

National Cancer Institute



U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES
National Institutes
of Health

Workforce and Diversity Training

Sanya A. Springfield, Ph.D.
Director, Center to Reduce Cancer Health Disparities
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Continuing Umbrella Research Experiences



CONTINUING UMBRELLA OF RESEARCH EXPERIENCES



Cancer Center Grant Supplement: P30s

Diversity Research Supplements

NRSA Fellowships: F31

Career Awards (Mentored): K01 K08 K23

Career Transition (Non-mentored): K22



CRCHD Diversity Training Unique Features

CURE Pipeline:



Offers multiple mechanisms across education/ career levels to facilitate transitions and progression to independence

Program Navigation:



Provides coaching, mentoring, mock review to foster competitiveness to achieve independence

CRCHD Diversity Training

Outcomes/Metrics

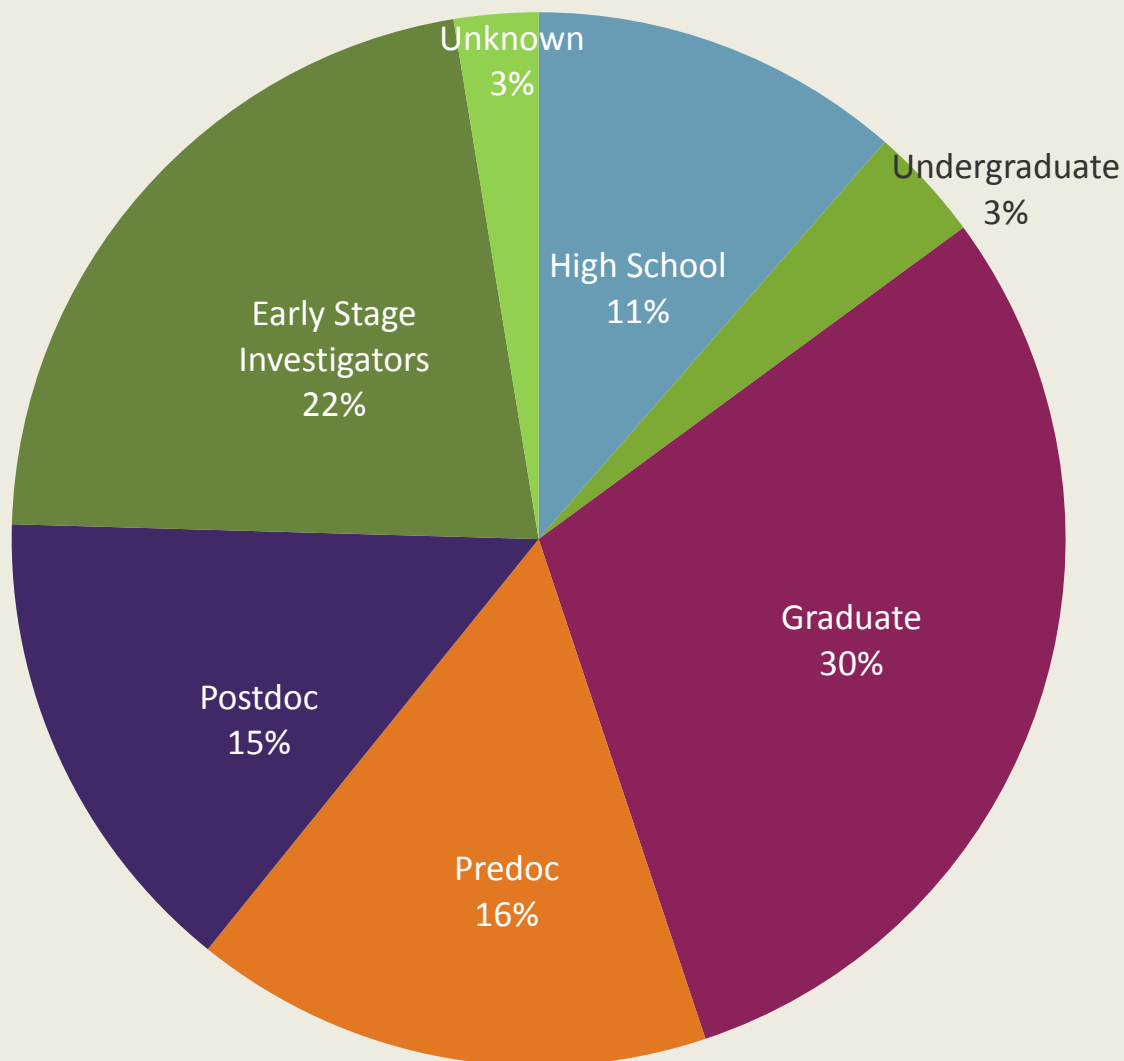
- *Transition & Retention* – Graduate or complete training position and progress from one educational/career level to the next, until independent investigator
 - Graduation rate*
 - Education level progression
 - Career level progression
 - Academic Position
- *Competitiveness* – Able to secure additional funding to complete education and/or to conduct research as an independent investigator
 - Publications
 - Total Grant Applications and Awards**
 - Peer Review and Advisory Committee Participation

*US Department of Education, National Center for Education Statistics – Condition of Education 2010 --- National average for underrepresented groups is <10%

** National Science Foundation , Division of Science Resources Statistics 2009. Women, Minorities and Persons with Disabilities in Science and Engineering. NSF 09-305

