, meritorious traditional research grant (R01) applications that did not receive R01 funding. Note that an investigator cannot apply for an R55 award but can receive one "indirectly" through submitting an R01 application. The average total cost for an R55 award is approximately $100,000, including direct and indirect costs, and does not exceed two years.

In FY 1993, women received 36.7 percent of the R55 awards (excluding nonresponse). There were 33 R55 awards made to women in FY 1993. The number of R55 awards to all recipients declined by 69 percent from FY 1992. A change in policy for R55 awards was introduced in FY 1993. In FY 1991 and FY 1992, funding came solely from the Office of the Director, NIH. For FY 1993, NIH institutes and the Office of the Director, NIH, co-funded R55 awards. This difference in funding procedure and the total dollars available is reflected in the data for FY 1993.

James A. Shannon Director's Award (R55), Fiscal Years 1991-1993

	Number of Awards			Total Dollars Awarded (in Millions)		
	1991	1992	1993	1991	1992	1993
Male	224	215	57	21.7	21.3	5.7
Female	78	71	33	7.5	7.0	3.3
Nonresponse	8	13	3	0.8	1.3	0.3
Total	310	299	93	30.0	29.6	9.3

Success Rates for NIH Competing Research Career Programs* (K Activities) by Gender, FY1984-1993



Number of Applications**:	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93
	754	938	1,036	807	677	748	774	743	806	976

*Excludes K10, K12, and K16 programs. **Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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6.6 Number of and Success Rates for Competing Research Career Programs (K Activities)

There are 16 specific research career programs (K activities), with the clinical investigator award (K08) being the most popular one. Each K activity is designed to support the development of an individual scientist in his/her chosen endeavor. The K activities correspond to the specific focus of the research and/or the characteristics of the researcher. For example, K11 activities support physicians in a clinical setting, K14 activities support investigators at minority schools, and K15 activities support dentists. Due to the large number of K activities and the relatively low dollar amounts awarded for many of the individual activities, data displayed include all K award funding for that fiscal year.

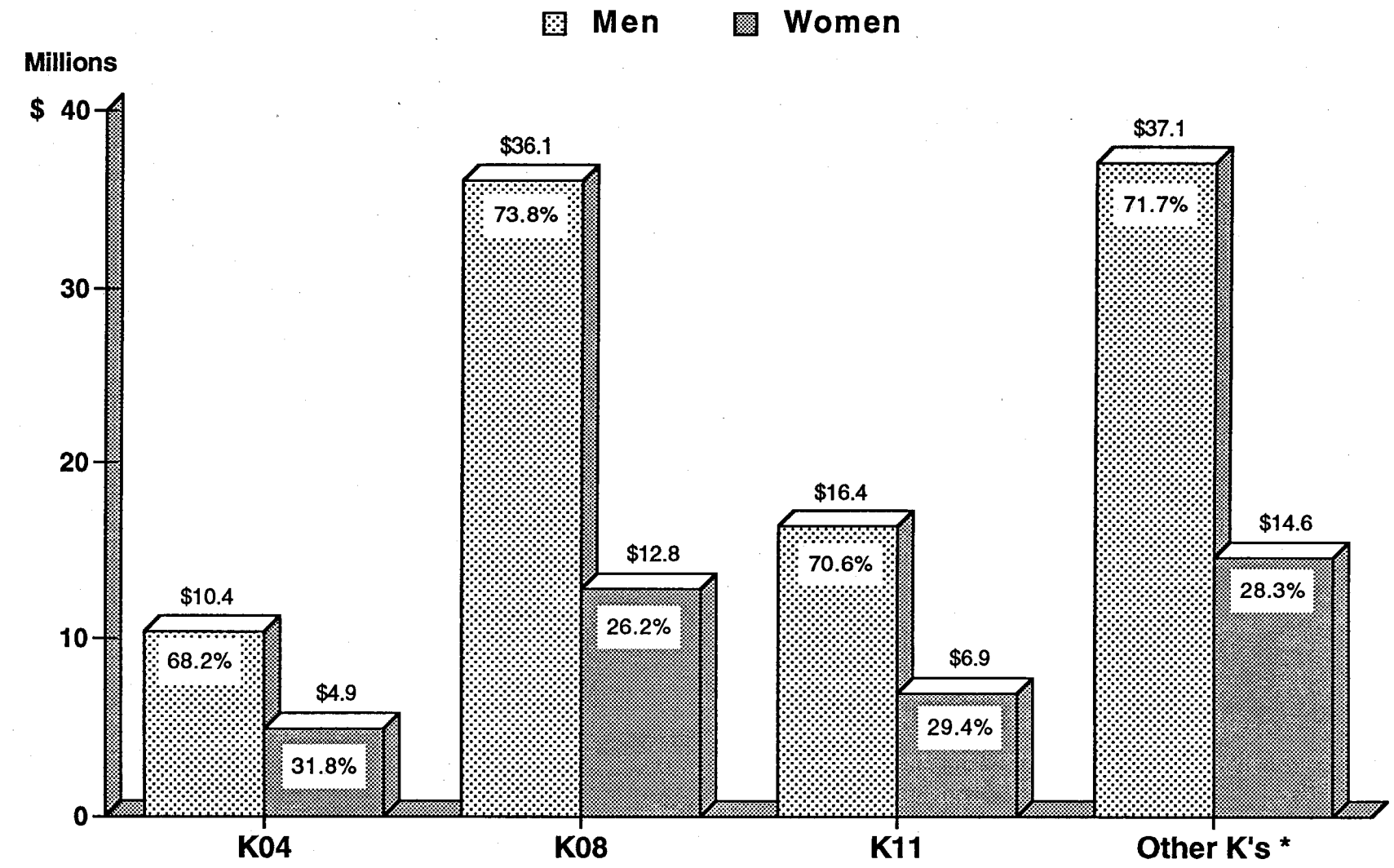
In FY 1993, women received 33.8 percent of the competing research career program awards, excluding nonresponse. There were 128 competing K awards to women in FY 1993. The success rate for women, over all K activities, was 42.5 percent, compared to 38.9 for men. This marked the second consecutive fiscal year in which women had a higher success rate than men for K awards.

Number of Competing Awards and Success Rates for Research Career Program Awards (K Activities) by Gender, FY 1984-1993

Number of Competing Awards*										
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	268	320	205	291	253	234	253	241	271	245
Female	70	75	65	108	78	76	86	93	113	128
Total	357	422	294	434	353	334	380	372	427	389
Success Rates										
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	46.1	46.2	28.1	51.3	51.2	45.4	48.5	48.5	51.3	38.9
Female	49.0	39.1	25.9	50.5	53.4	40.0	45.7	48.2	55.1	42.5
All	46.8	44.8	28.3	51.6	51.6	44.4	48.5	49.4	52.5	39.3

*Excludes K10, K12, K16 activities; total/all includes gender nonresponse.

Dollars Awarded for Selected Research Career Programs* (K Activities) by Gender, FY1993



	K04	K08	K11	Other K's *
Total Dollars**	$15.4	$51.0	$25.0	$53.6

*Other K activities are K01, K02, K05, K06, K07, K14, K15, K17, K20, and K21. **Total dollars includes gender non-response.
Source: NIH, DRG, ISB, SAES

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6.7 Total Dollars Awarded for Select Research Career Program Activities (K04, K08 and K11)

A research career development award (K04) is intended to foster the development of young scientists with outstanding potential for careers in independent research in the health sciences. Men received approximately two-thirds of the K04 award dollars in FY 1993.

The clinical investigator award (K08) is intended to provide the opportunity for promising medical scientists to develop as independent investigators, or for faculty members to pursue research in specific areas, or for scientists to aid academic faculty members within specific areas of the country. Men received approximately three-fourths of the K08 award dollars in FY 1993.

The physician scientist award (individual, K11) provides support to newly trained clinicians for development of independent research skills and experience in a fundamental science. In FY 1993, men received approximately 70 percent of the K11 dollars awarded.

Total Dollars Awarded (millions) for Selected Research Career Program Awards (K04, K08, K11 Activities) by Gender, FY 1984-1993

Modified Research Career Development Awards (K04)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	18.4	22.8	21.3	19.3	18.9	15.8	15.4	14.7	12.3	10.4
Female	4.2	5.4	5.2	4.9	4.7	4.5	4.9	5.1	5.1	4.9
Total	24.8	29.8	27.5	24.8	23.9	20.7	20.9	20.5	17.8	15.4

Clinical Investigator Award (K08)

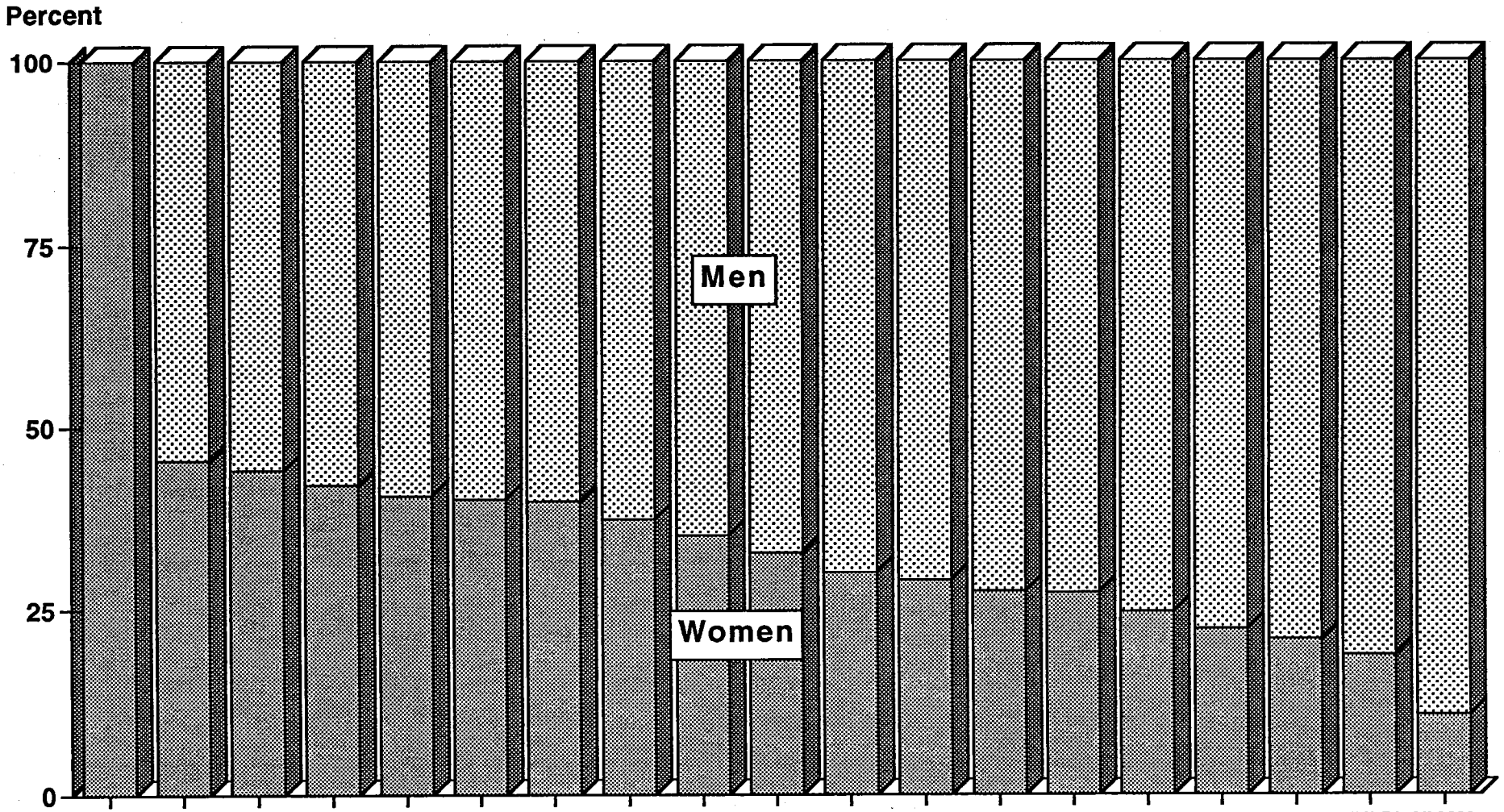
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	8.7	15.3	18.2	19.4	20.9	21.6	23.2	28.5	32.2	36.1
Female	1.7	2.9	3.7	5.4	6.0	5.9	6.6	9.1	10.2	12.8
Total	12.0	20.8	24.6	28.1	30.6	31.2	33.4	40.7	45.1	51.0

Physician Scientist Award (K11)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	1.4	4.4	6.9	9.7	12.7	14.1	14.8	18.1	17.9	16.4
Female	0.4	1.6	1.8	3.3	3.9	4.2	4.8	6.1	6.7	6.9
Total	2.1	6.6	9.9	14.9	18.9	20.8	22.4	26.8	26.9	25.0

* Total/all includes gender nonresponse.

Percent of Total Dollars Awarded for Research Career Programs (K 's)* by Institute/Center, FY1993



*Excludes K10, K12, and K16 programs.
Source: NIH, DRG, ISB, SAES

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6.8 Distribution of Research Career Program (K Activity) Awards by Institute/Center

Overall, NIH awarded men K activity awards totalling $100.1 million, women $39.1 million. In FY 1993, the National Heart, Lung and Blood Institute (NHLBI) provided the highest amount of funding for K awards ($29.6 million) with 360 awards. For women, the National Institutes of Mental Health (NIMH) awarded the highest dollar amount for K activities of any institute, $5.5 million. NIMH was also second in total K activity dollars awarded for both men and women at $24.9 million. NIMH granted a total of 256 K activity awards in FY 1993.

Total Research Career Programs (K Activity*) Awards (in million dollars) by Institute/Center, FY 1993

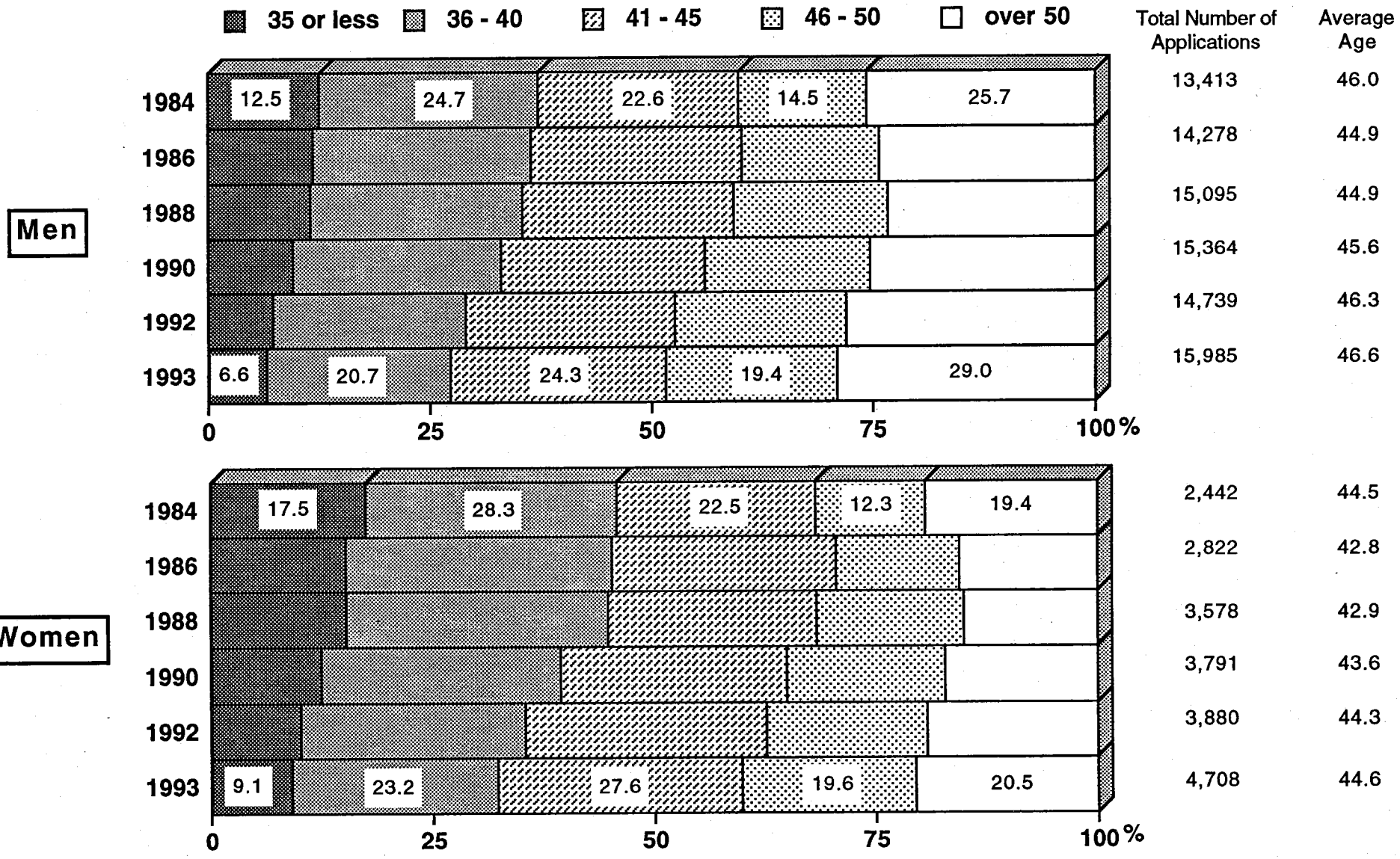
	Men	Women	Total		Men	Women	Total
NIAAA	1.9	1.5	3.4	NEI	0.9	0.3	1.3
NIA	4.0	2.2	6.6	NIGMS	1.1	0.1	1.3
NIAID	5.2	3.6	8.8	NICHD	3.3	2.2	6.0
NIAMS	3.3	1.6	5.2	NCHGR	0.4	0.3	0.8
NCI	7.8	3.2	11.4	NHLBI	22.5	5.2	29.6
NIDA	4.4	1.9	6.7	NIMH	19.0	5.5	24.9
NIDCD	2.0	1.2	3.3	NINR	0	1.3	1.3
NIDR	2.6	0.7	3.3	NINDS	10.6	3.5	14.4
NIDDK	9.2	3.5	13.5	NCRR	0.5	0.4	1.1
NIEHS	1.4	1.0	2.3	NIH	100.1	39.1	145.1

* Excludes K10, K12, K16; totals include gender nonresponse.