CURE Trainees by Education/Career Level Pipeline

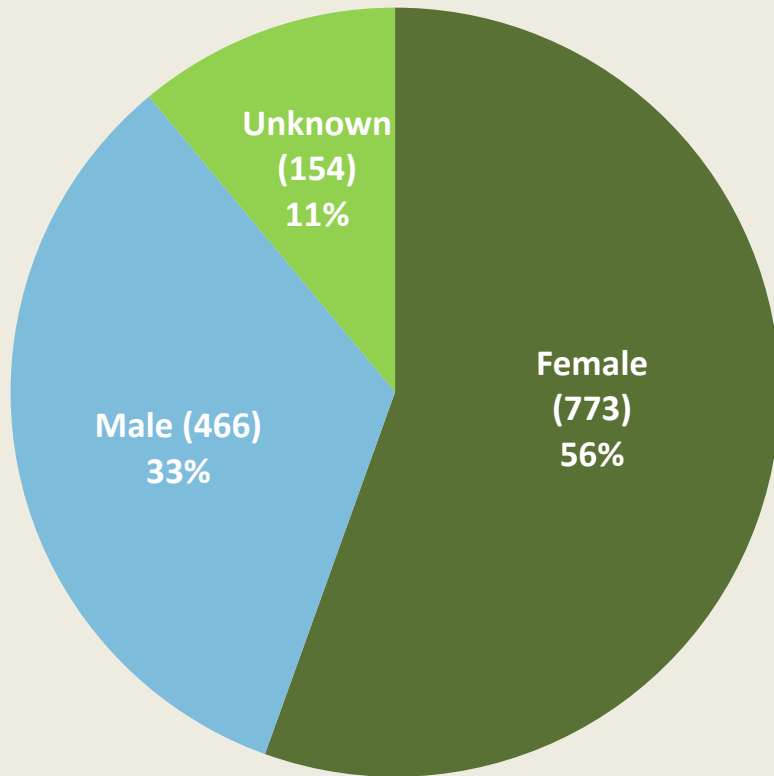
2001-2010



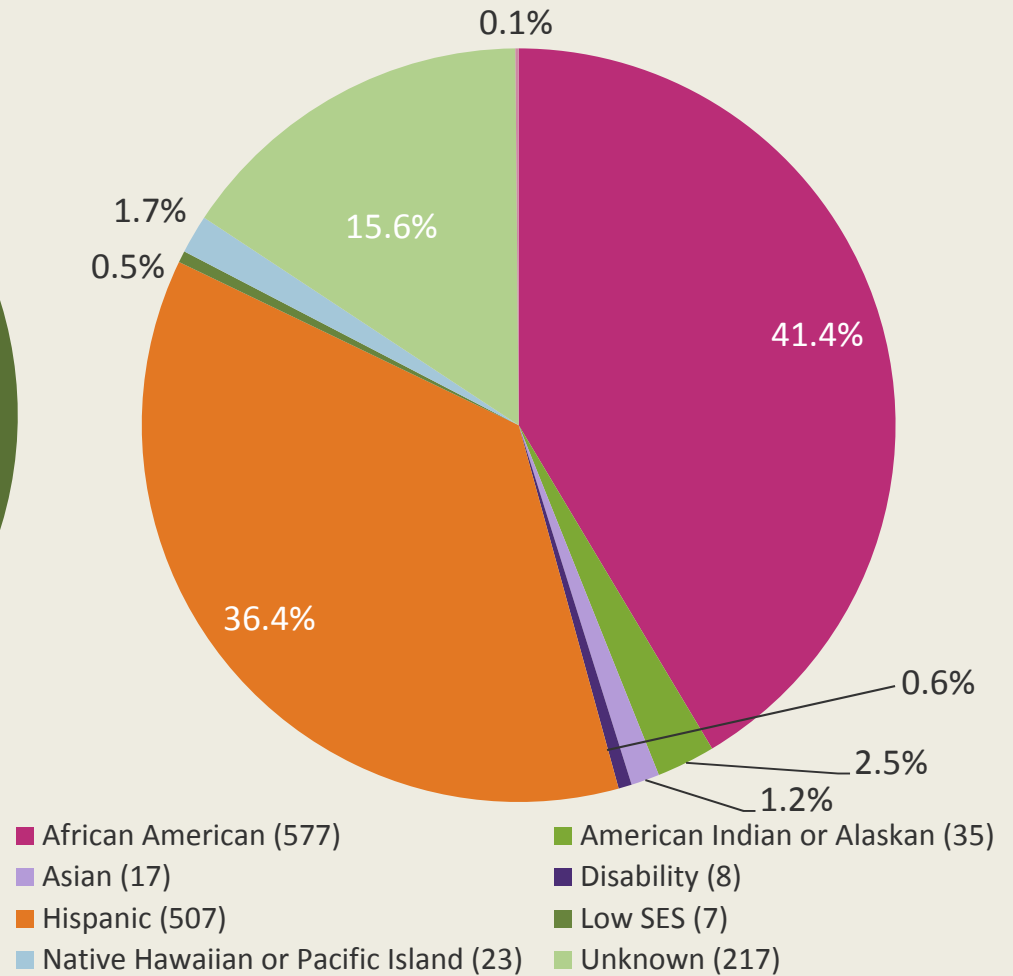
High School	159	11.4%
Undergraduate	49	3.5%
Graduate	417	29.9%
Pre-doctoral	222	15.9%
Postdoctoral	204	14.6%
Early Stage Investigators	306	22.0%
Unknown	36	2.6%
Total	1393	100%