7. Principal Investigator Characteristics: R01 and R29 Applicants; R01, R29 and R37 Award Recipients

7.1 Distribution of Competing R01 and R29 Applications Reviewed by Age Group
7.2 Distribution of Competing R01, R29 and R37 Dollars Awarded by Age Group
7.3 Number and Average Dollar Size of Competing R01 and R29 Awards by Age Group
7.4 Success Rates for R01 and R29 Awards by Age Group
7.5 Success Rates by Degree Attained
7.6 Amount Requested Versus Awarded by Degree Attained and Award Type
7.7 Combined FY 1992 and FY 1993 Success Rates by Race/Ethnic Origin
7.8 Success Rates for R01 and R29 Applicants by Race/Ethnic Origin

Distribution of NIH Competing (R01* and R29) Research Project Grant Applications** by Gender and Age Group of Principal Investigator FY1984-1993†



*Includes R37 that were converted and previously reviewed as R01. **Excludes age and/or gender nonresponses.
†Selected years.
Source: NIH, DRG, ISB, SAES

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7.1 Distribution of Competing R01 and R29 Applications Reviewed by Age Group

From FY 1984 to 1993, there was a considerable decrease in the number of reviewed competing traditional research project grant (R01) and First Independent Research Support and Transition (R29) applications from principal investigators aged 35 or less, with the percent reduction approximately the same for both men and women. The proportion of male applicants aged 35 or less was just 6.6 percent in FY 1993, compared to 9.1 percent for women. As the younger age groups decreased in number, the older groups increased.

In FY 1993, 27.6 percent of the applications reviewed from women came from researchers in the 41 to 45 age group. For men, the largest proportion of applications reviewed were from applicants over age 50, 29.0 percent.

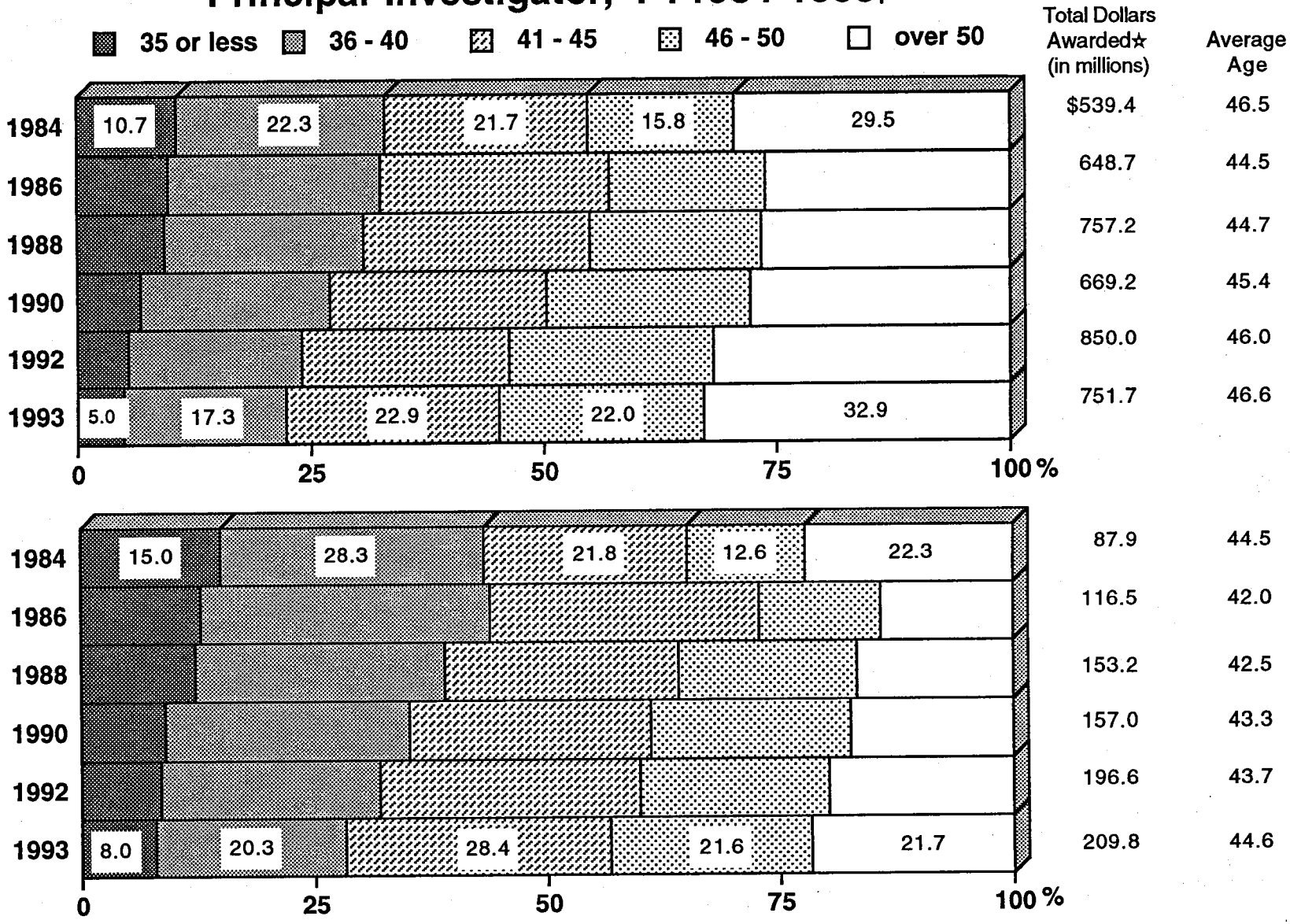
The age of both men and women applicants has generally increased from FY 1984 to 1993. Female investigators between the ages of 36 and 40 had the largest proportion of applications reviewed in FY 1984, 28.3 percent. In FY 1993, the age group with the greatest number of applications from women (27.6 percent) was the 41 to 45 group. In both FY 1984 and FY 1993, the largest percentage of applications reviewed was from men over age 50; this proportion increased from 25.7 percent in FY 1984 to 29.0 percent in FY 1993.

Distribution of Competing R01 and R29 Applications Reviewed (in percent) by Gender and Age, FY 1984 and FY 1993

Age Group	Fiscal Year 1984					Fiscal Year 1993				
	<= 35	36-40	41-45	46-50	>50	<= 35	36-40	41-45	46-50	>50
Male	12.5	24.7	22.6	14.5	25.7	6.6	20.7	24.3	19.4	29.0
Female	17.5	28.3	22.5	12.3	19.4	9.1	23.2	27.6	19.6	20.5
Total*	13.2	25.3	22.5	14.1	24.8	7.2	21.3	25.0	19.4	27.1

*Includes gender nonresponse.

Distribution of Dollars Awarded for NIH Competing (R01* and R29) Research Project Grants** by Gender and Age Group of Principal Investigator, FY1984-1993†



*Includes R37 that were converted and previously reviewed as R01. **Excludes age and/or gender nonresponses.
☆Includes age nonresponse. †Selected years.
Source: NIH, DRG, ISB, SAES

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7.2 Distribution of Competing R01, R29 and R37 Dollars Awarded by Age Group

From FY 1984 to 1993, the percentage of dollars awarded for competing R01, R29 and R37 awards decreased considerably for investigators 35 years of age or less. The percentage reduction from FY 1984 was approximately the same for both men and women. However, the proportion of dollars awarded to male applicants aged 35 or less was just 5.0 percent in FY 1993, compared to 8.0 percent for women.

In FY 1993, women in the 41 to 45 age group received the largest percentage of total dollars awarded to women, 28.4 percent. For men, the largest proportion of dollars awarded were to those aged 50 or older, 32.9 percent.

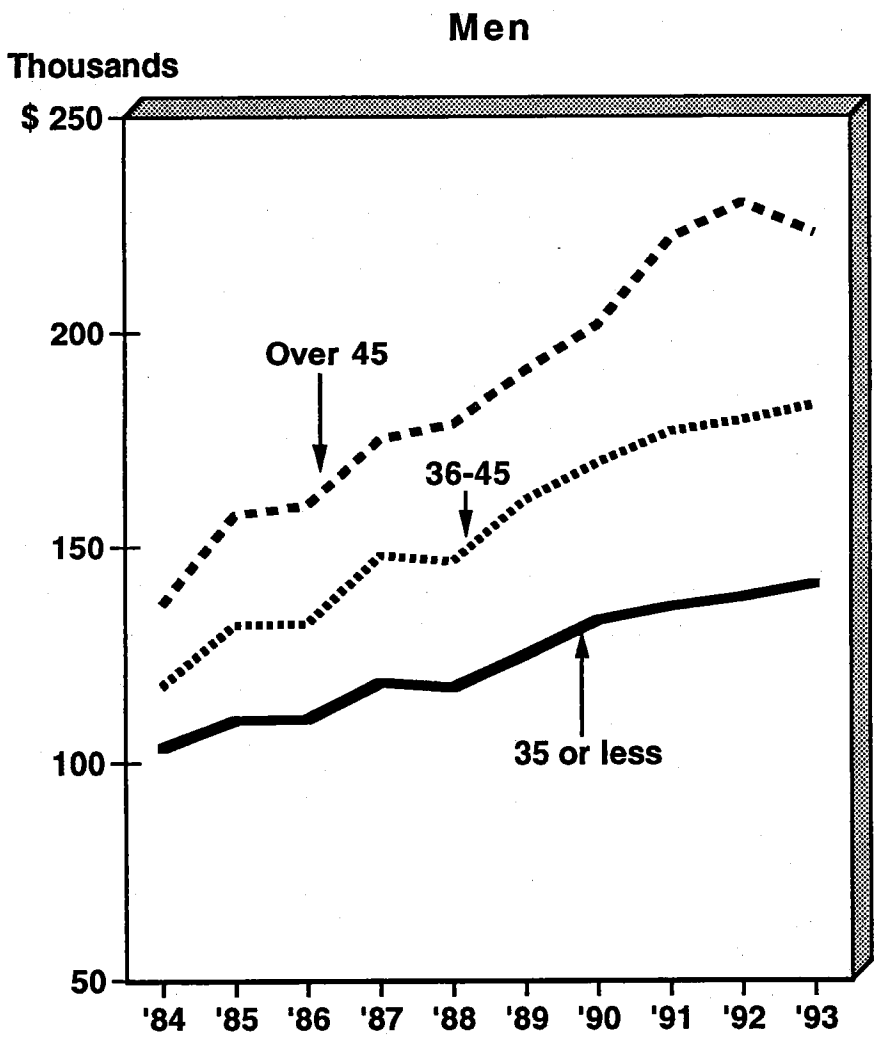
From FY 1984 to 1993, the proportion of dollars awarded to both men and women generally increased as age increased. Female investigators between the ages of 36 and 40 were awarded the largest percentage of dollars in fiscal year 1984, 28.3 percent. In FY 1993, female investigators aged 41-45 received the largest percentage of dollars awarded to women, 28.4. Men over age 50 received the largest proportion of dollars in both FY 1984 and FY 1993, 29.5 and 32.9, respectively.

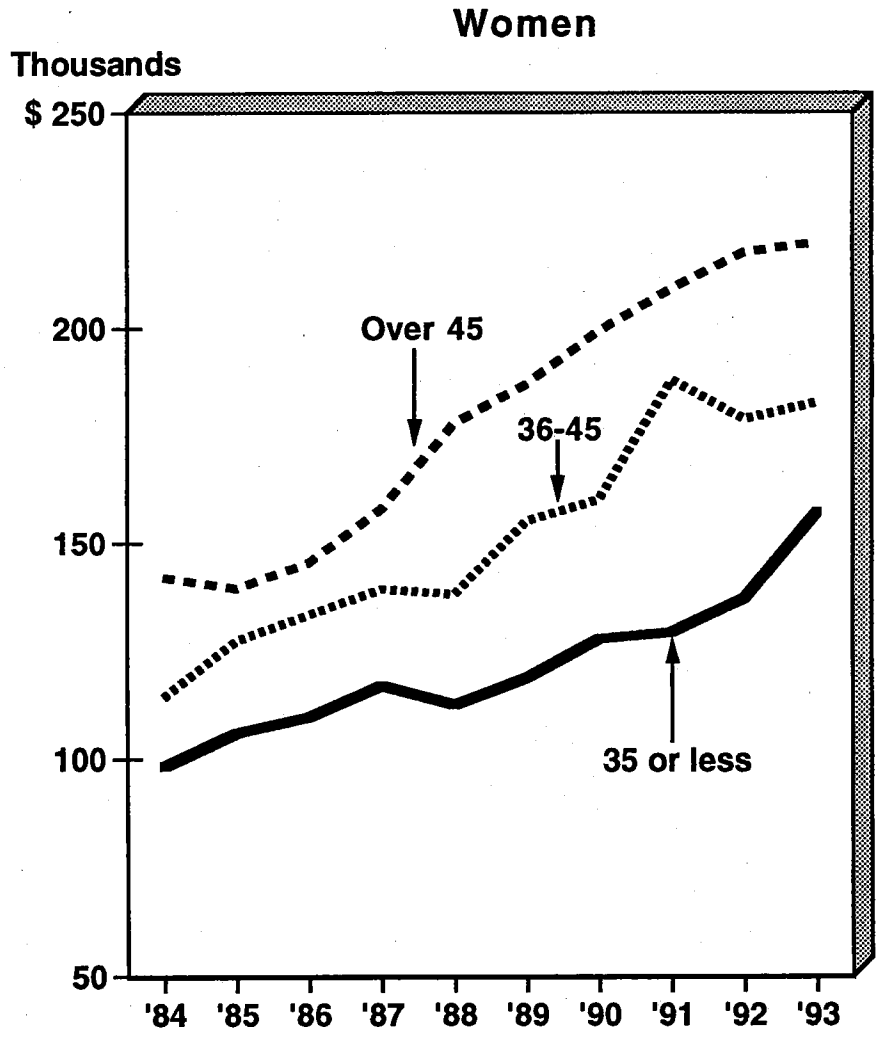
Percentage of Competing R01, R29 and R37 Dollars Awarded by Gender and Age, FY 1984 and FY 1993

Age Group	Fiscal Year 1984					Fiscal Year 1993				
	<= 35	36-40	41-45	46-50	>50	<= 35	36-40	41-45	46-50	>50
Male	10.7	22.3	21.7	15.8	29.5	5.0	17.3	22.9	22.0	32.9
Female	15.0	28.3	21.8	12.6	22.3	8.0	20.3	28.4	21.6	21.7
Total*	11.3	23.2	21.7	15.4	28.4	5.6	17.9	24.1	21.9	30.5

*Includes gender nonresponse.

Average Dollars Awarded for NIH (R01* and R29) Competing Research Project Grants by Gender and Age Group, FY1984-1993





*Includes R37 that were converted and previously reviewed as R01.
Source: NIH, DRG, ISB, SAES

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7.3 Number and Average Dollar Size of Competing R01 and R29 Awards by Age Group

In FY 1993, investigators over age 45 received the largest number of competing R01, R29 and R37 awards of any age group, 2,261 (1,829 for men; 402 for women). In FY 1984, the greatest number of competing awards went to investigators aged 36 to 45, 2,404.

From FY 1984 to 1993, the average dollar amount of competing R01, R29 and R37 awards increased most for women and men over age 45 ($77,800 and $86,500, respectively). In FY 1993, women less than 36 years of age were the only group in which the average award ($157,500) was larger than that for men in the same age group ($141,300). Men had a slightly higher average award in the 36-45 age group (+$400) and a considerably higher average in the over 45 age group (+$3,300).

Number of Competing R01 and R29 Awards by Age Group

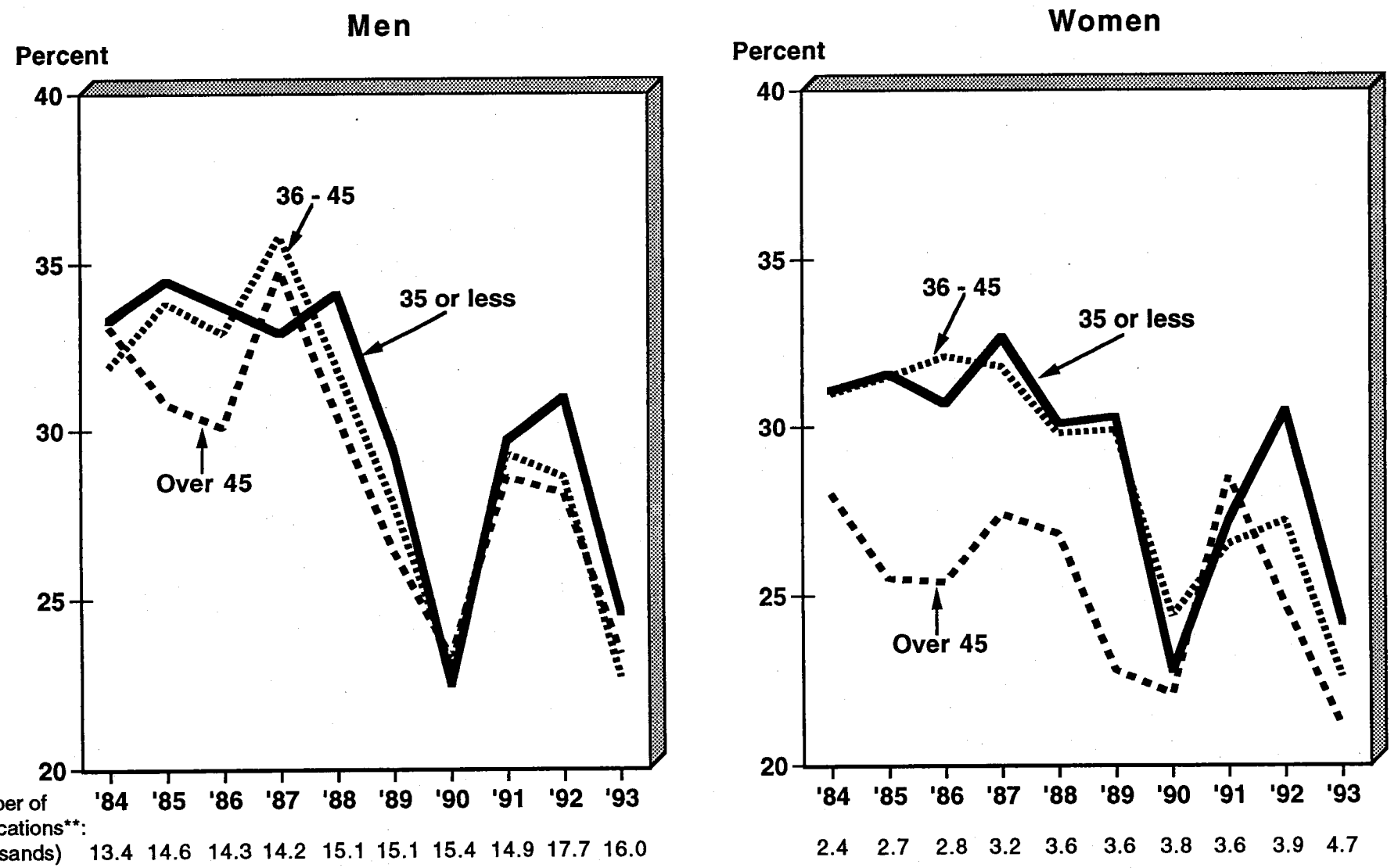
Age Group	Fiscal Year 1984			Fiscal Year 1993		
	<= 35	36-45	> 45	<= 35	36-45	> 45
Male	551	2,004	1,773	262	1,634	1,829
Female	132	381	214	104	544	402
Total*	694	2,404	2,014	376	2,218	2,261

Average Dollar Amount for Competing R01 and R29 Award (in thousands) by Age Group

Age Group	Fiscal Year 1984			Fiscal Year 1993		
	<= 35	36-45	> 45	<= 35	36-45	> 45
Male	103.4	117.5	136.5	141.3	183.0	223.0
Female	98.4	114.1	141.9	157.5	182.6	219.7
Total*	102.0	117.4	136.8	146.1	183.2	222.5

*Includes gender nonresponse.

Success Rates for NIH Competing (R01* and R29) Research Project Grants by Gender and Age Group, FY1984-1993



*Includes R37 that were converted and previously reviewed as R01. **Includes age nonresponse.
Source: NIH, DRG, ISB, SAES

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7.4 Success Rates for R01 and R29 Awards by Age Group

From FY 1984 to 1993, success rates for competing R01 and R29 awards decreased for both men and women in every age group. Generally, declines in success rates from FY 1984 were in the 7 to 9 percent range. In FY 1993, as in FY 1984, the under 36 age group had the highest success rates for both men and women.

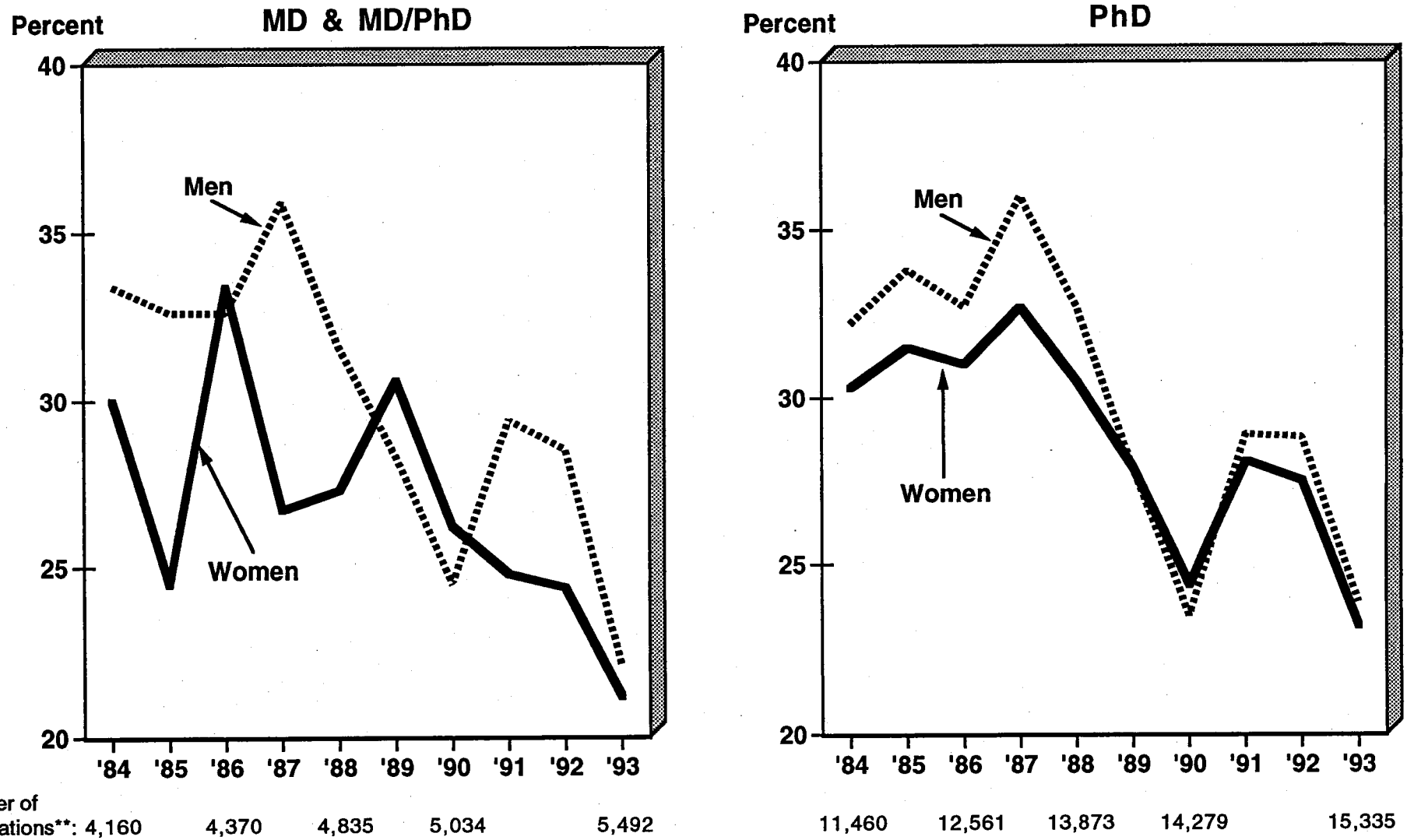
In FY 1993, there was little variation in success rates by gender within an age group. For example, in FY 1993 male applicants aged 36-45 had a success rate only 0.1 percent higher than that of female applicants. Also, there was little difference by gender in success rates for applicants below age 36. Applicants over age 45 had the greatest difference in success rates; those for men were 2.3 percentage points higher than those for women. This is considerably less than the FY 1984 difference of 5.1 percent.

Success Rates for Competing R01 and R29 Awards by Gender and Age Group, FY 1984 and FY 1993

Age Group	Fiscal Year 1984			Fiscal Year 1993		
	<= 35	36-45	> 45	<= 35	36-45	> 45
Male	33.3	31.9	33.1	24.6	22.7	23.4
Female	31.1	31.0	28.0	24.2	22.6	21.1
All*	32.7	31.7	32.3	24.3	22.5	22.8

*Includes gender nonresponse.

Success Rates for NIH Competing (R01* and R29) Research Project Grants by Degree and Gender of Applicant, FY1984-1993



*Includes R37 that were converted and previously reviewed as R01. **Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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7.5 Success Rates by Degree Attained

For FY 1993, both male and female applicants with Ph.D. degrees had slightly higher success rates for competing R01 and R29 awards than those with M.D. degrees. More awards were made to Ph.D. holders (3,636) than to M.D. holders (1,233). Independent of degree attained, male applicants had slightly higher success rates than female applicants. Overall, men received 3,758 awards compared with 1,068 received by women. The differences between male and female success rates for both Ph.D. and M.D. applicants were 0.7 and 0.9 percent, respectively. Investigators holding Ph.D. degrees had success rates of 23.9 percent for men and 23.2 percent for women in FY 1993.

The success rates for all R01 and R29 applicants over the FY 1984-1993 period do not indicate a clear relation between degree attained and success rate. Some fiscal years show higher success rates for M.D. applicants, and other years higher rates for Ph.D. applicants. The greatest difference in success rates over the period was just 1.6 percent.

Number of R01 and R29 Awards by Gender and Degree Held, FY 1993

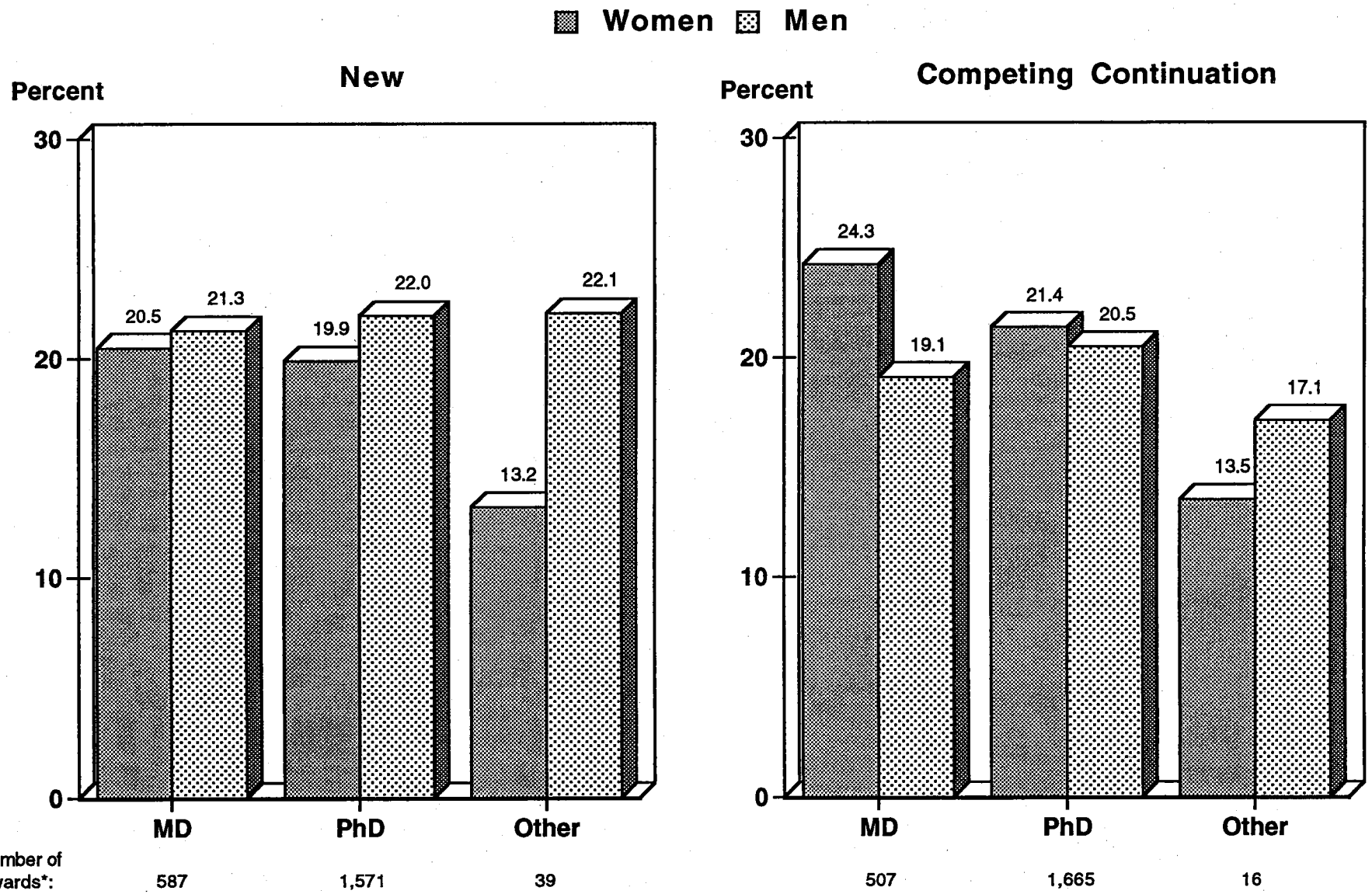
	MD*	PhD	Other	All
Male	1,046	2,677	35	3,758
Female	155	891	22	1,068
Total	1,233	3,636	59	4,928

Success Rates for R01 and R29 Applicants by Gender and Degree Held, FY 1993

	MD*	PhD	Other	All
Male	22.1	23.9	16.4	23.3
Female	21.2	23.2	10.8	22.3
All	21.9	23.5	13.5	22.9

* MD's include joint MD/PhD degree holders; totals include gender nonresponse.

Percent Reduction in Direct Cost Requested for NIH Competing Research Project Grants (R01 and R37) by Type of Award, Degree Held, and Gender, FY1993



*Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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7.6 Amount Requested Versus Awarded by Degree Attained and Award Type

In FY 1993, reductions to direct costs requested for Type 1 (new) awards differed between male and female recipients with M.D. degrees by 0.8 percent. Awards to recipients with Ph.D. degrees differed more by gender. Men had their requests reduced by an average of 22.0 percent, while requests from women were reduced by 19.9 percent. Female Ph.D. awardees also requested more than their male counterparts, $176.8 vs. $162.8 thousand. For FY 1993, women with a M.D., Ph.D., and/or other degree, receiving Type 1 awards, requested more in direct costs than men.

For Type 2 (competing continuation) award recipients, women had a higher percent reduction in requested direct costs than men for both M.D. and Ph.D. degree holders. Men and women awardees with M.D. degrees showed a greater difference in average percent reduction for Type 2 awards than for Type 1 awards in FY 1993 (5.2 vs. 0.8 percent). Award recipients with Ph.D. degrees differed less by gender; direct cost requests from women were reduced by 0.9 percent more than those from men. Excluding gender nonresponse, men with M.D. degrees requested the highest dollar amount for Type 2 awards in FY 1993.

Average Percent Reduction in Requested Direct Costs for R01 and R37 Type 1 (New) Awards by Gender and Degree, FY 1993

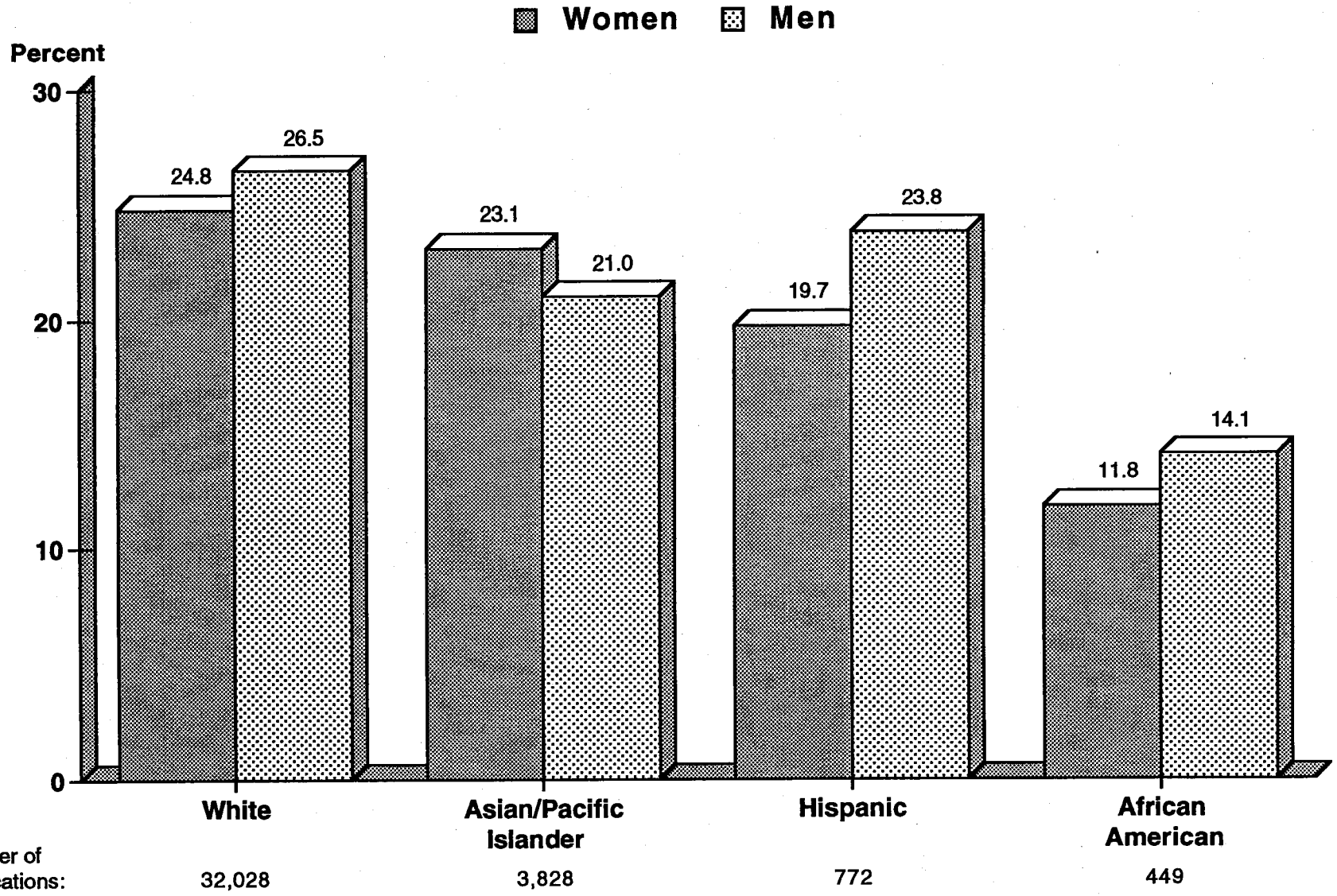
	MD	PhD	Other	All
Male	21.3	22.0	22.1	21.8
Female	20.5	19.9	13.2	19.7
All	21.2	21.3	17.4	21.2

Average Percent Reduction in Requested Direct Costs for R01 and R37 Type 2(Competing Continuation) by Gender and Degree, FY 1993

	MD	PhD	Other	All
Male	19.1	20.5	17.1	20.0
Female	24.3	21.4	13.5	21.7
All	19.7	20.6	15.9	20.3

Average Success Rates for Competing (R01* and R29) Research Project Grants by Race/Ethnic Origin and Gender

Combined FY1992 and FY1993



Note: Native American not shown because of small (86) number. *Includes R37 that were converted and previously reviewed as R01.
Source: NIH, DRG, ISB, SAES

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7.7 Combined FY 1992 and FY 1993 Success Rates by Race/Ethnic Origin

The R01 and R29 success rates for FY 1992 and FY 1993 indicate that white males and Native American females (see paragraph 2) had the highest success rates in the combined FY 1992-1993 period. African American investigators had the lowest R01 and R29 success rates for the same time period.

Note: two fiscal years were combined to provide a larger sample from which to derive success rates. Nevertheless, some ethnic origin/gender combinations had relatively low numbers of applications reviewed and awards funded. For example, female Native Americans had only 21 applications reviewed with 6 awarded, compared to 25,130 applications reviewed from white male applicants (6,668 awarded) over the same time period. Thus, the differences in success rates evidenced below may be due, at least in part, to the wide disparity in the number of applications reviewed.