CURE Trainees by Race/Ethnicity and Gender

Gender

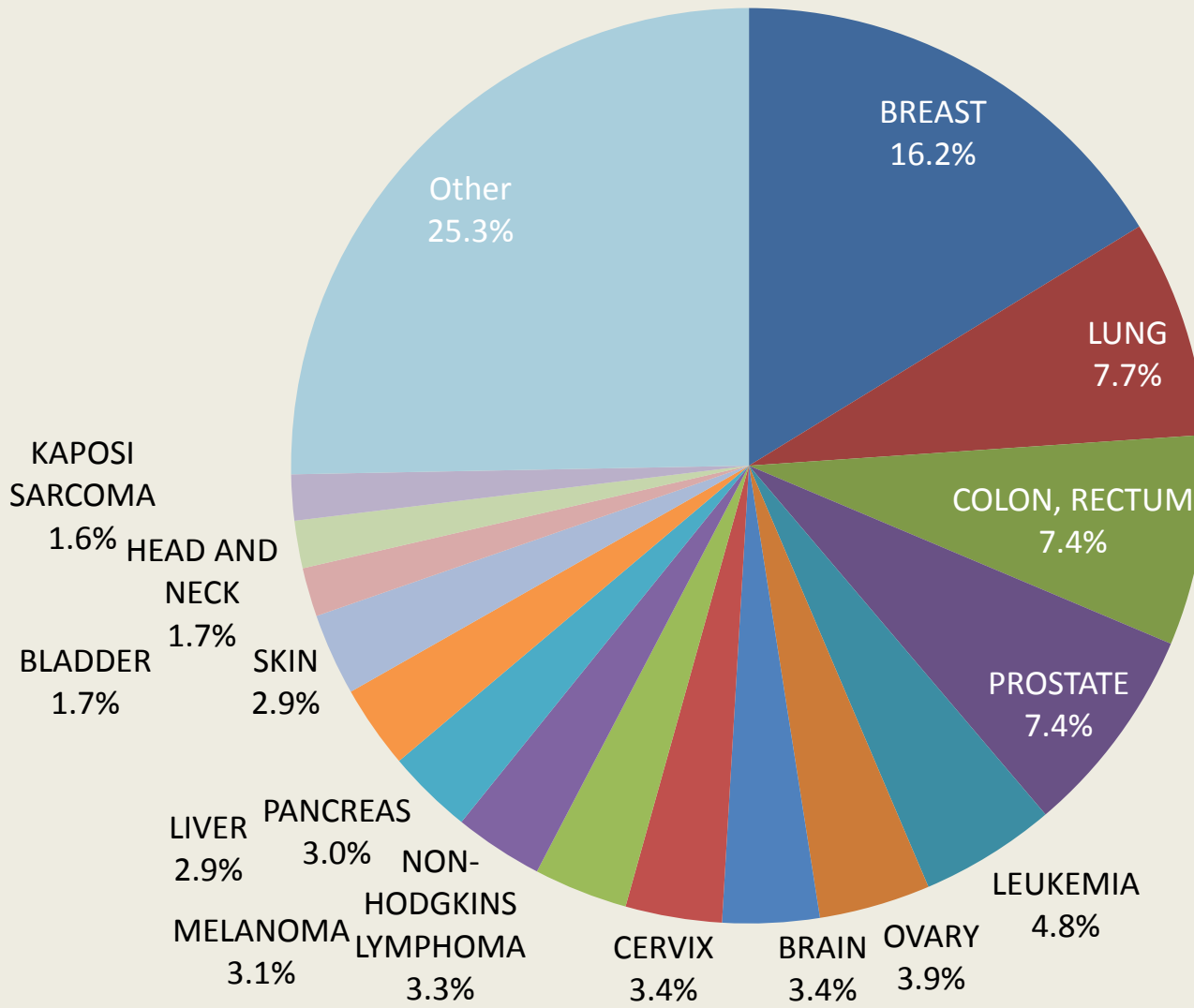


Race/Ethnicity or Request Type



CURE Cancer Research Areas

17% percent increase focusing on Cancer Health Disparities (CHD) from 2009



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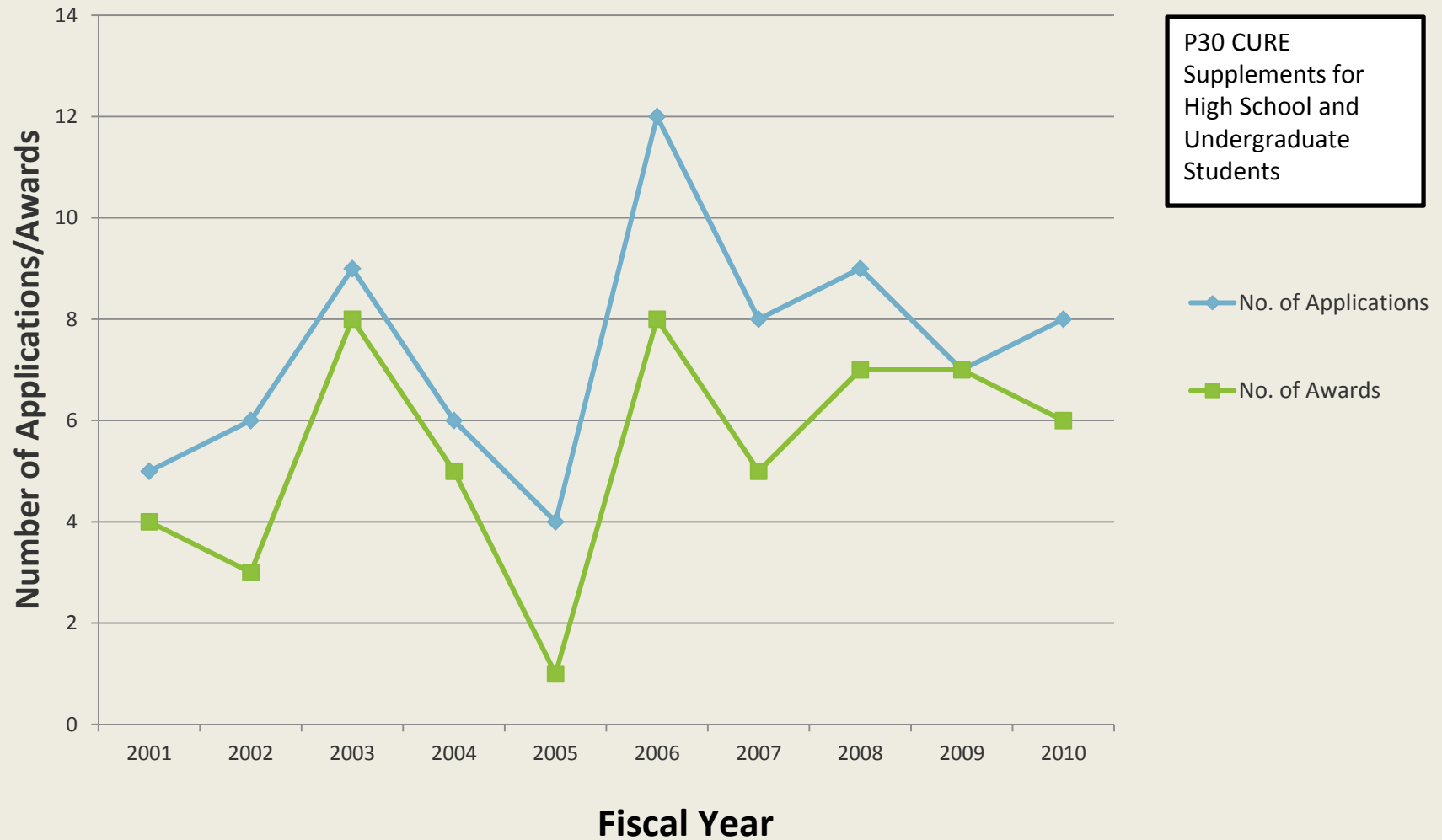
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CURE Supplement (P30) Awards



CURE Supplements (P30): High School to Undergraduate



Race/Ethnicity	Student Progress after CURE Supplement Program		Total
	Number of Students in Undergraduate School	Unknown	
Hispanics	35 (33%)	70	105
African Americans	69 (33%)	138	207
First Generation College	10 (35%)	19	29
Native Americans	3 (38%)	5	8
Asians	16 (33%)	32	48
Pacific Islanders	16 (34%)	31	47
Unknown		103	(103)
TOTAL	149 (33%)*	398	444 (547)*

US Department of Education, National Center for Education Statistics – Condition of Education 2010 --- National average for underrepresented groups is <10%

*Excludes unknowns

CURE Supplements (P30): Undergraduate to Advanced Degrees



Race/Ethnicity	Student Progress after CURE Supplement Program			Total
	Number of Students in Graduate School	Number of Students in Professional School	Unknown	
Hispanics	84 (54%)	38 (24%)	34	156
African Americans	87 (53%)	40 (24%)	38	165
First Generation College	7 (50%)	1 (7%)	6	14
Native Americans	2 (29%)	1 (14%)	4	7
Asians	19 (68%)	8 (29%)	1	28
Pacific Islanders	16 (57%)	5 (18%)	7	28
Unknown			5	(5)
TOTAL	215 (54%)*	93 (23%)*	95	398(403) *

US Department of Education, National Center for Education Statistics – Condition of Education 2010 ---

National average for underrepresented groups is <10%

* Excludes unknowns

Continuing Umbrella Research Experiences



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Cancer Center Grant Supplement: P30s