Number of R01 and R29 Competing Awards Funded, FY 1992 and FY 1993 Combined, by Ethnic Origin

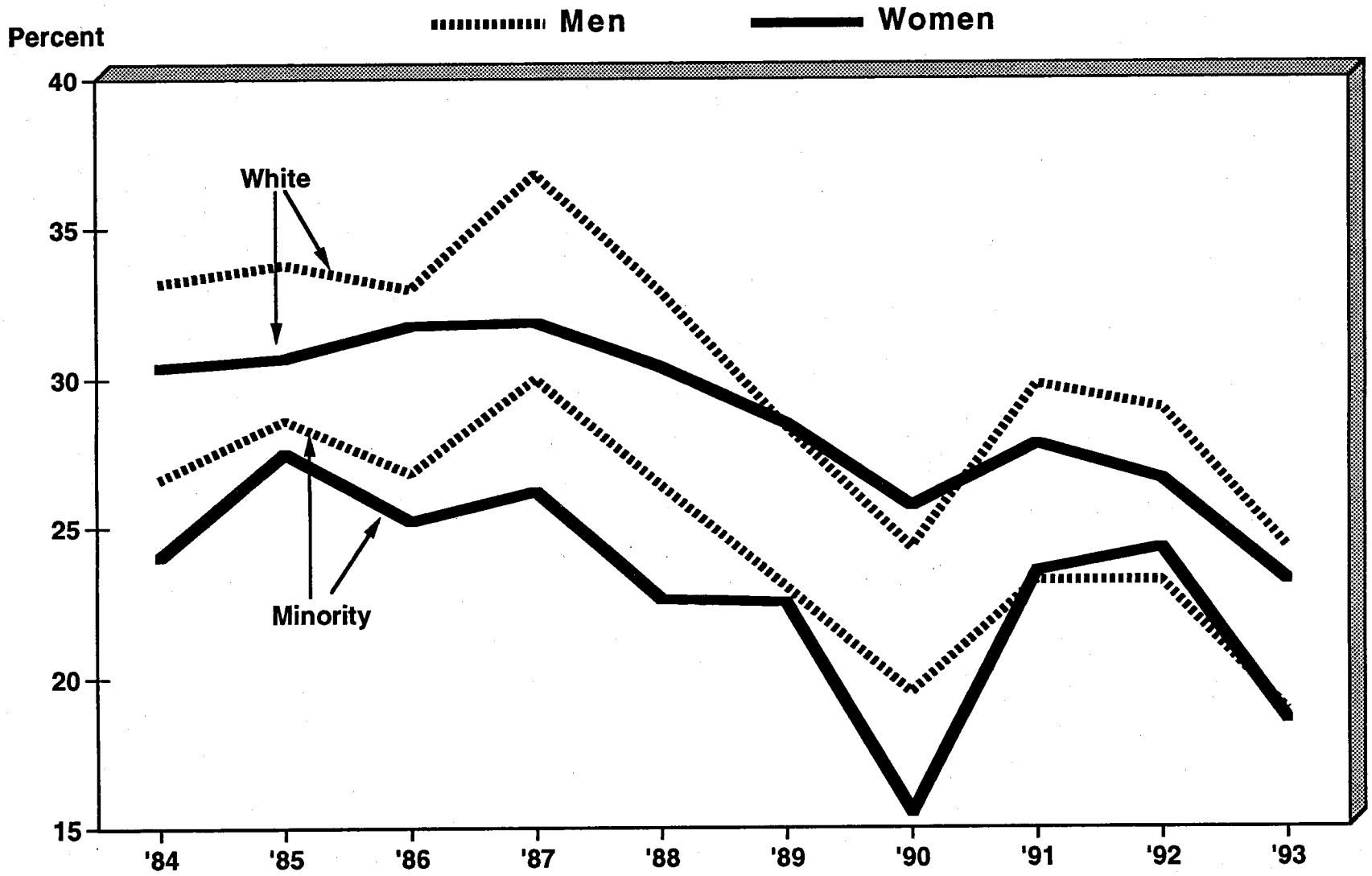
	Native American	Asian	African American	Hispanic	White
Male	16	660	45	146	6,668
Female	6	164	18	35	1,779
Total*	24	858	68	198	9,129

Success Rates for R01 and R29 Awards, FY 1992 and FY 1993 Combined, by Ethnic Origin

	Native American	Asian	African American	Hispanic	White
Male	25.3	21.0	14.1	23.8	26.5
Female	28.6	23.1	11.8	19.7	24.8
All*	26.1	21.4	13.3	22.9	26.1

Note: FY 1992 and FY 1993 are combined to provide a larger sample; all/total (*) includes gender nonresponse.

Success Rates for NIH Competing (R01* and R29) Research Project Grants by Race/Ethnic Origin and Gender, FY1984-1993



Number of Applications**:	16,113	17,553	17,354	17,760	19,191	19,165	19,711	18,955	19,524	21,247

*Includes R37 that were converted and previously reviewed as R01. **Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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7.8 Success Rates for R01 and R29 Applicants by Race/Ethnic Origin

From FY 1984 to 1993, white applicants have consistently shown success rates of approximately 5 to 6 percent higher than those of minority applicants for R01 and R29 awards. In FY 1993, when ethnic origin and gender are considered together, white male applicants had the highest success rate, 24.3 percent. Male and female minority applicants had the lowest success rate, 18.9 percent, a difference of 5.4 percent.

The definition of "minority" here includes Native American, Asian or Pacific Islander, African American, and Hispanic applicants.

Over the FY 1984-1993 period, white male applicants have had success rates of 4.8 to 6.8 percent higher than minority male applicants. For female applicants, the difference in success rates by ethnic origin ranged from a low of 2.3 percent in FY 1992 to a high of 10.2 percent in FY 1990.

Success Rates of Male R01 and R29 Applicants by Ethnic Origin/Race, FY 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
White	33.2	33.8	33.0	36.8	32.9	28.4	24.3	29.8	29.0	24.3
Minority	26.6	28.6	26.8	30.0	26.4	23.0	19.5	23.2	23.2	18.9
All*	32.5	33.2	32.5	35.9	32.2	27.8	23.7	29.0	28.7	23.3

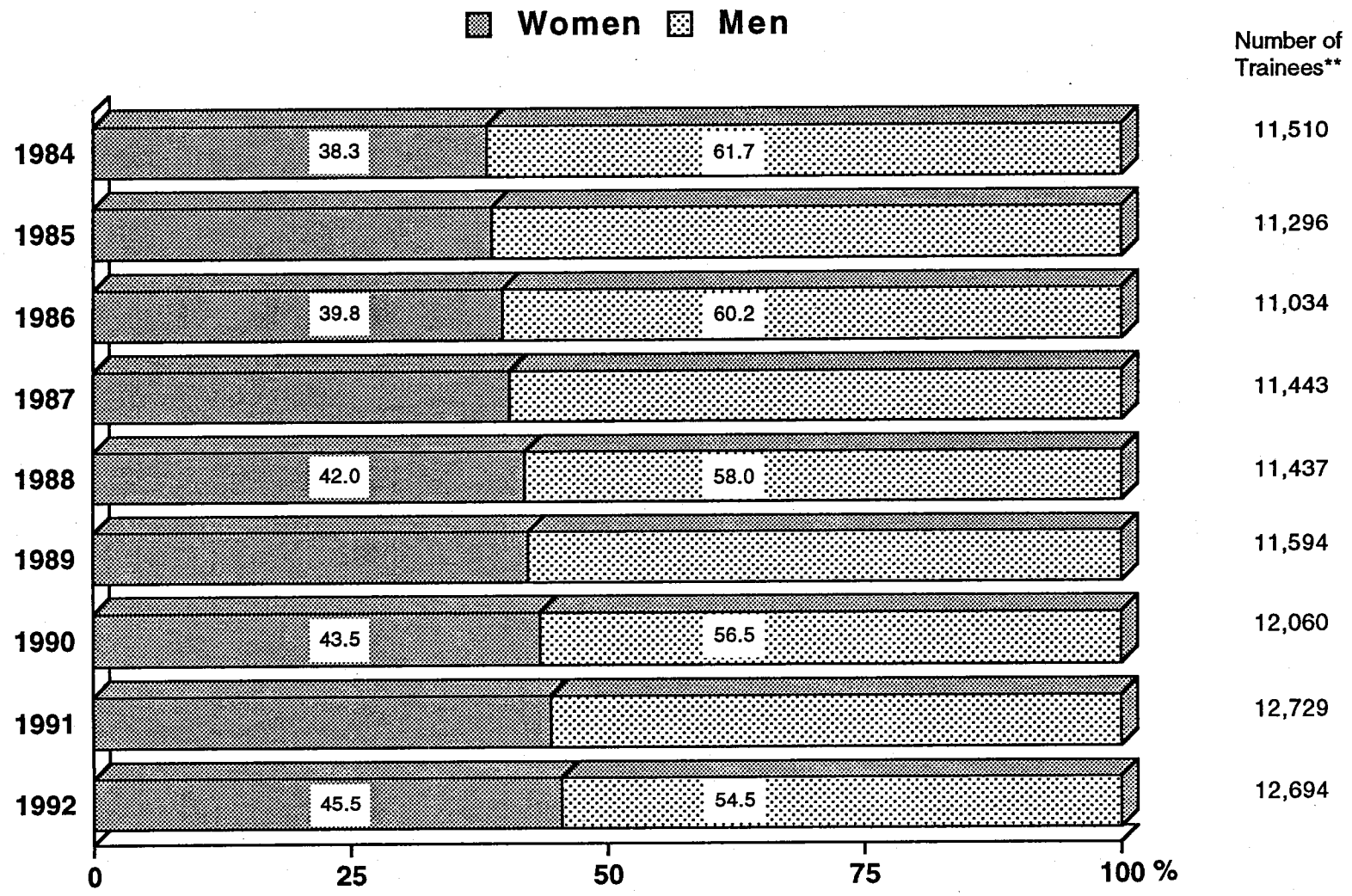
Success Rates of Female R01 and R29 Applicants by Ethnic Origin/Race, FY 1984-1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
White	30.4	30.7	31.8	31.9	30.4	28.5	25.7	27.8	26.6	23.2
Minority	24.0	27.5	25.2	26.2	22.6	22.5	15.5	23.5	24.3	18.9
All*	29.9	30.2	31.0	31.3	29.6	27.9	24.3	27.3	26.7	22.3

8. Training Grants and Fellowships

8.1 Distribution of Institutional Trainee Appointments by Fiscal Year
8.2 Distribution of Trainee Appointments by Institute
8.3 Number of Individual Fellowships Awarded by Fiscal Year
8.4 Distribution of Individual NRSA F31 and F32 Fellowships by Age Group
8.5 Distribution of Individual F31 Fellowships by Institute
8.6 Distribution of Individual F32 Fellowships by Institute
8.7 Success Rates for Competing Predoctoral Individual NRSA (F31) Fellowships
8.8 Success Rates for Competing Postdoctoral Individual NRSA (F32) Fellowships

Percent Distribution of NIH Training Grants* by Gender, FY1984-1992



*Excludes gender nonresponse. **Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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8.1 Distribution of Institutional Trainee Appointments by Fiscal Year

Institutional trainee appointments are largely comprised of the institutional National Research Service Award (NRSA), T32 program, and the NRSA short-term research training award, T35 program. The T32 program enables an institution to make NRSA awards to selected individuals for predoctoral and postdoctoral research training in areas identified with a shortage of scientific research personnel. The T35 program provides research training during the summer months or off-quarter periods to encourage individuals to pursue research careers in scientific areas of need.

In FY 1992, women comprised 45.8 percent of all institutional trainee appointments. Female representation has increased steadily since FY 1985, when 38.3 percent of the trainees were women. For both men and women, FY 1992 appointments were slightly below the number appointed in FY 1991. During the FY 1984-1992 period, the number of female institutional trainees peaked at 5,760 in FY 1992, while the number of men peaked at 7,101 in FY 1984. Note that data presented represent number of appointments, not Full-Time Equivalents (FTE's).

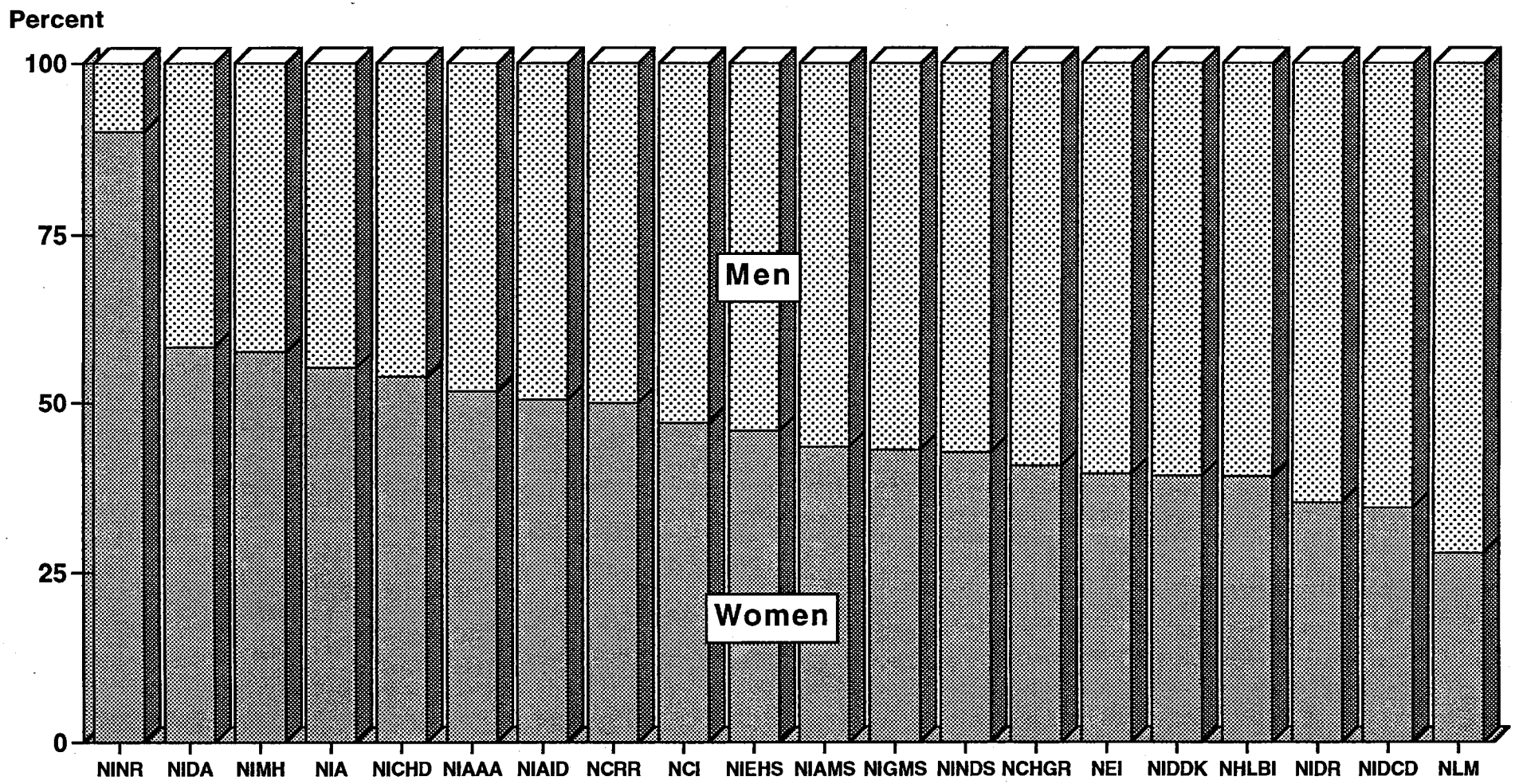
Because of incomplete data prior to publication, trainee appointment data for FY 1993 have been excluded.

Number of NIH Training Appointments by Gender, Fiscal Years 1984 - 1992

	1984	1985	1986	1987	1988	1989	1990	1991	1992
Male	7,101	6,913	6,640	6,804	6,607	6,656	6,754	7,025	6,904
Female	4,407	4,380	4,393	4,632	4,786	4,882	5,210	5,636	5,760
Total*	11,510	11,296	11,034	11,443	11,437	11,594	12,060	12,729	12,694

*Total includes gender nonresponse.

Distribution of NIH Training Grants, FY1992 by Institute/Center and Gender



*Excludes gender nonresponse. **Includes gender nonresponse
Source: NIH, DRG, ISB, SAES

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8.2 Distribution of Trainee Appointments by Institute

In FY 1992, the National Institute of General Medical Sciences (NIGMS) awarded the greatest number of institutional NRSA's, 4,104, and the greatest number to women, 1,759. The National Heart, Lung and Blood Institute (NHLBI) was second with 700 female trainee appointments. The National Institute of Nursing Research (NINR) had the highest proportion of female appointments (90 percent). The National Library of Medicine (NLM) had the least female trainee representation, 27.8 percent.