Diversity Research Supplements

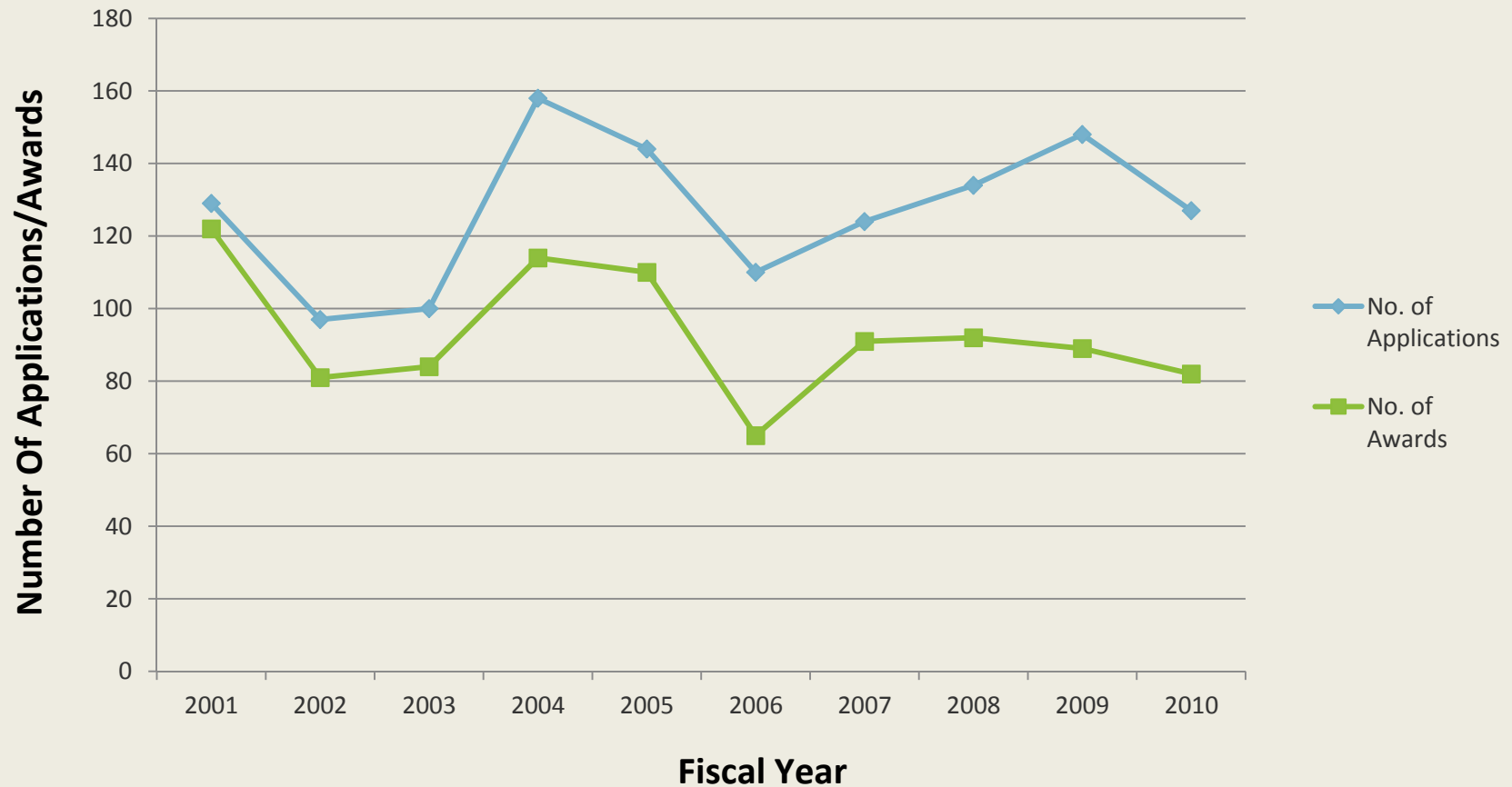
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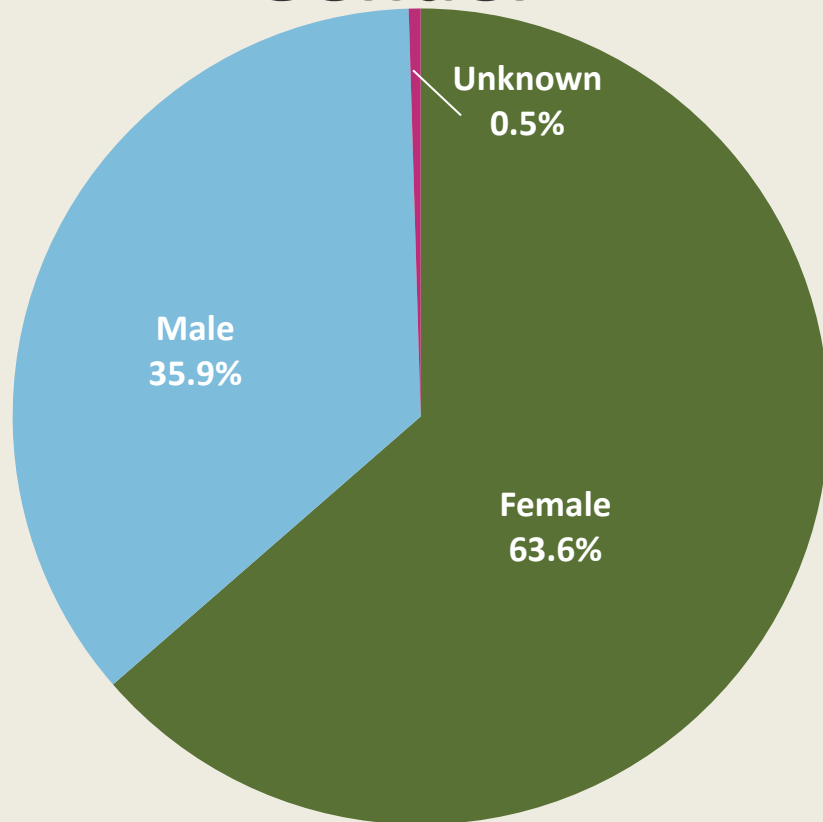


Diversity Supplement Awards

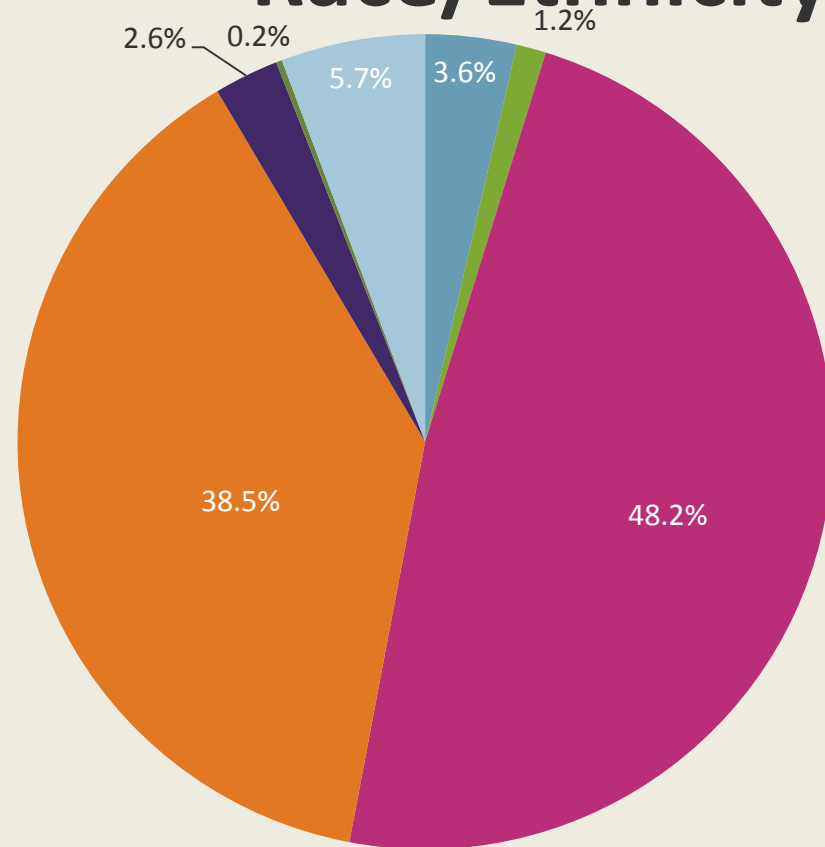


Diversity Supplement Trainees

Gender



Race/Ethnicity



- American Indian or Alaskan
- African American
- Native Hawaiian or Pacific Isl
- Unknown
- Asian
- Hispanic
- White

Diversity Supplement: Graduation Rate



Degree and Race/Ethnicity	No. of Awards	% of Successful Completion of Degree	% Conferred to Females
Bachelor's	73	94%	
African Americans	32	88%	64%
Hispanics	30	83%	61%
Pacific Islanders	5	100%	40%
Native Americans	5	100%	60%
First Generation College	2	100%	50%
Masters	132	87%	
African Americans	61	90%	65%
Hispanics	61	90%	62%
Asian/Pacific Islanders	4	100%	50%
Native Americans	6	67%	67%
Doctoral	269	89.5%	
African Americans	125	90%	65%
Hispanics	125	89%	61%
Pacific Islanders	10	90%	40%
Native Americans	9	89%	78%
Total	**474	*91%	59%