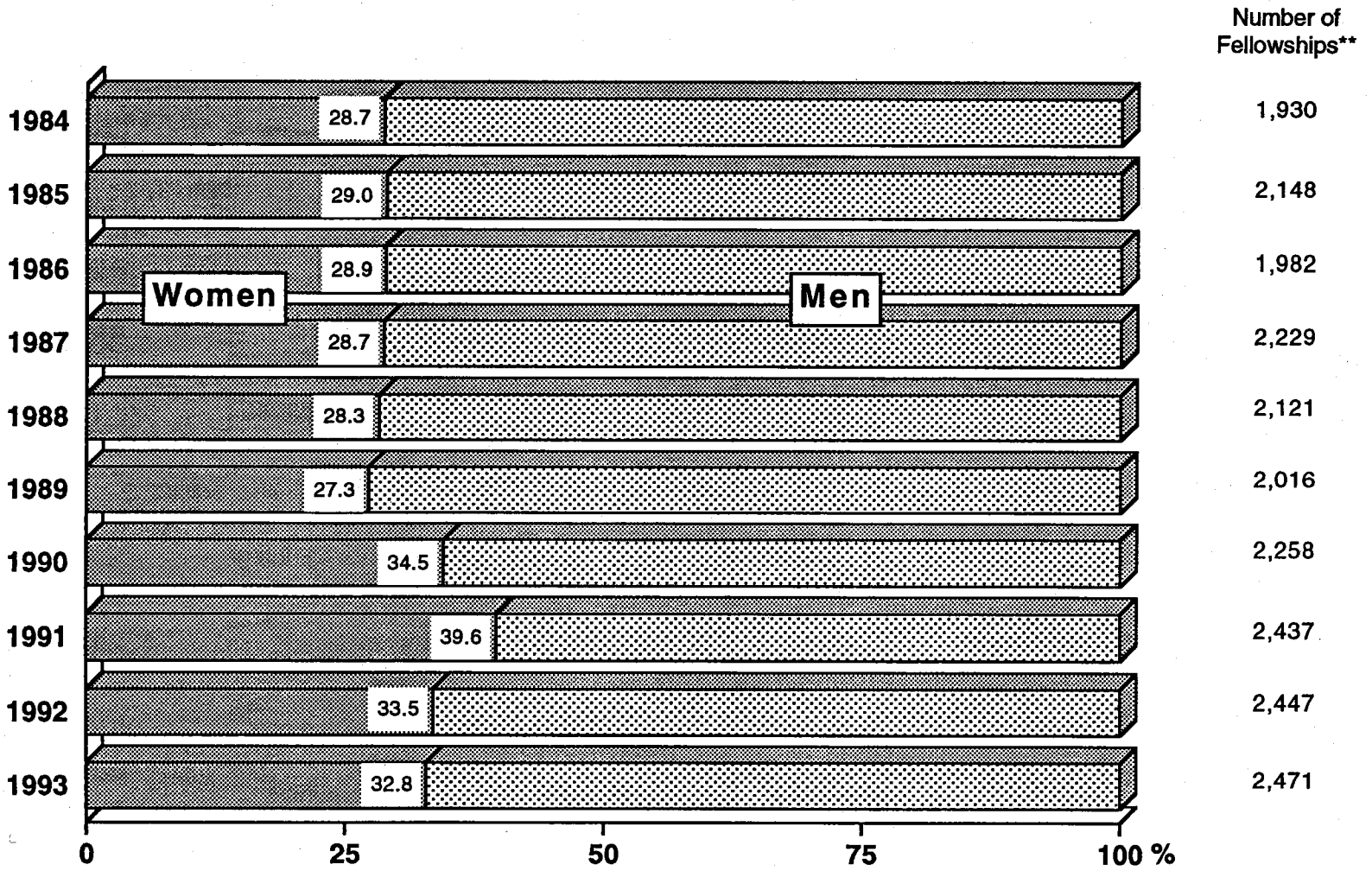
Number of Trainee Appointments by Institute/Center and Gender
Fiscal Year 1992

I/C	Men	Women	Total*	I/C	Men	Women	Total
NIAAA	58	62	120	NEI	109	71	180
NIA	173	213	387	NIGMS	2,334	1,759	4,104
NIAID	328	334	662	NICHD	292	342	636
NIAMS	77	59	136	NCHGR	19	13	33
NCI	683	605	1,291	NHLBI	1,094	700	1,799
NIDA	85	119	204	NIMH	446	607	1,056
NIDCD	82	43	125	NINR	8	72	80
NIDR	183	99	284	NINDS	179	133	312
NIDDK	410	263	673	NCRR	36	36	72
NIEHS	243	205	450	NIH**	6,904	5,760	12,694

* Totals include gender nonresponse.

** Totals include 65 male and 25 female trainees from the National Library of Medicine (NLM).

Percent Distribution of Awards for NIH Individual Fellowships* by Gender, FY1984-1993



*Excludes gender nonresponse. **Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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8.3 Number of Individual Fellowships Awarded by Fiscal Year

Generally, fellowships provide support for young to mid-career scientists to pursue research opportunities. For FY 1993, most of the fellowships awarded were postdoctoral individual NRSA fellowships (F32), followed by predoctoral individual (NRSA) fellowships (F31).

Since FY 1984, women received an increased share of fellowship support. In terms of numbers of fellowships (excluding gender nonresponse), women received 32.8 percent (790) of the awards in FY 1993, up from 28.7 percent in FY 1984. Women received 30.9 percent of the NIH fellowship dollars awarded in FY 1993, an increase from 27.6 percent in FY 1984. The total number of individual fellowships has been fairly constant since FY 1991. However, the number awarded to women has declined by 150 since FY 1991, while the number awarded to men has increased by 190.

The remaining fellowship mechanisms, with the number awarded in FY 1993 by gender, are:

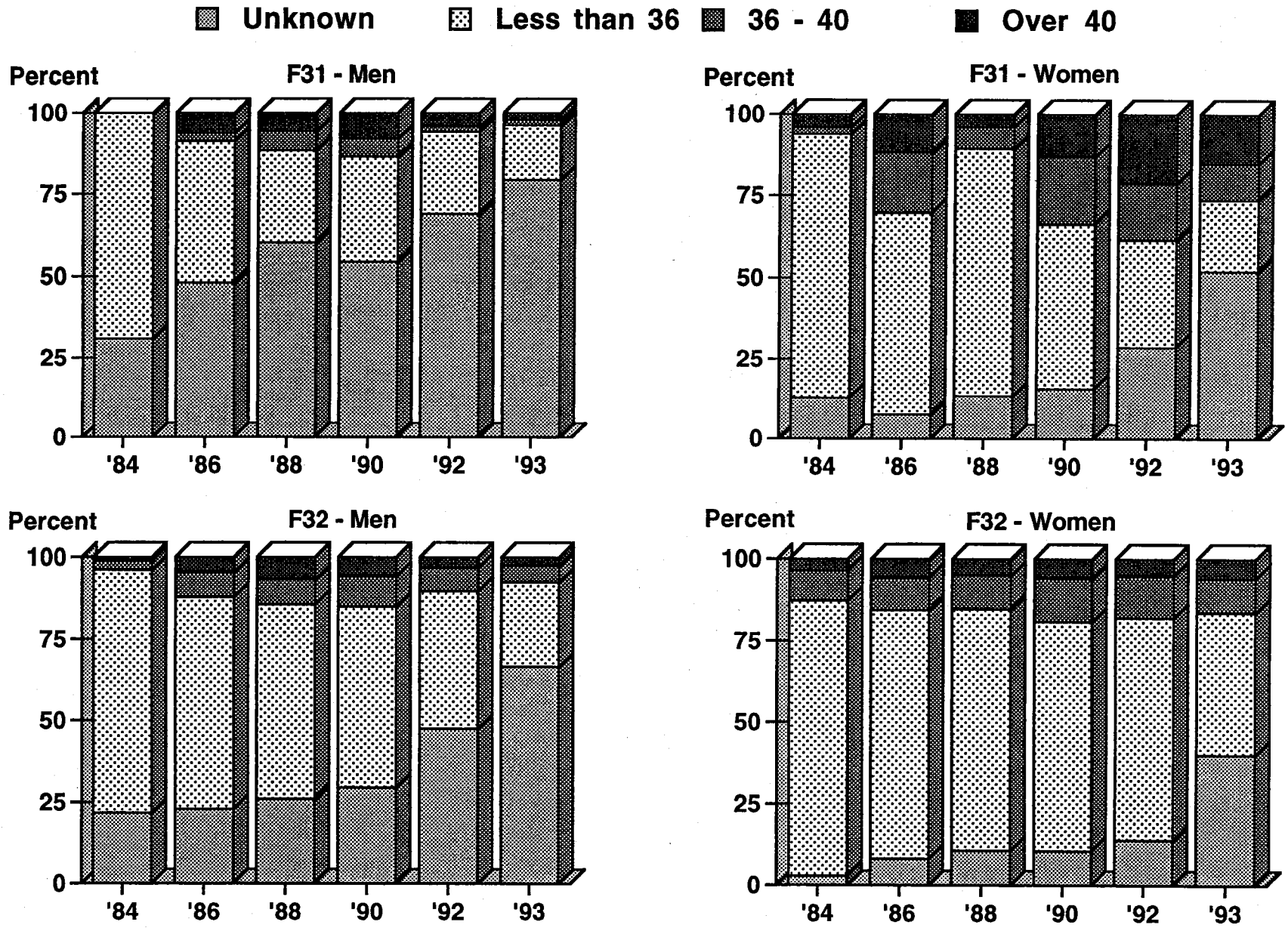
F05-- International Research Fellowships (FIC): 55 males, 22 females, 55 nonresponse
F06-- Senior International Fellowships (FIC): 47 males, 6 females
F15-- Scholars-in-Residence Program (FIC): 3 males, 1 female, 1 nonresponse
F30-- Individual MD/PhD Predoctoral NRSA Fellowships (ADAMHA): 36 males, 5 females
F33-- National Research Service Awards for Senior Fellows: 23 males, 5 females
F34-- Minority Access to Research Careers (MARC) NRSA Faculty Fellowships: 8 males, 2 females
F35-- Intramural NRSA Individual Postdoctoral Program Appointee: 10 males, 4 females
F37-- Medical Informatics Fellowship (NLM): 2 males
F38-- Applied Medical Informatics Fellowship (NLM): 3 males

Number of Individual Fellowships by Gender, Fiscal Years 1984 - 1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Male	1,353	1,492	1,379	1,557	1,488	1,413	1,432	1,431	1,552	1,621
Female	544	610	561	627	588	530	754	940	783	790
Total*	1,930	2,148	1,982	2,229	2,121	2,016	2,258	2,437	2,447	2,471

*Totals (competing and noncompeting) include gender nonresponse.

Percent Distribution of Awards for NIH F31 and F32 NRSA by Mechanism, Gender, and Age Group, FY1984-1993†



†Selected years.
Source: NIH, DRG, ISB, SAES

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8.4 Distribution of Individual NRSA F31 and F32 Fellowships by Age Group

The total number of F31 fellowships awarded to both men and women increased from 108 in FY 1984 to 546 in FY 1993. Proportionally, this increase was greater for women than for men, 455 percent compared to 367 percent. While fellows aged 35 and under represent the most populous age group in both FY 1984 and FY 1993, data for FY 1993 indicate more dispersion of F31 fellowship awards over age groups.

The total number of F32 fellowships awarded to both men and women has increased slightly in FY 1993 from FY 1984, 1637 versus 1609. Since FY 1984, the number awarded to men has increased by 10 and that to women by 23. Women received 30 percent of the total number of F32 fellowships awarded in FY 1993. For both men and women, there has been a decline in fellowships for scientists aged 35 and under, while the number has increased for each group age over age 35.

Number of Individual F31 Fellowships Awarded by Age Group, Fiscal Years 1984, 1993

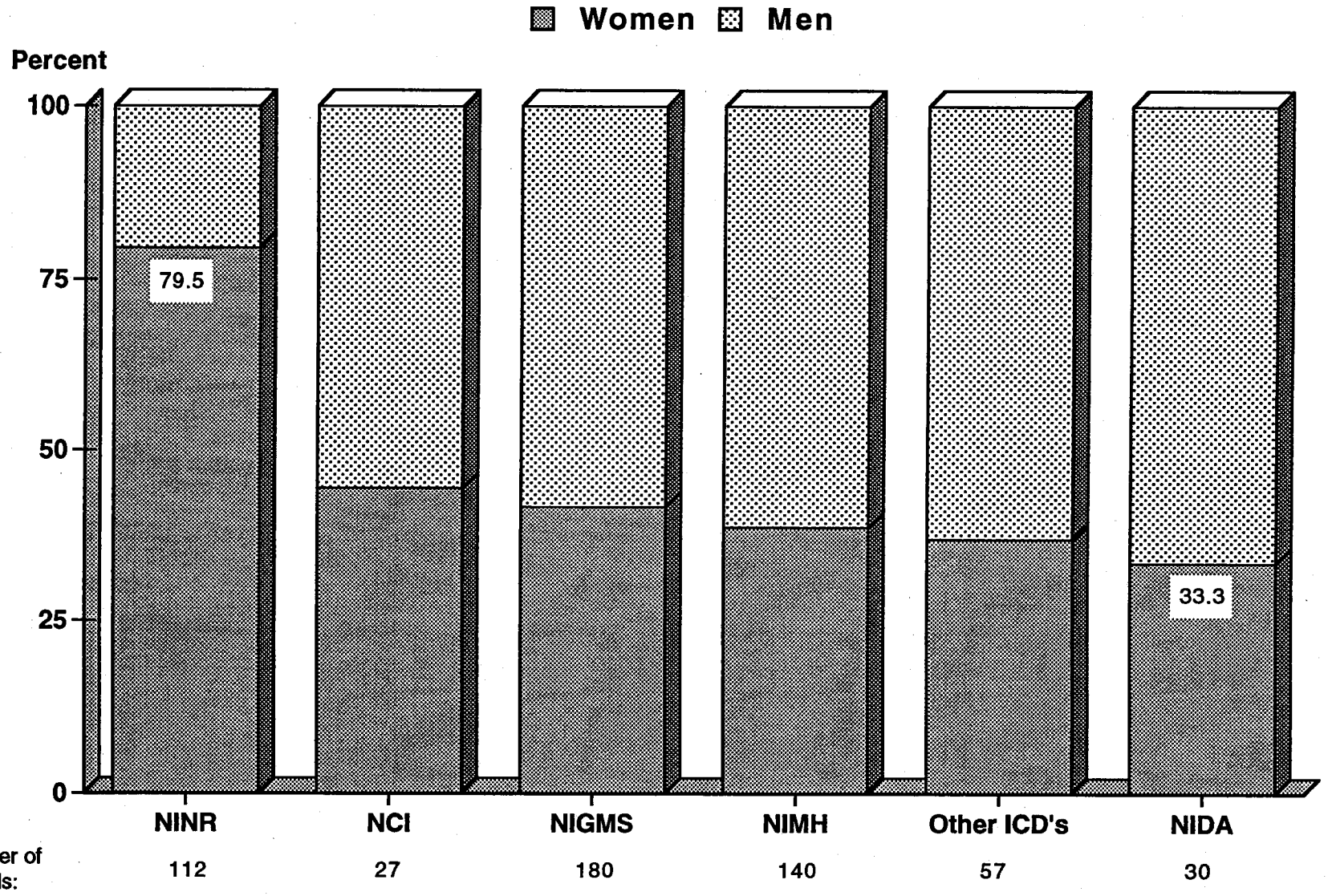
Age Group	Fiscal Year 1984						Fiscal Year 1993					
	≤ 35	36-40	41-45	46-50	>=51	NR*	≤ 35	36-40	41-45	46-50	>=51	NR*
Male	42	0	0	0	0	19	48	5	1	1	4	226
Female	38	1	2	0	0	6	56	29	33	4	3	136
Total*	80	1	2	0	0	25	104	34	34	5	7	362

Number of Individual F32 Fellowships Awarded by Age Group, Fiscal Years 1984, 1993

Age Group	Fiscal Year 1984						Fiscal Year 1993					
	≤ 35	36-40	41-45	46-50	>=51	NR*	≤ 35	36-40	41-45	46-50	>=51	NR*
Male	849	33	6	1	4	246	298	59	20	3	5	764
Female	389	43	13	2	1	13	212	50	19	9	1	193
Total*	1238	76	19	3	5	268	511	109	39	12	6	960

*NR indicates age nonresponse.

Percent Distribution of Awards for NIH Predoctoral NRSA (F31),* FY1993 by Institute/Center and Gender



Note: Other ICD's, with less than 12 awards, includes NIAAA, NIA,. NIAID, NIAMS, NIDCD, NIDR, NIDDK NIEHS, NEI, NICHD, NCHGR, NHLBI, and NCRR. *Excludes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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8.5 Distribution of Individual F31 Fellowships by Institute

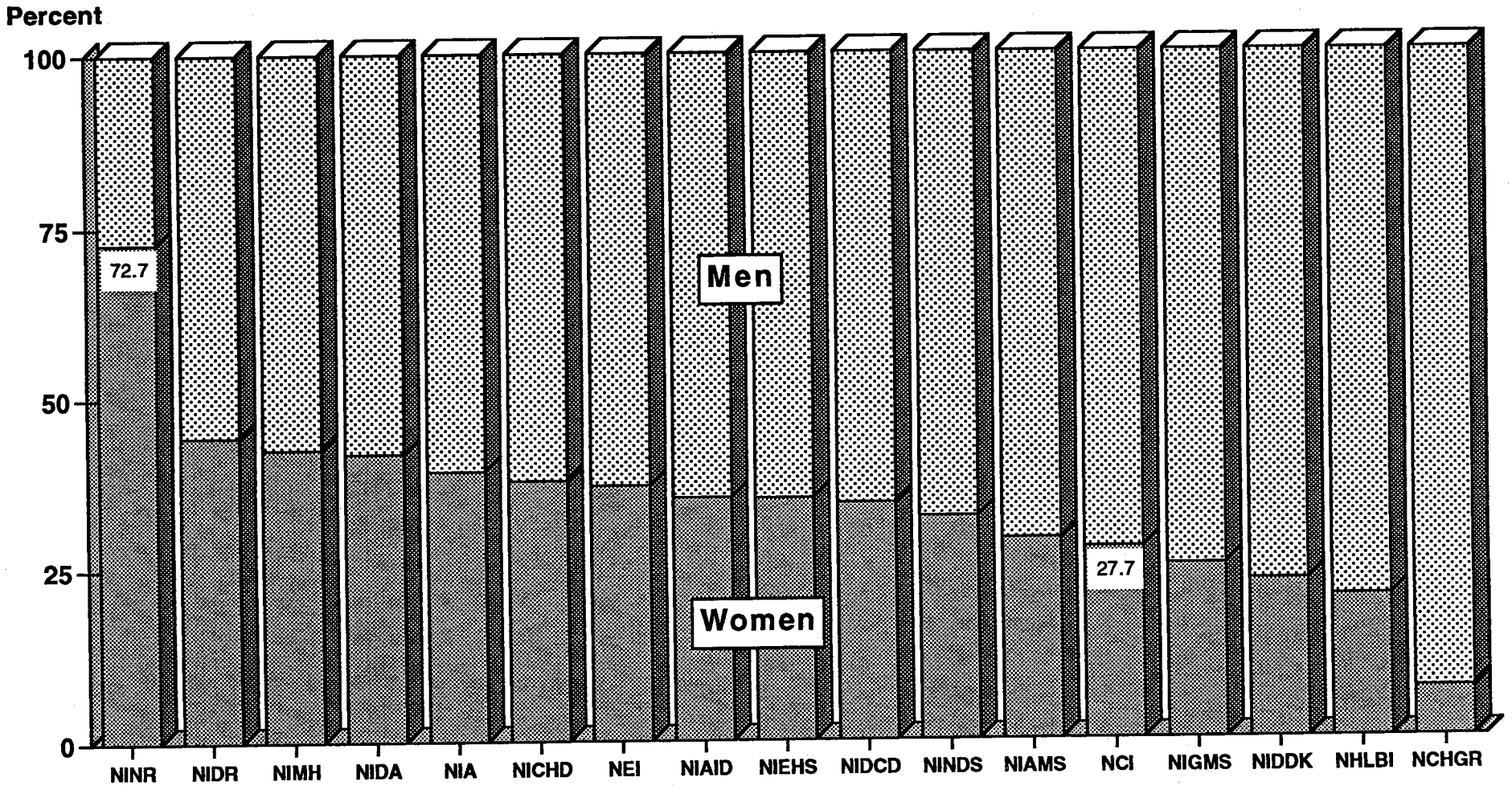
The National Institute of General Medical Sciences (NIGMS) awarded the greatest number of individual predoctoral F31 fellowships in FY 1993, 180, and the second greatest number to women, 75. The National Institute of Nursing Research (NINR) had the highest number of F31 awards for women, 89, and the highest proportion (excluding NIDR) of women recipients, 79.5 percent.

Number of Individual F31 Fellowships by Institute/Center and Gender
Fiscal Year 1993

I/C	Men	Women	Total*	I/C	Men	Women	Total*
NIAAA	7	3	10	NEI	2	1	3
NIA	2	1	3	NIGMS	105	75	180
NIAID	3	1	4	NICHD	1	1	2
NIAMS	2	0	2	NCHGR	6	3	9
NCI	15	12	27	NHLBI	3	1	4
NIDA	20	10	30	NIMH	86	54	140
NIDCD	1	2	3	NINR	23	89	112
NIDR	0	1	1	NINDS	0	0	0
NIDDK	4	4	8	NCRR	1	0	1
NIEHS	4	3	7	NIH	285	261	546

* Totals include gender nonresponse.

Percent Distribution of Awards for NIH Postdoctoral NRSA (F32),* FY1993 by Institute/Center and Gender



	NINR	NIDR	NIMH	NIDA	NIA	NICHD	NEI	NIAID	NIEHS	NIDCD	NINDS	NIAMS	NCI	NIGMS	NIDDK	NHLBI	NCHGR
No. of F32s:	11	18	61	31	28	104	98	119	37	32	158	32	141	404	140	200	14

Note: NIAAA and NCRR not shouwn because there have 7 or less awards. *Excludes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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8.6 Distribution of Individual F32 Fellowships by Institute

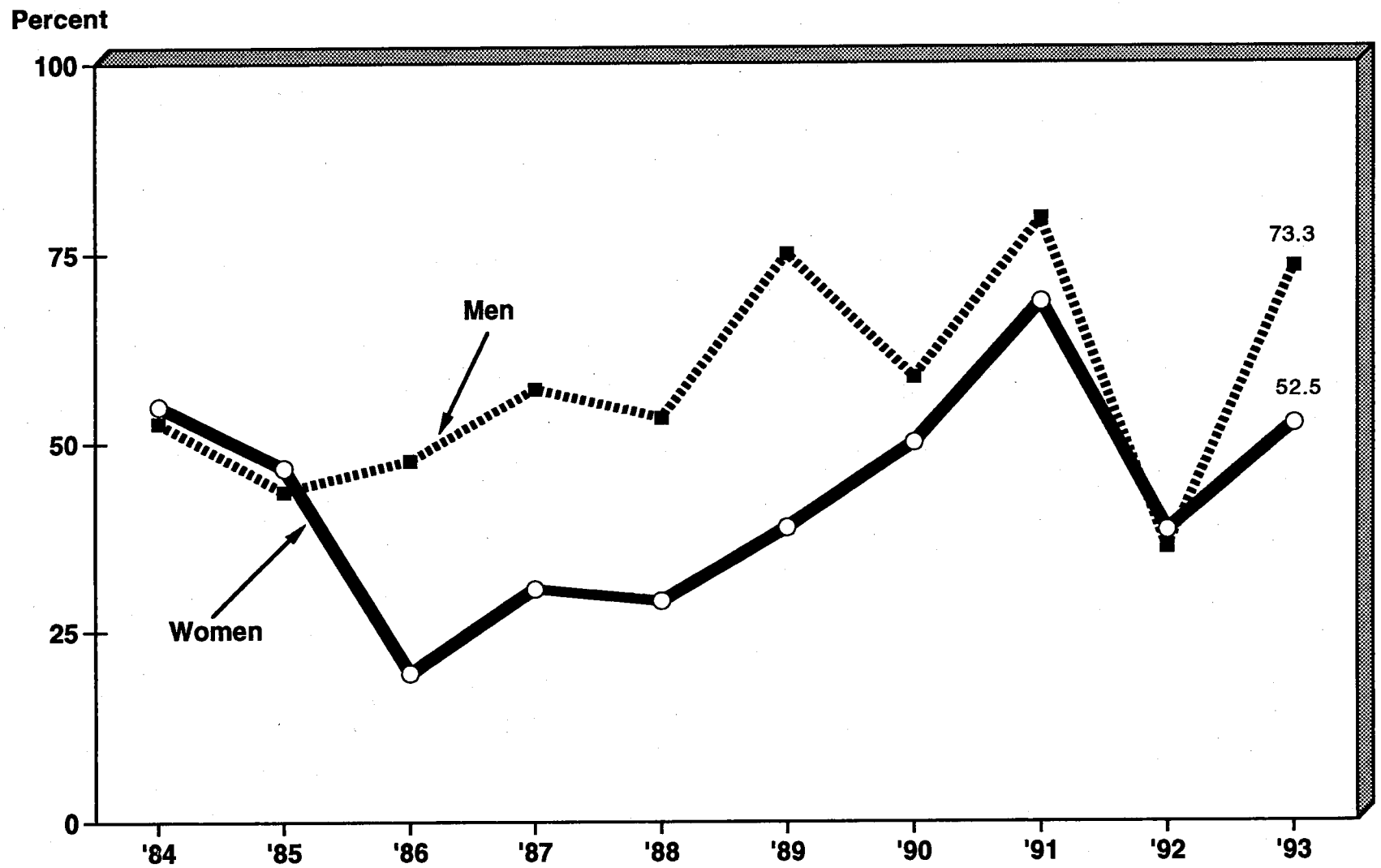
In FY 1993, women received 29.6 percent of the postdoctoral F32 fellowships awarded, excluding gender nonresponse. The National Institute of General Medical Sciences (NIGMS) awarded the greatest number of F32 fellowships in FY 1993, 404, and the greatest number to women, 101. The National Institute of Nursing Research (NINR) had the highest proportion of female recipients, 72.7 percent.

Number of Individual F32 Fellowships by Institute/Center and Gender
Fiscal Year 1993

I/C	Men	Women	Total	I/C	Men	Women	Total
NIAAA	5	2	7	NEI	61	36	98
NIA	17	11	28	NIGMS	302	101	404
NIAID	77	42	119	NICHD	64	39	104
NIAMS	22	9	32	NCHGR	13	1	14
NCI	102	39	141	NHLBI	159	41	200
NIDA	18	13	31	NIMH	35	26	61
NIDCD	21	11	32	NINR	3	8	11
NIDR	10	8	18	NINDS	107	51	158
NIDDK	108	32	140	NCRR	1	1	2
NIEHS	24	13	37	NIH	1,149	484	1,637

*Totals (competing and noncompeting) include gender nonresponse.

Success Rates for NIH Predoctoral NRSA F31 Applications by Gender, FY1984-1993



Number of Applications*:	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93
	120	102	177	233	207	278	270	409	411	391

*Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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8.7 Success Rates for Competing Predoctoral Individual NRSA (F31) Fellowships

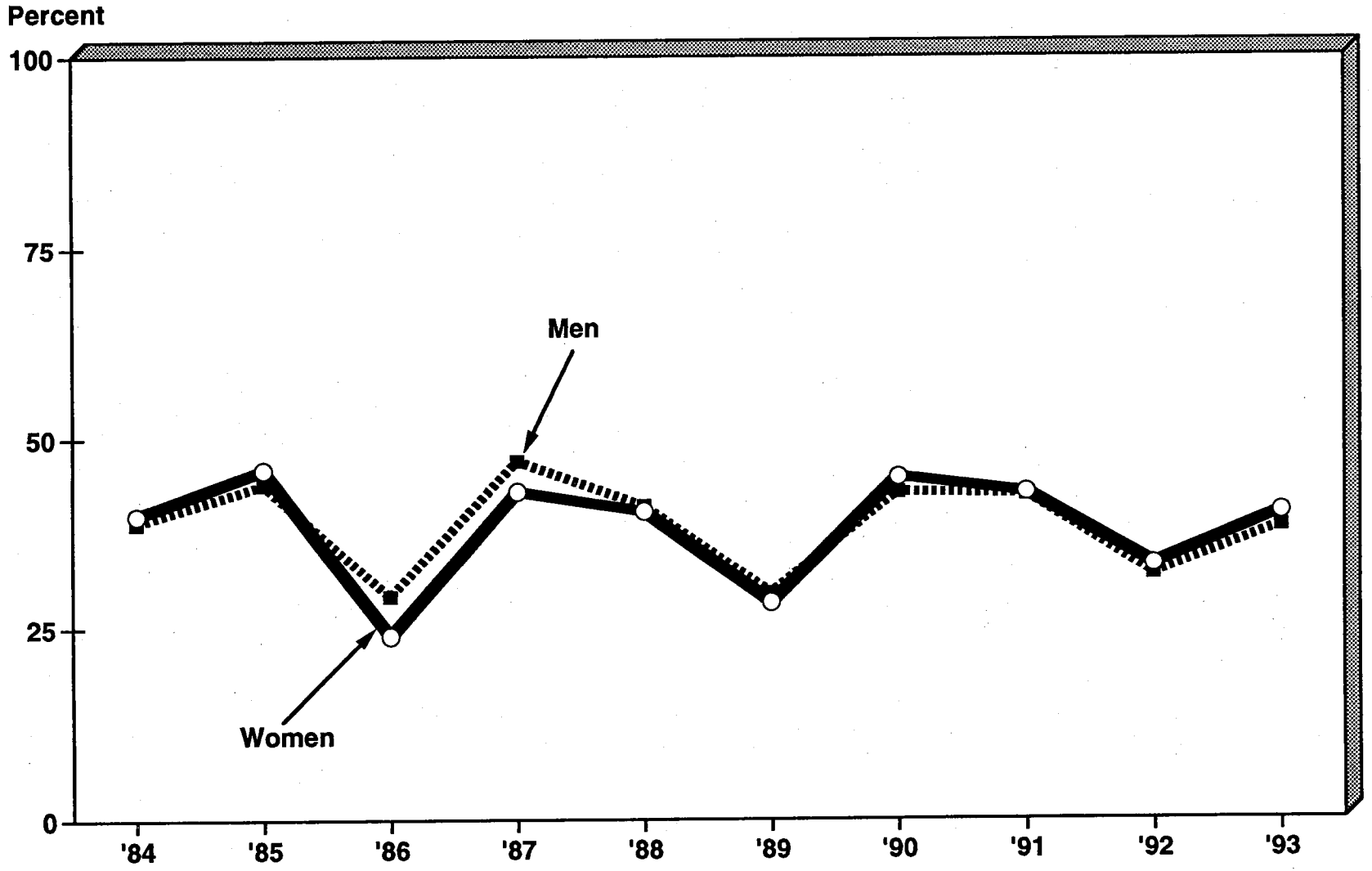
There were 230 competing F31 fellowships in FY 1993, totalling $4.6 million. Women received 94 competing F31 fellowships, while men received 88. In FY 1993, men had a considerably higher success rate than women, 73.3 vs. 52.5. Except for FY 1992, men have had better success rates for F31 awards in every fiscal year since FY 1986.

The number of F31 applicants and their success rates were split about equally by gender for FY 1984 and FY 1985. The number of female applicants surged in FY 1986 (when NINR joined NIH) and has exceeded the number of male applicants since FY 1985. Women have submitted more applications and received more awards in every fiscal year since 1985.

Competing Predoctoral Individual NRSA (F31) Fellowships by Gender
Fiscal Years 1984-1993

		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Number of Applications Reviewed	Male	54	39	21	42	45	28	45	108	61	118
	Female	51	45	123	108	93	129	203	258	125	178
Number of Awards	Male	29	17	10	24	24	21	27	86	22	88
	Female	28	21	24	33	27	50	102	178	48	94
Success Rate	Male	52.7	43.6	47.6	57.1	53.3	75.0	58.7	79.6	36.1	73.3
	Female	54.9	46.7	19.5	30.6	29.0	38.8	50.0	68.7	38.4	52.5

Success Rates for NIH Postdoctoral NRSA (F32) Applications by Gender, FY1984-1993



	'84	'85	'86	'87	'88	'89	'90	'91	'92	'93
Number of Applications*:	1,952	2,176	2,173	1,995	1,952	2,273	1,930	1,793	1,925	2,075

*Includes gender nonresponse.
Source: NIH, DRG, ISB, SAES

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8.8 Success Rates for Competing Postdoctoral Individual NRSA (F32) Fellowships

There were 793 competing F32 fellowships in FY 1993. Women received 232 competing F32 awards, while men received 363, with 198 gender nonresponse. Women have had slightly higher success rates than men for F32 awards in every fiscal year since 1990, and in FY 1993 it was 40.3 percent compared to 38.4 percent for men.

The number of F32 applications reviewed and awards made rebounded for both men and women from the ten-year low of FY 1992. The number of male applicants has generally declined since FY 1986, while the number of applications reviewed from women has been more stable over the period. Comparing FY 1993 with FY 1984 and excluding gender nonresponse, women submitted a higher percentage of the applications reviewed in FY 1993 (38 percent vs. 31 percent) and received a greater proportion of the awards made in FY 1993 (39 percent vs. 33 percent).

Competing Postdoctoral Individual NRSA (F32) Fellowships (Applications, Awards and Success Rates) Fiscal Years 1984-1993

		1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Number of Applications Reviewed	Male	1,143	1,195	1,269	1,086	1,011	833	1,072	1,004	535	946
	Female	536	617	639	582	599	534	715	703	367	574
Number of Awards	Male	445	526	371	522	417	247	463	429	174	363
	Female	215	284	154	256	243	151	324	303	124	232
Success Rate	Male	38.9	43.9	29.2	47.0	41.1	29.6	42.9	42.6	32.1	38.4
	Female	39.9	45.9	24.0	43.0	40.4	28.3	44.9	42.9	33.4	40.3

Appendices

Appendix A - Research Grants Awarded to the Top 50 Institutions, Fiscal Year 1993

Appendix B - Total Dollar Amount and Number of Awards by Gender and by ICD for Research Projects, Research Centers, and Other Research, FY 1993

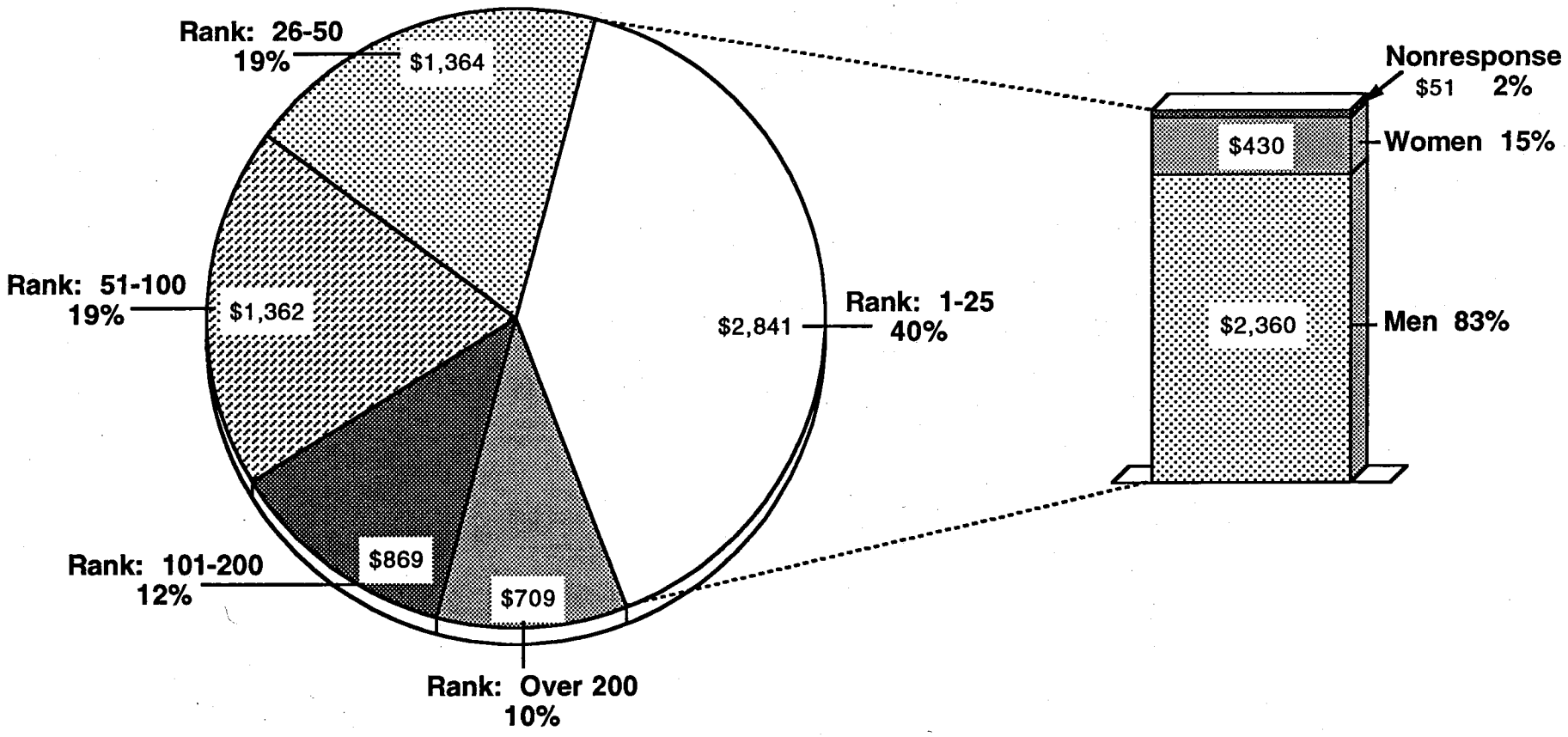
Appendix C - Personal Data on Principal Investigator/Program Director Form

Appendix D - List of Awarding Institutes and Centers of the NIH

NIH Research Grant Awards* by Institution Rank, FY1993

(dollars in millions)

Total: $7,145 million



*Excludes SBIR's (R43, R44) for which gender information is not requested.
Source: NIH, DRG, ISB, SAES

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RESEARCH GRANTS* AWARDED TO THE TOP 50 INSTITUTIONS
FISCAL YEAR 1993

	INSTITUTION NAME	STATE	NUMBER OF AWARDS	TOTAL DOLLARS AWARDED	PERCENTAGE OF DOLLARS AWARDED		
					Men	Women	Unknown
1	JOHNS HOPKINS UNIVERSITY	MD	781	224,530,668	82.4	15.6	2.1
2	UNIVERSITY OF CALIFORNIA SAN FRANCISCO	CA	616	173,406,606	79.1	20.5	0.4
3	UNIVERSITY OF WASHINGTON	WA	549	155,243,135	80.0	17.4	2.6
4	UNIVERSITY OF MICHIGAN	MI	580	142,353,130	85.2	13.0	1.8
5	YALE UNIVERSITY	CT	540	141,029,393	82.9	14.8	2.3
6	UNIVERSITY OF PENNSYLVANIA	PA	514	135,679,477	83.0	15.2	1.8
7	UNIVERSITY OF CALIFORNIA LOS ANGELES	CA	504	130,900,462	78.7	20.4	0.9
8	COLUMBIA UNIVERSITY NEW YORK	NY	408	122,396,308	80.1	18.8	1.1
9	UNIVERSITY OF PITTSBURGH	PA	452	121,733,460	75.5	20.1	4.4
10	STANFORD UNIVERSITY	CA	407	120,054,641	90.0	9.2	0.7
11	WASHINGTON UNIVERSITY	MO	430	119,756,503	88.7	10.0	1.3
12	HARVARD UNIVERSITY	MA	381	118,676,677	88.2	10.6	1.1
13	UNIVERSITY OF CALIFORNIA SAN DIEGO	CA	423	115,459,351	83.1	14.7	2.2
14	DUKE UNIVERSITY	NC	421	110,733,980	86.1	12.4	1.5
15	UNIVERSITY OF WISCONSIN MADISON	WI	452	101,827,766	85.2	12.6	2.2
16	UNIVERSITY OF NORTH CAROLINA CHAPEL HILL	NC	425	101,438,068	82.9	16.7	0.4
17	UNIVERSITY OF MINNESOTA	MN	444	93,046,123	82.6	16.6	0.8
18	CASE WESTERN RESERVE UNIVERSITY	OH	368	84,330,432	82.8	15.7	1.5
19	CORNELL UNIVERSITY	NY	302	83,622,580	84.5	13.7	1.8
20	BRIGHAM AND WOMEN'S HOSPITAL	MA	274	80,821,626	83.6	15.2	1.2
21	MASSACHUSETTS GENERAL HOSPITAL	MA	292	78,956,705	78.5	17.1	4.4
22	BAYLOR COLLEGE OF MEDICINE	TX	296	74,012,886	84.8	14.2	1.1
23	SCRIPPS RESEARCH INSTITUTE	CA	253	72,328,526	87.4	6.6	6.0
24	UNIVERSITY OF ALABAMA AT BIRMINGHAM	AL	330	69,766,946	81.3	16.2	2.5
25	VANDERBILT UNIVERSITY	TN	278	69,216,775	85.6	13.4	1.0

* Excludes SBIR's (R43 & R44), for which gender information is not requested.