*National average for underrepresented groups is <10%

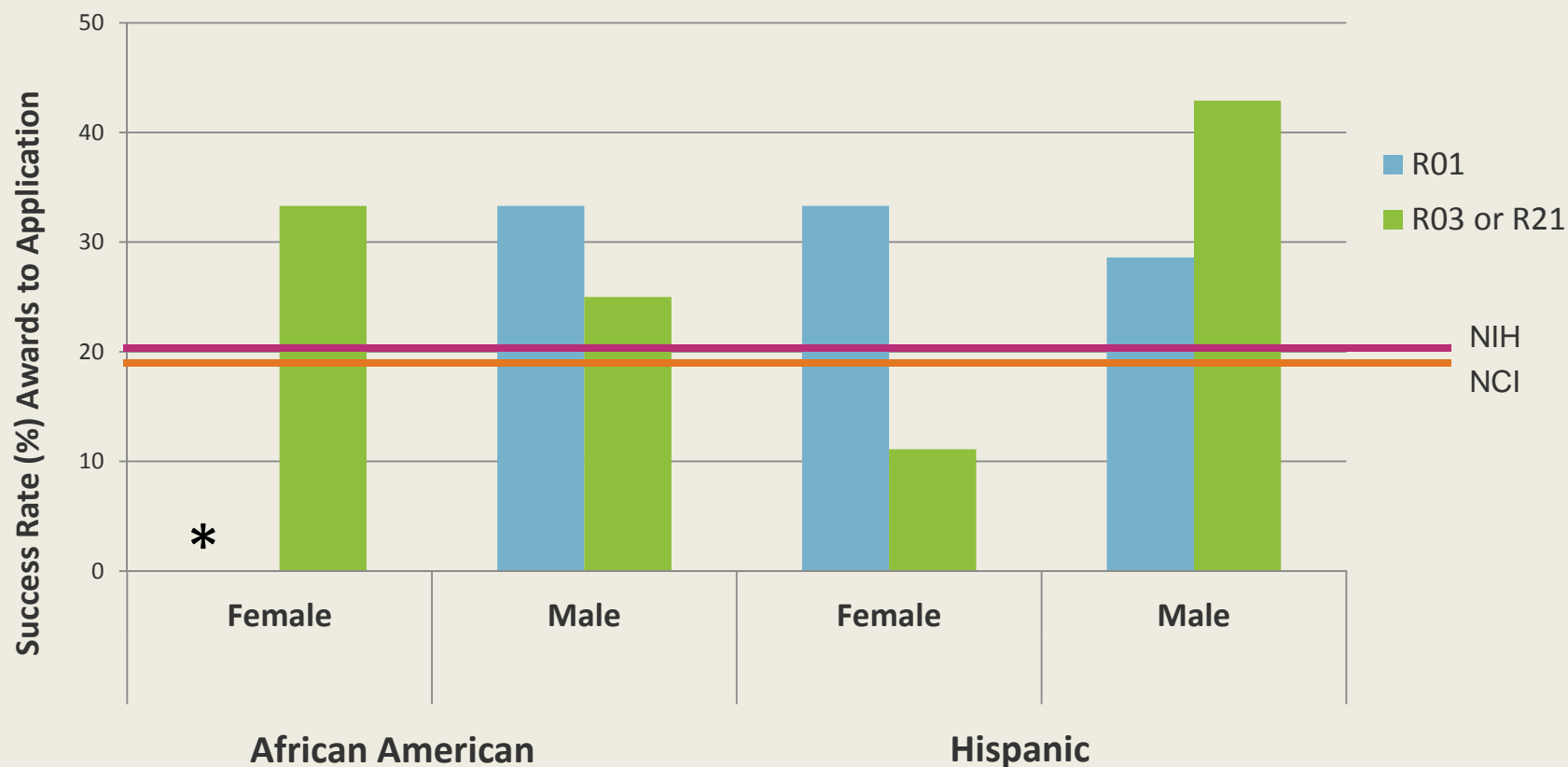
**Does not include 62 awards that remain active

Diversity Supplement: Competitiveness toward Independent Awards



Career Level of Trainees	Independent Grant Mechanisms	Percent Success
Pre-Doctoral Students	NRSA (F-31)	73%
Post-Doctoral Fellows	Career Development (K Awards)	80%
Early Stage Investigators	R01	33%
	Other RPGs	30%

Diversity Supplement Competitiveness: Success Rate of Obtaining R01/R03/R21



* At least one AA female has received an R01

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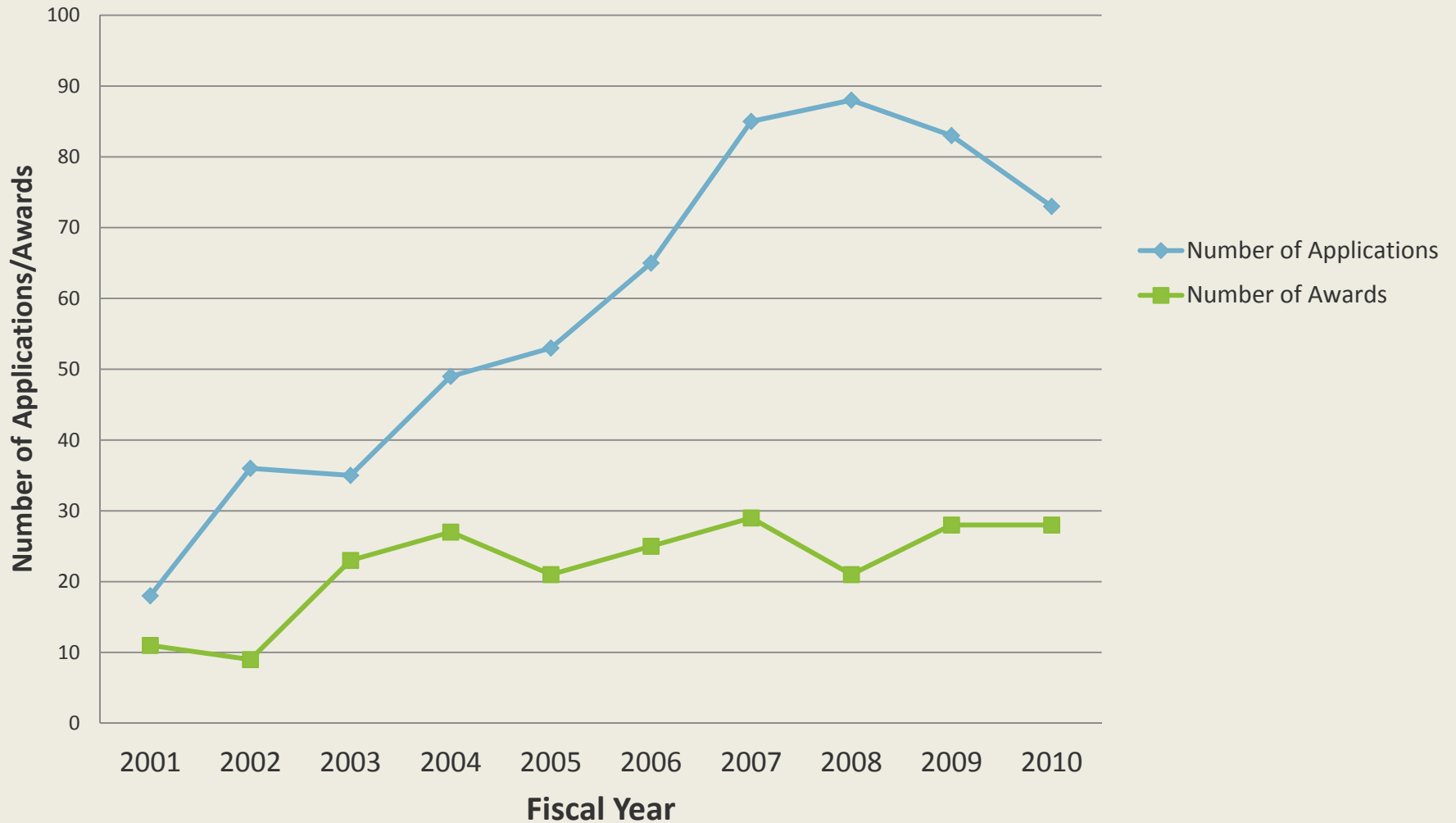
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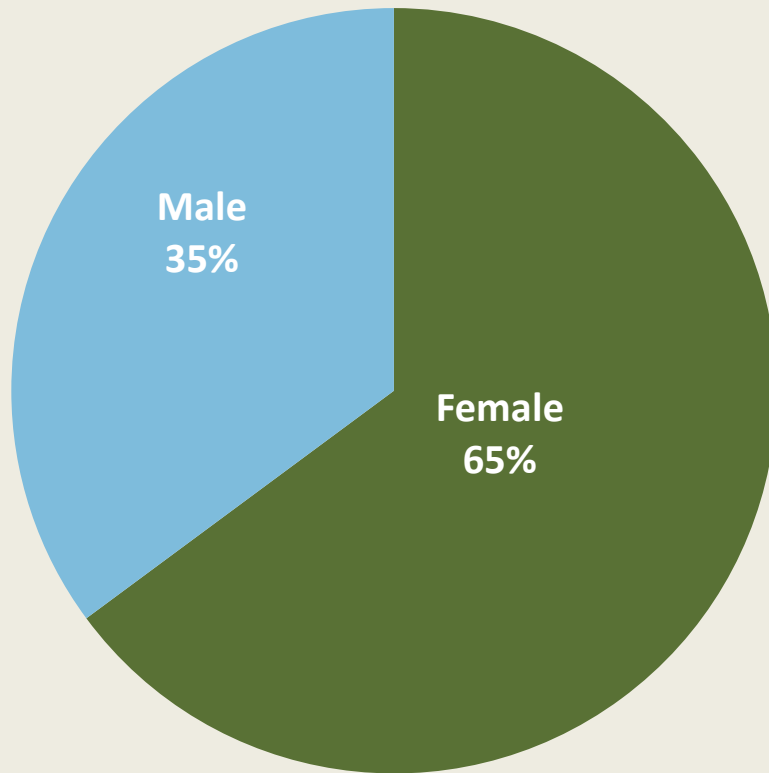