	INSTITUTION NAME	STATE	NUMBER OF AWARDS	TOTAL DOLLARS AWARDED	PERCENTAGE OF DOLLARS AWARDED		
					MALE	FEMALE	UNKNOWN
26	UNIVERSITY OF SOUTHERN CALIFORNIA	CA	245	68,936,381	76.6	22.5	0.9
27	YESHIVA UNIVERSITY	NY	210	67,463,385	79.9	19.2	1.0
28	UNIVERSITY OF CHICAGO	IL	265	67,112,756	82.1	16.7	1.2
29	UNIVERSITY OF IOWA	IA	277	66,380,990	87.0	11.5	1.5
30	NEW YORK UNIVERSITY	NY	247	65,838,282	82.5	15.6	1.9
31	UNIVERSITY OF COLORADO HLTH SCIENCES CTR	CO	260	65,306,845	85.1	10.8	4.2
32	EMORY UNIVERSITY	GA	269	63,164,140	85.9	11.9	2.1
33	UNIVERSITY OF ROCHESTER	NY	266	62,616,989	82.5	13.8	3.7
34	UNIVERSITY OF TEXAS SW MED CTR/DALLAS	TX	243	61,390,352	86.0	10.8	3.2
35	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	MA	161	54,808,315	88.3	7.6	4.1
36	UNIVERSITY OF MIAMI CORAL GABLES	FL	185	53,657,782	72.9	27.0	0.2
37	INDIANA UNIVERSITY	IN	249	53,011,837	81.8	14.0	4.2
38	DANA-FARBER CANCER INSTITUTE	MA	163	50,557,422	85.0	13.8	1.2
39	FRED HUTCHINSON CANCER RESEARCH CENTER	WA	116	50,471,210	80.7	18.7	0.6
40	UNIVERSITY OF CALIFORNIA BERKELEY	CA	208	50,023,520	77.5	20.6	1.9
41	UNIVERSITY OF ARIZONA	AR	208	48,731,350	82.5	16.8	0.7
42	NORTHWESTERN UNIVERSITY	IL	214	48,664,557	83.6	14.9	1.5
43	UNIVERSITY OF VIRGINIA	VA	226	48,022,126	89.7	9.9	0.4
44	BOSTON UNIVERSITY	MA	192	47,506,251	75.0	24.8	0.2
45	MOUNT SINAI SCHOOL OF MEDICINE	NY	174	47,331,226	86.3	11.7	2.0
46	UNIVERSITY OF CALIFORNIA DAVIS	CA	213	46,140,044	85.5	12.1	2.4
47	UNIVERSITY OF UTAH	UT	226	44,988,743	80.7	12.5	6.8
48	MAYO FOUNDATION	MN	176	44,764,293	90.3	4.5	5.1
49	SLOAN-KETTERING INSTITUTE FOR CANCER RES	NY	135	44,565,191	90.9	8.9	0.2
50	UNIVERSITY OF TEXAS HLTH SCI CTR SAN ANT	TX	181	42,955,459	76.2	23.0	0.8
	RANK: 1-50			$4,205,731,670	83.0	15.1	2.0
	RANK: 51-1144			$2,939,019,779	80.1	17.4	2.5
	ALL INSTITUTIONS:	TOTAL:		$7,144,751,449	82.0	16.0	2.1

Total Dollar Amount and Number of Awards* by Gender and by ICD for Research Projects, Research Centers, and Other Research, FY 1993

Total Dollar Amount of Awards (in thousands) by Gender and by ICD, Fiscal Year 1993									
	Research Projects			Research Centers			Other Research		
	Male	Female	Nonresp	Male	Female	Nonresp	Male	Female	Nonresp
AA	73,706	22,352	928	16,092	1,250	0	13,685	2,389	88
AG	183,209	48,029	5,394	42,141	6,273	3,127	6,696	3,684	462
AI	516,357	102,952	11,625	6,248	394	1,080	8,735	5,101	618
AR	114,119	26,333	1,566	21,910	1,724	0	4,716	1,866	201
CA	745,452	140,701	13,859	138,575	1,210	5,184	115,978	12,220	5,343
DA	135,940	48,916	4,515	24,917	1,695	0	57,424	12,297	4,637
DC	83,073	20,711	1,132	14,246	2,819	0	2,952	3,136	111
DE	61,703	12,531	1,005	16,081	2,057	0	9,247	2,216	172
DK	400,042	56,901	4,962	44,768	1,895	0	12,412	4,345	910
ES	98,826	15,236	360	17,293	795	0	24,998	6,515	2,963
EY	149,553	31,449	3,408	5,445	978	1,216	19,987	9,518	1,298
GM	558,356	92,104	6,433	7,784	0	0	45,485	11,988	2,794
HD	200,462	77,478	4,694	40,340	7,638	978	21,206	10,266	4,663
HG	48,761	9,527	372	27,691	1,873	1,863	2,536	832	265
HL	630,408	90,374	18,794	86,651	7,508	2,609	31,679	5,782	1,962
LM	0	0	0	0	0	0	10,038	1,587	305
MH	208,743	67,168	8,440	52,200	13,118	0	37,619	15,324	771
NR	3,715	32,540	200	0	1,762	0	233	3,820	0
NS	347,213	57,995	5,176	28,817	1,993	393	11,773	4,869	499
RR	10,753	2,698	0	223,647	10,494	13,791	21,467	4,888	1,718
TW	0	0	0	0	0	0	2,862	793	0

* Excludes SBIR's(R43 and R44), for which gender information is not requested.

Number of Awards* by Gender and by ICD, Fiscal Year 1993									
	Research Projects			Research Centers			Other Research		
	Male	Female	Nonresp	Male	Female	Nonresp	Male	Female	Nonresp
AA	314	108	4	16	1	0	66	26	2
AG	688	247	23	10	49	3	78	47	6
AI	1,973	456	45	13	1	2	144	59	4
AR	553	147	10	30	2	0	62	28	3
CA	2,710	621	60	105	4	3	481	130	44
DA	516	184	16	25	1	0	138	51	12
DC	364	133	9	14	5	0	56	38	2
DE	345	76	5	32	3	0	101	34	4
DK	1,883	340	23	71	3	0	168	59	11
ES	360	61	2	19	1	0	41	19	4
EY	801	175	17	21	4	4	152	35	19
GM	2,872	542	35	11	0	0	206	55	15
HD	1,014	412	27	70	12	2	131	60	20
HG	120	33	3	14	1	1	30	16	2
HL	2,353	413	68	70	6	2	339	78	24
LM	0	0	0	0	0	0	42	12	4
MH	902	318	35	51	10	0	291	118	8
NR	20	171	1	0	10	0	2	40	0
NS	1,483	314	27	43	4	1	164	53	7
RR	57	15	0	256	13	13	396	93	56
TW	0	0	0	0	0	0	84	15	0

* Excludes SBIR's(R43 and R44), for which gender information is not requested.

Attach this form to the signed original of the application after the CHECKLIST. Do not *duplicate.*

PERSONAL DATA ON PRINCIPAL INVESTIGATOR/PROGRAM DIRECTOR

The Public Health Service has a continuing commitment to monitoring the operation of its review and award processes to detect—and deal appropriately with—any instances of real or apparent inequities with respect to age, sex, race, or ethnicity of the proposed principal investigator/program director.

To provide the PHS with the information it needs for this important task, complete the form below and attach it to the signed original of the application after the Checklist. *Do not attach copies of this form to the duplicated copies of the application.*

Upon receipt and assignment of the application by the PHS, this form will be separated from the application. This form will *not* be duplicated, and it will *not* be a part of the review process. Data will be confidential, and will be maintained in Privacy Act record system 09-25-0036, "Grants: IMPAC (Grant/Contract Information)." All analyses conducted on the data will report aggregate statistical findings only and will not identify individuals.

If you decline to provide this information, it will in no way affect consideration of your application.

Your cooperation will be appreciated.

DATE OF BIRTH *(month/day/year)*	SEX ☐ Female ☐ Male

RACE AND/OR ETHNIC ORIGIN *(check one)*

Note: The category that most closely reflects the individual's recognition in the community should be used for purposes of reporting mixed racial and/or ethnic origins.

☐ ***American Indian or Alaskan Native.*** A person having origins in any of the original peoples of North America, and who maintains a cultural identification through tribal affiliation or community recognition.

☐ ***Asian or Pacific Islander.*** A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.

☐ ***Black, not of Hispanic origin.*** A person having origins in any of the black racial groups of Africa.

☐ ***Hispanic.*** A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

☐ ***White, not of Hispanic origin.*** A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.

☐ Check here if you do not wish to provide some or all of the above information.

List of Awarding Institutes and Centers of the NIH

Institute/Center NIH institutes or centers; components of the National Institutes of Health (includes the National Library of Medicine). Institutes/centers can make extramural awards. Institutes/centers include:

AA	National Institute on Alcohol Abuse and Alcoholism (**NIAAA**)
AG	National Institute on Aging (**NIA**)
AI	National Institute of Allergy & Infectious Diseases (**NIAID**)
AR	National Institute of Arthritis & Musculoskeletal & Skin Diseases (**NIAMS**)
CA	National Cancer Institute (**NCI**)
CL	Clinical Center (**CLC**)
CT	Division of Computer Research and Technology (**DCRT**)
DA	National Institute on Drug Abuse (**NIDA**)
DC	National Institute on Deafness and Other Communication Disorders (**NIDCD**)
DE	National Institute of Dental Research (**NIDR**)
DK	National Institute of Diabetes & Digestive & Kidney Diseases (**NIDDK**)
DS	Division of Safety (**DS**)
ES	National Institute of Environmental Health Sciences (**NIEHS**)
EY	National Eye Institute (**NEI**)
GM	National Institute of General Medical Sciences (**NIGMS**)
HD	National Institute of Child Health & Human Development (**NICHD**)
HG	National Center for Human Genome Research (**NCHGR**)
HL	National Heart, Lung & Blood Institute (**NHLBI**)
LM	National Library of Medicine (**NLM**)
MH	National Institute of Mental Health (**NIMH**)
NR	National Institute for Nursing Research (**NINR**)
NS	National Institute of Neurological Disorders & Stroke (**NINDS**)
OD	Office of the Director (**NIH**)
RG	Division of Research Grants (**DRG**)
RR	National Center for Research Resources (**NCRR**)
TW	Fogarty International Center (**FIC**)
WH	Women's Health Initiative (**WHI, OD**)

Technical Note

Source of data: Data in this publication (unless otherwise noted) were obtained from the IMPAC System, the NIH computer-based system for information about PHS extramural programs, managed by the Division of Research Grants. In compiling data, records were grouped on the basis of codes for extramural program activities and NIH institutes/centers identified in the grant and contract numbers. Definitions of these codes are contained in the NIH Manual Issuance 4101/6304-2 entitled Activity Codes, Organization Codes and Definitions Used in Extramural Programs, January 1994.

Accuracy of data: Considerable effort was made to ensure the accuracy of these data and their comparability over the selected years. The grant award data are reconciled with NIH's Division of Financial Management (DFM). Contract data are consistent with data submitted by NIH R&D contracting officers. Totals are obtained using the same definitions and sources used to prepare authoritative reference publications including the annual listings of NIH Grants and Awards and the NIH Data Book. The most recent classification and location of institutions were used for all years.

Inclusion of NIAAA, NIDA, NIMH: At the beginning of FY 1993, three Alcohol, Drug Abuse, and Mental Health Administration (**ADAMHA**) research institutes--the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the National Institute on Drug Abuse (NIDA), and the National Institute of Mental Health (NIMH)--joined the NIH. Therefore, the NIH data presented in this publication for FY 1993 include data for these three institutes. For years prior to FY 1993, data presented in this publication have been recomputed to include the three new institutes; therefore, these data are no longer consistent with those presented in previous editions of this publication.

Reorganization of institutes/centers: Several institutes/centers were established or reorganized over the period FY 1984-1993; the new institutes/centers are NINR, NCHGR, NINDS, NIDCD, NIAMS, NIDDK. Data for NINR were first presented in FY 1986; NINR was formerly a part of the Bureau of Health Professions, Public Health Service. NCHGR was formed from components of NIGMS; data for NCHGR were first presented in FY 1990. NINCDS was split into NINDS and NIDCD as of FY 1989. All NINCDS awards prior to FY 1989 are listed under NINDS in this publication; data for NIDCD are first presented for FY 1989. Another institute was split into two successors; NIADDK was split into NIAMS and NIDDK in FY 1986. Coding in the data base was such that data for NIADDK could be divided between its two successor institutes for years prior to FY 1986; therefore, data for NIAMS and NIDDK are presented in this publication for all years from FY 1984-1993.

Total costs: Unless otherwise noted on a specific graph or table, **all** dollar costs for awards reported in this publication are **total costs** (direct and indirect).

Summary of Major NIH Support Mechanisms

1. **Research grants**, the largest category of NIH research funding, supports three research mechanisms: 1) research projects; 2) research centers; and, 3) other research grants (e.g., career development, cooperative agreements, and other research-related programs).

   a. **Research Projects** include the traditional research project, program project, and other research project mechanisms.

      - **The traditional research project (R01)** grant is awarded to a domestic or foreign institution to support a principal investigator's work on a discrete research project.

      - **Program project (P01)** grants support broadly-based, often multidisciplinary, long-term research programs involving groups of investigators working on research projects that contribute to the overall program objective.

      - **Other research project mechanisms** in FY 1993 included:

        - National Institute of Environmental Health Sciences' (NIEHS) **hazardous substances basic research grants program (P42)**
        - **First Independent Research Support and Transition (FIRST--R29)** awards for new investigators to develop their research capabilities and demonstrate the merit of their research ideas
        - **Small Business Innovation Research (SBIR--R43 and R44)** grants and **SBIR cooperative agreements (U43)** support projects, limited in time and amount, to establish the technical merit and feasibility of R&D ideas that may ultimately lead to commercial products or services; and once feasibility has been established, to support in-depth development of such R&D ideas
        - **Outstanding Investigator (R35)** and **Method to Extend Research in Time (MERIT--R37)** awards provide long-term support to outstanding, experienced investigators
        - **James A. Shannon Director's Award (R55)** addresses the problem of unfunded but highly meritorious research applications, by providing limited awards to investigators to further develop, test, and refine their research techniques and improve their already meritorious applications. Until

FY 1993, R55's were classified as "other research grants."

- Research projects administered under **cooperative agreements (U01)**
- **Research program cooperative agreements (U19)** to support research programs of multiple projects directed toward a specific major objective

b. **Research Center** grants support multidisciplinary, long-term research and development programs at research centers. Research centers usually have a clinical orientation and are usually developed in response to an announcements from an NIH institute/center requesting research in a specific area of need. Research center grants are awarded to institutions on behalf of a program director and a group of collaborating investigators.

c. **Other Research Grants** include:

- Research career awards to support the development of outstanding scientists
- Academic Research Enhancement Awards (AREA) to support scientists at colleges that are not research-intensive, but train a significant number of research scientists on small-scale, health-related research projects
- Small research grants in categorical program areas
- Small general purpose funds for biomedical and minority biomedical research support grants
- Conference grants
- Small education, exploratory/development, research demonstration and dissemination projects
- Small grants to support the purchase of equipment
- Cooperative agreements for clinical research in specific disease areas or to improve resources used to serve biomedical research

2. **Research and Development Contracts** are negotiated with qualified domestic and foreign organizations to support basic, applied, or developmental research and to test or evaluate a product, material, device, or component for use by the research community and the initiative for the research generally originates within NIH.

3. **Training Awards** support the research training of scientists for careers in the behavioral and biomedical sciences,

as well as help professional schools to establish, expand, or improve programs of continuing professional education. Training awards consist of institutional training grants (T awards) and individual fellowships (F awards). The primary training mechanisms are National Research Service Awards (NRSA) institutional training grants and fellowships, and institutional grants and fellowships specifically targeted for minority institutions and minority scientists.

a. **Institutional training grants** funded in FY 1993 included:

T15 **Continuing Education Training Grants**--to assist professional schools and other public and nonprofit institutions to establish, expand, or improve programs of continuing professional education, especially for programs of extensive continuation, extension, or refresher education dealing with new developments in the science of technology of the profession

T22 **Institutional Research Fellowships**--to support an institution with an approved preceptor for number of postdoctoral research training in a limited number of biomedical science areas identified as having a shortage of research individuals.

T32 **Institutional National Research Service Award (NRSA)**--to enable institutions to make National Research Service Awards to individuals selected by them for predoctoral and postdoctoral research training in specified shortage areas

T34 **Minority Access to Research Careers (MARC) Undergraduate NRSA Institutional Grants**--to enable minority institutions to make National Research Service Awards to individuals selected by them for undergraduate research training in the biomedical and behavioral sciences

T35 **NRSA Short-Term Research Training**--to provide individuals with research training during off-quarters or summer periods to encourage research careers and/or research in areas of national need

T36 **MARC Visiting Professors for Minority Institutions** (NIGMS)--to increase the number of well-trained minority scientists in biomedical disciplines and to strengthen the research and teaching capabilities of minority institutions through a variety of training mechanisms such as visits by experienced scientists to minority institutions or workshops/conferences designed to enhance the research training experience of students/faculty from minority institutions

T37 **Minority International Research Training Grants** -awarded to domestic institutions supporting opportunities for biomedical and behavioral research training for minority students and faculty

members at foreign sites

b. Individual fellowships funded in FY 1993 included:

- **F05** **International Research Fellowships** (FIC)--to provide collaborative research opportunities for qualified non-immigrant alien scientists who hold a doctoral degree or its equivalent in one of the biomedical or behavioral sciences
- **F06** **Senior International Fellowships** (FIC)--to provide opportunities to outstanding mid-career faculty members from U.S. schools of medicine, osteopathy, dentistry, and public health with demonstrated productive scholarship and recognized stature in their profession to go abroad to study and share their expertise
- **F15** **Scholars-in-Residence Program** (FIC)--to facilitate the exchange of ideas among distinguished science leaders and scholars who will spend from 3 to 12 months in residence at NIH
- **F30** **Predoctoral Individual National Research Service Award for MD/PhD Fellowships** (ADAMHA)--for predoctoral training which leads to the combined MD/PhD degrees
- **F31** **Predoctoral Individual National Research Service Award**--to provide predoctoral individuals with supervised research training in specified health and health-related areas leading toward the research degree (e.g., Ph.D.)
- **F32** **Postdoctoral Individual National Research Service Award**--to provide postdoctoral research training to individuals to broaden their scientific background and extend their potential for research in specified health-related areas
- **F33** **National Research Service Awards for Senior Fellows**--to provide opportunities for experienced scientists to make major changes in the direction of research careers, to broaden scientific background, to acquire new research capabilities, to enlarge command of an allied research field, or to take time from regular professional responsibilities for the purpose of increasing capabilities to engage in health-related research
- **F34** **MARC NRSA Faculty Fellowships**--to provide fellowships to selected faculty members from minority institutions to enable them to obtain advanced training in specified health and health-related areas
- **F35** **Intramural NRSA Individual Postdoctoral Program Appointee**--for support of an individual postdoctoral trainee appointed for research training in the Intramural NRSA Research Training

Program

F37 **Medical Informatics Fellowships** (NLM)--to provide postdoctoral training to individuals in the synthesis, organization, and management of knowledge. The training should be interdisciplinary--involving medicine, biotechnology, and cognitive sciences, information science, and computer science

F38 **Applied Medical Informatics Fellowship**--to provide opportunities for scientists to make major changes in the direction of research careers for the purpose of engaging in the synthesis, organization, and management of knowledge

4. **Remaining Extramural Awards** are:

- Construction grants to create new research facilities
- Grants for repair, renovation and modernization of existing research facilities
- Medical library grants to establish or improve resources and services of libraries
- International training grants in epidemiology

Glossary

Activity Code A code assigned by the NIH to identify support mechanisms. General categories include research grants, contracts, training, and fellowships. Research grants, in turn, can be subdivided into research projects, research centers, and other research grants. (For definitions of individual codes, see Activity Codes, Organization Codes and Definitions Used in Extramural Programs, January 1994, NIH Manual Issuance 4101/6304-2.)

ADAMHA Alcohol, Drug Abuse, and Mental Health Administration. Effective October 1992, the service components of ADAMHA were assigned to the Substance Abuse and Mental Health Services Administration (SAMHSA) and the three research components of ADAMHA became part of the NIH. This added the National Institute on Alcohol Abuse and Alcoholism (NIAAA), the National Institute on Drug Abuse (NIDA), and the National Institute of Mental Health (NIMH) to the NIH.

Amendment (amended or revised applications) A resubmission of an application that has been revised in response to a prior review.

Application A formal request for support of a specific project or comparable activity.

Application Type Identifies type of application (**New**, **Competing Continuation**, **Noncompeting Continuation**, and **Supplement**).

Award Signifies that funds have been obligated and includes both direct and indirect costs unless indicated. (See **Grant**.)

BRDPI Biomedical Research & Development Price Index. The BRDPI is developed for the NIH to measure changes in the prices of items and services required for its research and development (R&D) activities. (See **Constant Dollars**, **Current Dollars**.)

Competing Continuation An application which requires competitive peer review and institute/center action to continue beyond the current competitive segment. Also known as a Renewal.

Constant Dollars Dollar amounts based on buying power in a certain base year. The Biomedical Research and

Development Price Index is used to find the constant dollar amounts from current dollar figures. (See **BRDPI.**)

Contract A funding mechanism in which the NIH procures specified services.

Council Each institute/center that awards grants has a statutorily mandated National Advisory Council or Board that provides the second level of review for grant applications. The Councils/Boards are comprised of both scientific and lay representatives. Council/Board recommendations are based not only on the consideration of scientific merit (as judged by the initial review groups), but also on the relevance of the proposed study to the institute's programs and priorities. With small exceptions, grants cannot be awarded without recommendations for approval by a Council/Board. Councils/Boards make recommendations to institute staff on funding. They also advise on the overall program of the particular institute they serve. (See **IRG.**)

CPI Consumer Price Index. Measures changes in prices of a broad range of consumer items. (See **BRDPI.**)

Current Dollars Actual dollars awarded, without adjustment for inflation. (See **Constant Dollars.**)

DFM Division of Financial Management

DHHS Department of Health and Human Services. A federal executive department of which the Public Health Service is a component.

Direct Cost Award component consisting of itemized equipment, personnel, travel, and other expenses necessary to carry out the research proposal. (Compare with **Indirect Cost, Total Cost.**)

DRG Division of Research Grants, NIH.

Extramural Awards Funds provided by the National Institutes of Health to organizations outside the NIH. (See **Intramural.**)

Fellowship An NIH training program award to an individual, where the NIH specifies the person receiving the award. Fellowships comprise the F activity codes. (See **Training.**)

FIRST Award (R29) First Independent Research Support and Transition Award. Intended to provide a sufficient initial period of research support for newly independent biomedical investigators to develop their research capabilities and demonstrate the merit of their research ideas.

Fiscal Year (FY) The period established for government accounting purposes. Fiscal year 1993, for example, started October 1, 1992 and ended September 30, 1993.

Fiscal Year of IRG Review The fiscal year in which the initial review groups (IRG) meet.

Funded Carryover A competing application which is unfunded at the end of a fiscal year, but subsequently (in the fiscal year under consideration) is funded.

Grant (award) Funding for a particular scientific inquiry from one of the NIH's institutes or centers.

HBCU Historically Black College or University. A college or university established prior to 1964 whose principal mission was the education of African Americans. Many HBCU's are located in the South. (See **Minority Institution, Traditionally or Predominantly African American Institution.**)

Institute/Center NIH institutes or centers; components of the National Institutes of Health (includes the National Library of Medicine). Institutes/centers can make extramural awards. Institutes/centers include:

AA	National Institute on Alcohol Abuse and Alcoholism (NIAAA)
AG	National Institute on Aging (NIA)
AI	National Institute of Allergy and Infectious Diseases (NIAID)
AR	National Institute of Arthritis and Musculoskeletal snd Skin Diseases (NIAMS)
CA	National Cancer Institute (NCI)
CL	Clinical Center (CC)
CT	Division of Computer Research and Technology (DCRT)
DA	National Institute on Drug Abuse (NIDA)
DC	National Institute on Deafness and Other Communication Disorders (NIDCD)
DE	National Institute of Dental Research (NIDR)

DK National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)
DS Division of Safety (DS)
ES National Institute of Environmental Health Sciences (NIEHS)
EY National Eye Institute (NEI)
GM National Institute of General Medical Sciences (NIGMS)
HD National Institute of Child Health and Human Development (NICHD)
HG National Center for Human Genome Research (NCHGR)
HL National Heart, Lung and Blood Institute (NHLBI)
LM National Library of Medicine (NLM)
MH National Institute of Mental Health (NIMH)
NR National Institute for Nursing Research (NINR)
NS National Institute of Neurological Disorders and Stroke (NINDS)
OD Office of the Director, National Institutes of Health
RG Division of Research Grants (DRG)
RR National Center for Research Resources (NCRR)
TW Fogarty International Center (FIC)
WH Women's Health Initiative (WHI, OD)

ICD (formerly BID) NIH institutes, centers, or divisions; of the National Institutes of Health (includes the Library of Medicine).

IMPAC (Information for Management, Planning, Analysis, and Coordination) The database which is the primary source of information for this publication. IMPAC is a computer-based system developed and maintained by the NIH Division of Research Grants for information concerning Public Health Service extramural programs. (For definitions of each item in IMPAC, see IMPAC Definitions and Specifications, Master File, July 1993.)

Indirect Cost Award component provided to help defray costs of institutional overhead and grant administration. The amount of indirect cost awarded is usually derived from the "indirect cost rate," a prearranged, negotiated percentage of the direct cost award. Separate rates are negotiated with each institution. Several research grant mechanisms are not eligible for full indirect cost reimbursement: foreign research grants; conferences (R13); education grants (R25); biomedical research support grants (S07,S10); small instrumentation grants (S15); research development grants (S08); research career

program awards (K's); minority student apprentice program (S03); and hazardous waste worker health and safety training programs (D42). (Compare with **Direct Cost, Total Cost.**)

Intramural Research conducted by, or in support of, employees of the NIH.

IRG Initial Review Group. The first level of a two-stage peer review system. These legislatively mandated panels of experts are established generally according to scientific disciplines or organ or disease areas. Their primary function is the review and rating of research grant applications for scientific and technical merit. They make recommendations for appropriate level of support and duration of award. (See **Council, Priority Score.**)

ISB Information Systems Branch, Division of Research Grants, NIH.

MARC Minority Access to Research Careers. Program to provide special research training opportunities in the biomedical sciences for students and faculty at 4-year colleges and health professional schools in which substantial student enrollments are drawn from minority groups.

MBRS Minority Biomedical Research Support. Program to strengthen the biomedical research and research training capability of ethnic minority institutions, and thus establish a more favorable milieu for increasing the involvement of minority faculty and students in biomedical research.

Mechanism See **Activity Code.**

MERIT Award (R37) Method to Extend Research in Time Award. Designed to provide long-term support to investigators whose research competence and productivity are distinctly superior and who are highly likely to continue to perform in an outstanding manner. Investigators may not apply for a MERIT award. Candidates are identified for the MERIT award during the course of review of competing research grant applications prepared and submitted in accordance with regular PHS requirements.

Minority Race/Ethnic group includes Native American, Asian or Pacific Islander, African American, and Hispanic.

Minority Institution An institution which draws a substantial share of its enrollments from minorities. They include

institutions with a traditionally high (more than 50 percent) minority enrollment and those with a significant proportion of students derived from ethnic minorities (but not necessarily more than 50 percent) and recognized by the Secretary of DHHS as having demonstrated a commitment to the special encouragement or assistance of minority students and faculty. (See **HBCU, Traditionally or Predominantly African American Institution.**)

New (application, award, grant) Refers to an application which has not received prior funding. (Compare with **Competing Continuation, Noncompeting Continuation, Supplement.**)

NIH National Institutes of Health

NIH/OD National Institutes of Health, Office of the Director

Noncompeting Continuation A year of continued support for an existing grant that had been funded previously. Applications for this continued support do not undergo peer review, but are administratively reviewed by the institute/center and receive an award based on prior award commitments. (See **New, Competing Continuation, Supplement.**)

NRFC Not Recommended for Further Consideration. Starting in FY 1992, as a result of study section review, an application may be considered not recommended for further consideration if it does not have "significant and substantial merit." This is a broader category than "disapproval," a term which is no longer used.

NRSA National Research Service Award. Includes awards to both individuals and institutions to provide research training in specified health related areas.

Other Research Grants All research grants not coded as research projects or research centers. (See **Research Projects, Research Centers.**)

Percentile Rank Percentile rank of a particular application is the percent of reviewed applications with priority scores equal to or better than that particular application. An application is usually percentiled based on all the applications reviewed within its own study section in three consecutive meetings. (See **Percentiling, Priority Score.**)

Percentiling The statistical mechanism that, since the October 1988 Advisory Council round, has been the major determinant of the funding decisions of all institutes. Each study section's applications that are recommended for further consideration are ranked in percentiles according to priority score. As with priority scores, the lower the numerical value, the greater the merit of the application. A basic assumption of percentiling is that the quality of reviewed applications is roughly equivalent among all study sections. (See **Percentile Rank, Priority Score.**)

PHS U.S. Public Health Service, which is part of the Department of Health and Human Services. NIH is the largest agency within the PHS.

Principal Investigator The grant applicant who is responsible for the scientific and technical direction of a project and in whose name the grant application is submitted.

Priority Score A priority score is assigned to an application that is recommended for further consideration by an initial review group (IRG). The score is a quantitative indicator of scientific and technical merit that ranges from 100 to 500. Individual IRG members assign scores from 1.0 (highest merit) to 5.0 (lowest merit). Under laws governing NIH's chartered advisory committees, only regular members or members of the NIH Reviewers Reserve (not ad hoc consultants) are permitted to vote on application quality. Votes were cast in 0.5 intervals until 1980. Since then, in order to achieve more precise scoring, votes have been cast in 0.1 intervals. The three-digit priority scores are the average of member votes multiplied by 100. (See **IRG.**)

Race/Ethnic Origin The category that most closely reflects the individual's recognition in the community should be used for purposes of reporting mixed racial and/or ethnic origins.

> **Native American** is a person having origins in any of the original peoples of North America, and who maintains a cultural identification through tribal affiliation or community. (PHS Form 398 identifies these as American Indian or Alaskan Native.)
>
> **Asian or Pacific Islander** is a person having origins in any of the peoples of the Far East, Southeast Asia, and the Indian subcontinent or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.

African American is a person having origins in any of the black racial groups of Africa. (PHS Form 398 identifies as Black.)

Hispanic is a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

White, not of Hispanic origin is a person having origins in any of the original peoples of Europe, North Africa, or the Middle East.

The term "**Underrepresented Minorities**" is used to describe those who are in smaller number in the biomedical sciences than would be their proportion in the general population. These include African Americans, Hispanics, and Native Americans.

Renewal See **Competing Continuation.**

Research Centers Research center grants support multidisciplinary, long-term research and development programs at research centers. Research centers usually have a clinical orientation and include all P activities (excluding NLM for all years and NCNR for FY 1986) that are not included in research projects; all M activities; selected U activities (U40, U41, U42, U54); R07 and G12.

Research Grants Extramural awards made for **Research Projects, Research Centers,** and **Other Research Grants.**

Research Projects (RPG) Primarily investigator-initiated, basic scientific research. Activity codes for research projects in FY 1993 are as follows: R01, R22 (no awards in FY 1993), R23 (no awards in FY 1993), R29, R35, R37, R43, R44, R55, P01, P42, U01, U19, U43, and NIGMS P41 (no awards in FY 1993). Excludes NCRR for fiscal years prior to FY 1990, NLM for all years, NCNR for FY 1986, and U01 for FY's 1980 and 1981. For definitions of these codes, see Activity Codes, Organization Codes, and Definitions Used in Extramural Programs, January 1994, NIH Manual Issuance 4101/6304-2.

Review The dual-level examination of an application for scientific merit and program relevance. (See **IRG, Council.**)

RPG Research project grant. (See **Research Projects.**)

SAES Statistics, Analysis and Evaluation Section, Information Systems Branch, Division of Research Grants, NIH.

SBIR Award (R43, R44, U43, U44, N43, N44) Small Business Innovation Research Award. Designed to support projects that may ultimately have commercial viability.

Success Rate Computed on a fiscal year (FY) basis. Indicates the percentage of reviewed applications that receive funding. It is computed by dividing the number of competing applications funded by the sum of: (1) total number of competing applications reviewed, (2) number of funded carryovers, (3) number of applications eliminated during triage. Applications that have one or more amendments in the same fiscal year are counted only once in success rate computation. (See **Funded Carryover**, **Triage**.)

Supplement A request for additional funds either for the current operating year or for any future year recommended previously. A supplement can be either noncompeting (administrative) or competing (subject to peer review).

Total Cost The sum of the **Direct Cost** plus the **Indirect Cost.**

Traditional Research Project Award (R01) Intended to support a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing their specific interest and competencies.

Traditionally or Predominantly African American Institution An institution with a significant African American population. These institutions are eligible for MARC and MBRS programs. (See **HBCU**.)

Training Training awards support the research training of scientists for careers in the behavioral and biomedical sciences, as well as help professional schools to establish, expand, or improve programs of continuing professional education. Training awards consist of institutional training grants (**T** mechanisms) and individual fellowships (**F** mechanisms). (See **Fellowship**.)

Triage The process of eliminating from review those applications submitted in answer to a request for applications (RFA) which were judged to be of noncompetitive quality.

Related Publications

DRG Peer Review Trends: Member Characteristics for DRG Study Sections, Institute Review Groups, Advisory Councils and Boards, 1981-1991

Charts and commentary describing 10-year trends in the characteristics of NIH peer reviewers and members of advisory councils and boards.

DRG Peer Review Trends: Actions of DRG Study Sections, 1983-1992

Charts and commentary describing 10-year trends in the workload and actions of DRG study sections.

NIH Data Book 1993

Financial information on NIH programs and related Federal and national activities.

NIH Extramural Trends: FY 1984-1993

Annual series of charts and commentary describing 10-year trends in NIH extramural awards.

NIH New Grants and Awards

Quarterly listing of new awards arranged by grant mechanism and by State, city, institution, principal investigator; includes research title, grant number, dollars awarded.

NIH Peer Review Notes

Information on DRG and Institute peer review policies and procedures published periodically (usually prior to scientific review meetings) for NIH consultants and staff.

NIH Peer Review of Research Grant Applications

Graphic information designed to accompany presentations on the NIH peer review process for fiscal 1990; available on paper, slides, and videotape.

Minorities in NIH Extramural Grant Programs, 1982-1991

Charts and commentary describing 10-year trends in NIH support by race/ethnic group of applicant.

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