NRSA Pre-Doctoral (F31) Awards

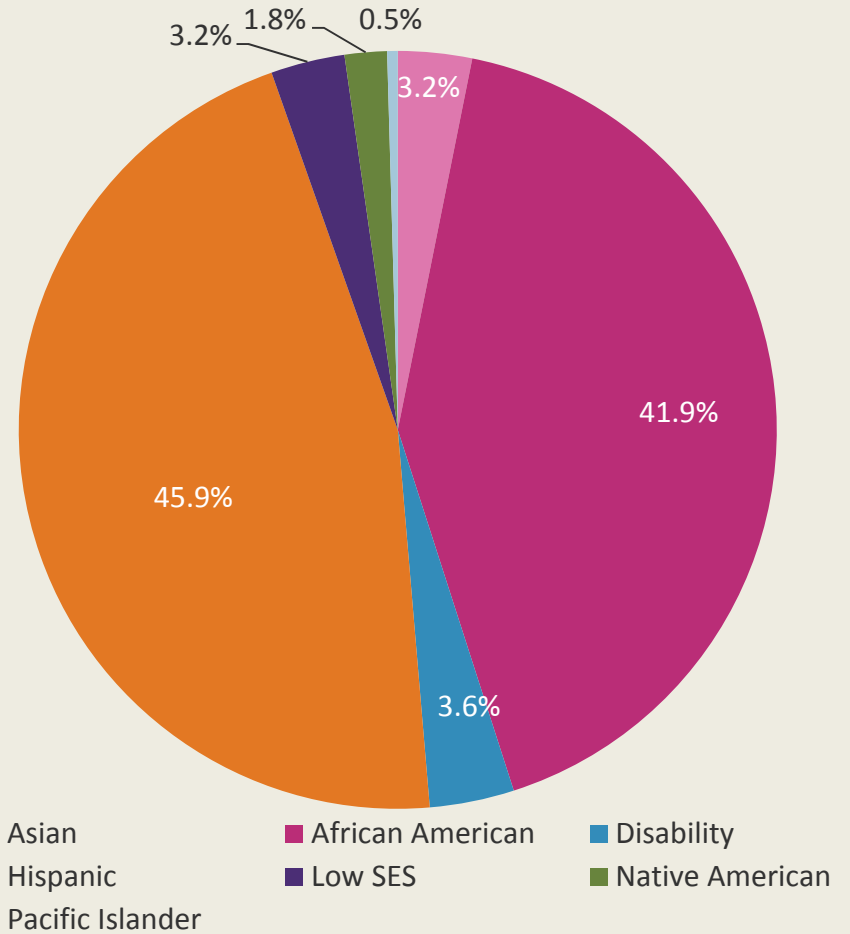


Pre-Doctoral (F31) Trainees

Gender



Race/Ethnicity or Request Type



Pre-Doctoral (F31) Graduation Rate



Eligibility	Awards	Completion % of PhD	% of PhD Conferred to Females
African Americans	63	98	100
Hispanics	77	99	100
Disability	4	75	75
Asians/Pacific Islander	5	100	100
Native Americans	4	100	100
Low SES	3	100	100
Total	**156	*95	96

*National average for underrepresented groups is <10%

**N=222 awards 2001-2010 / 66 awards still active

Pre-Doctoral Success Rates



- Transitions and Retention:
 - ✓ 95% remain in biomedical positions
 - ✓ 67% moved into post doc training
 - ✓ 11% moved into industry (scientists or post-doctoral training)
 - ✓ 9% in medical residence as part of their MD/PhD
- Competitiveness: 26% success rate of F31 graduates applying for NIH grants, including R01
- Cancer Health Disparities Research: 14% focus on CHD

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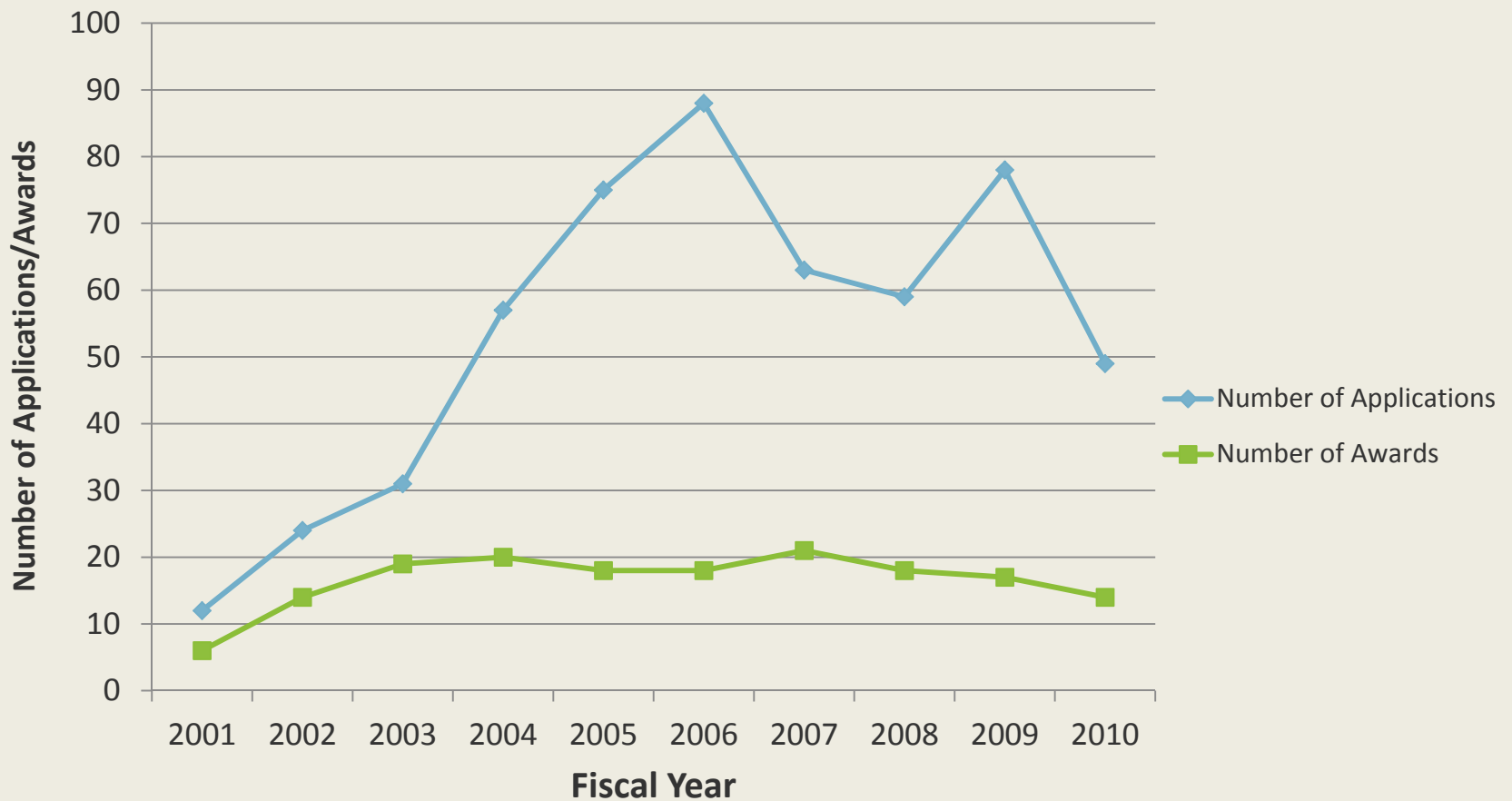
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K01 K08 K23

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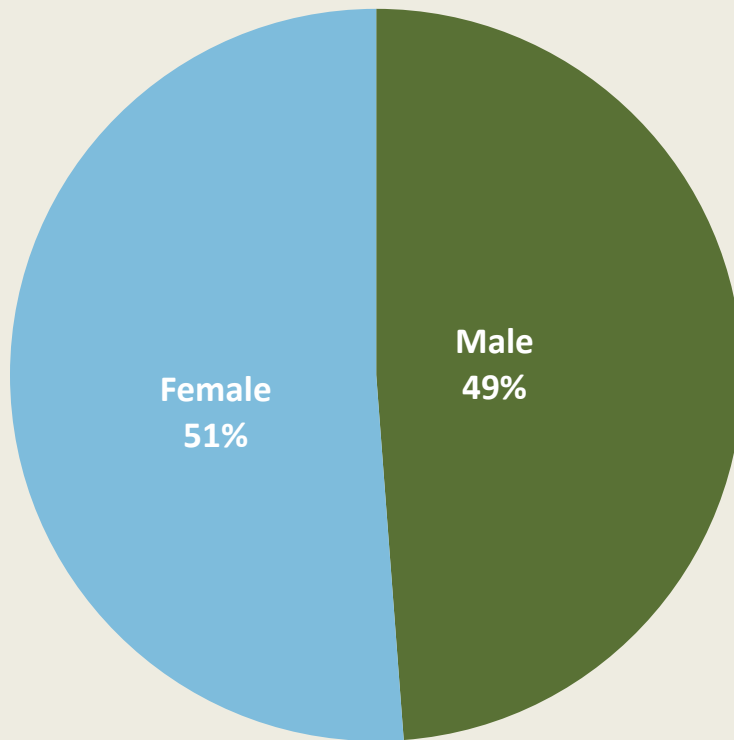


Career (K Series) Awards

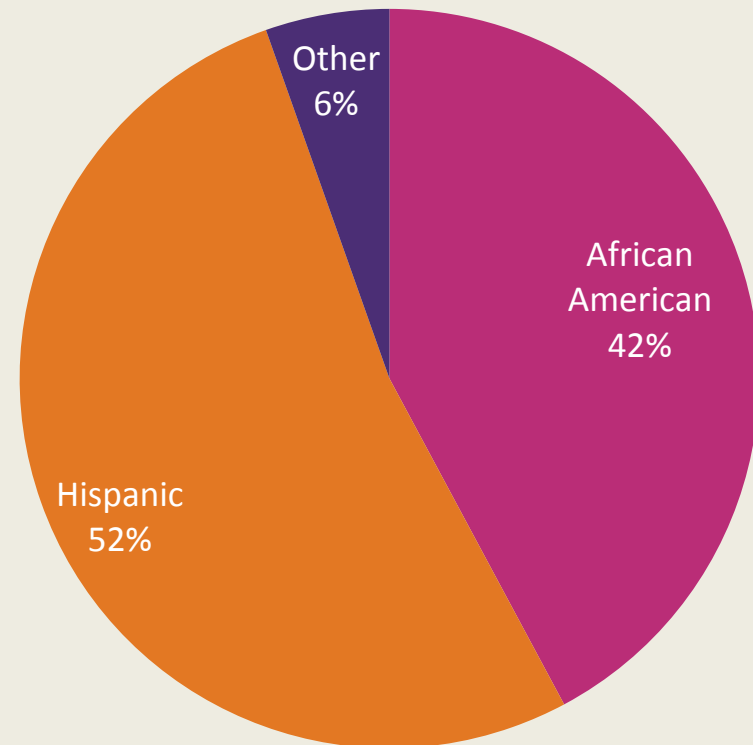


Career (K Series) Awards

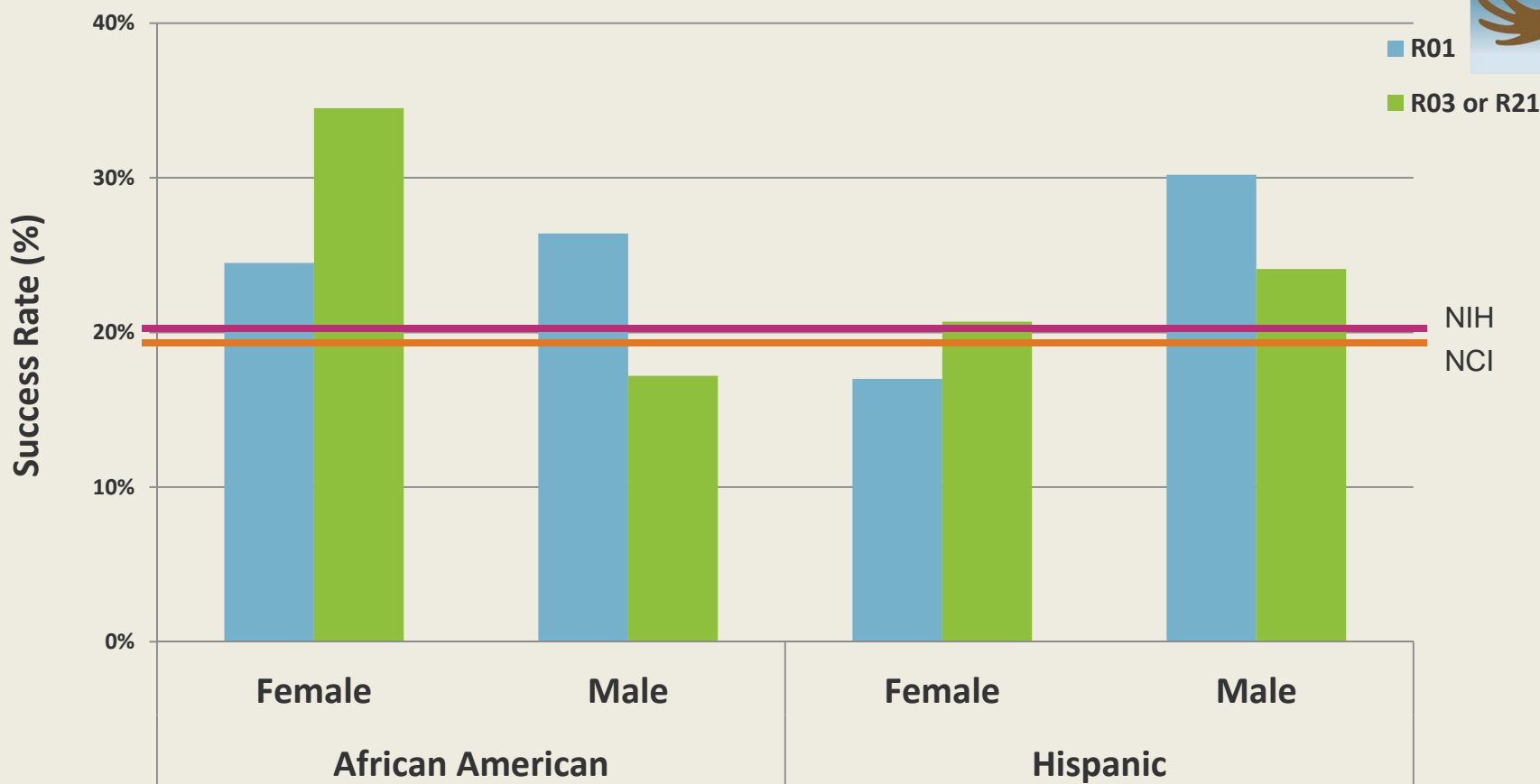
Gender



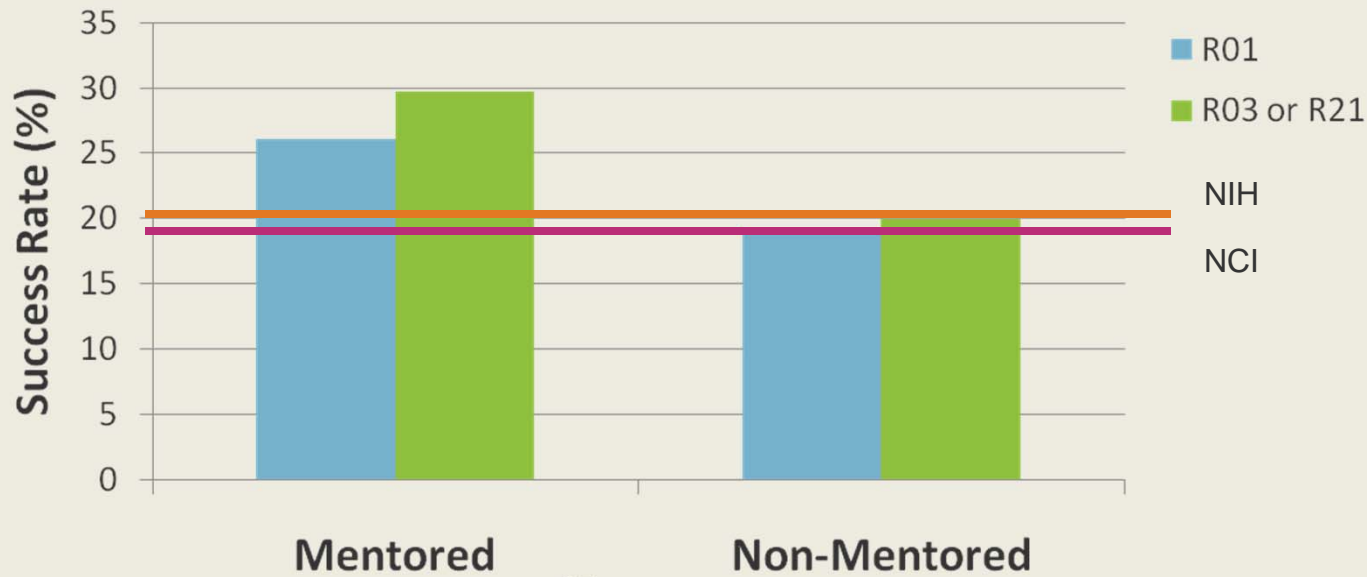
Race/Ethnicity



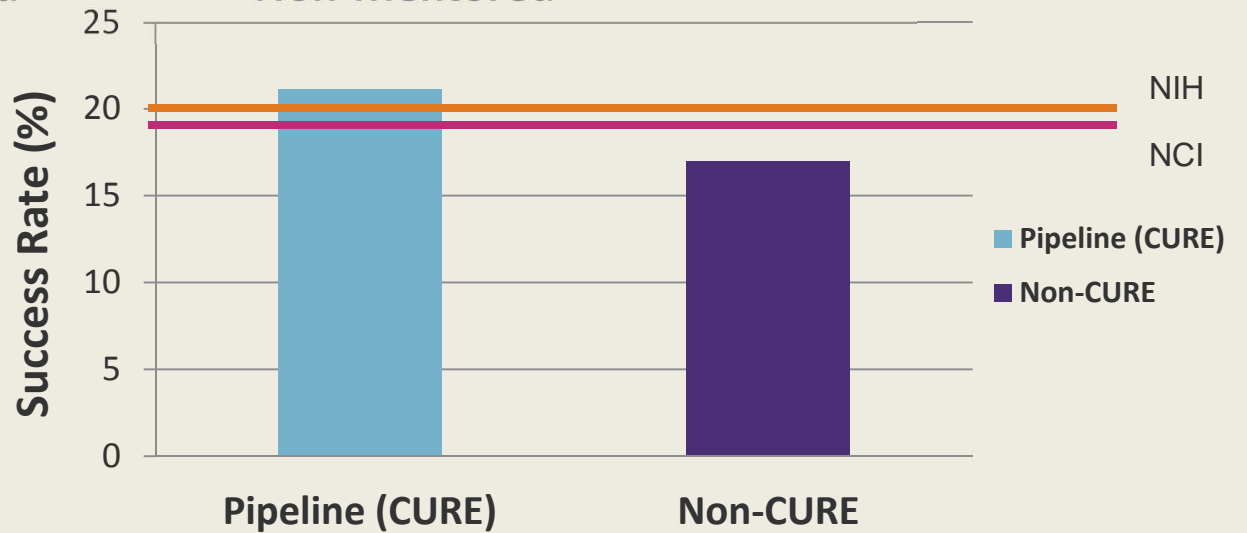
Career Competitiveness: Success Rates of Obtaining R01/R03/R21 by Race/Ethnicity and Gender



Career (K Series) Competitiveness: Success Rate of Obtaining R01/R03/R21



**Non
Mentored**



Peer Review and Advisory Committee Participation

Mock Review Participation	164
NCI Ad hoc Review Subcommittee Manpower & Training (IRG)	41
NCI/NIH IRG and CSR Review Committees Subcommittees: F (training), G (education), I (career), J (population and patient-oriented) NCI Molecular Oncology SBIR Cancer Imaging SPORE Experimental Therapeutics	34
NCI Advisory/Review Committees: NCI Board of Scientific Counselors NCI Board of Scientific Advisor	4
Committees Outside NIH DoD Breast Cancer Research Program ASCO Science Committee Myeloma Research Foundation AACR Minority in Cancer Research	30

Academic Appointments

Tracy R. McKnight, Ph.D., Department of Radiology and Biomedical Imaging University of California San Francisco



Alex A. Adjei, MD PhD - Professor and Chair, Department of Medicine, and Senior Vice-President for Clinical Research at Roswell Park Cancer Institute in Buffalo, NY, USA.



Miguel A. Villalona, MD - Professor of Medicine and Hematology/Oncology, the Ohio State University School of Medicine

Eduardo M. Sotomayor, MD – Senior Member, H. Lee Moffitt Cancer Center, FL



Felipe Samaniego, M.D., M.P.H., Associate Professor, Division of Cancer Medicine UT MD Anderson



Robert Winn, M.D. Associate Professor, Department of Pathology University of Colorado, School of Medicine, Denver



Melinda Mahabee-Gittens, MD, Department of Pediatrics - University of Cincinnati, OH

June McKoy, J.D., M.D., MPH, Department of Medicine Feinberg School of Medicine, North Western University, Chicago



Summary

- ***Transition & Retention:*** CRCHD underrepresented trainees have successful rates of completion and progression (20-90%)
 - *National Average <10%*
- ***Competitiveness:*** CRCHD trainees have better or comparable R01 success rates (17-33%)
 - *NIH 20% / NCI 19%*

Pipeline and Program Navigation-Unique Features make a difference