

## Planning the Future

## Benchmarking the Present

W. Kent Fuchs

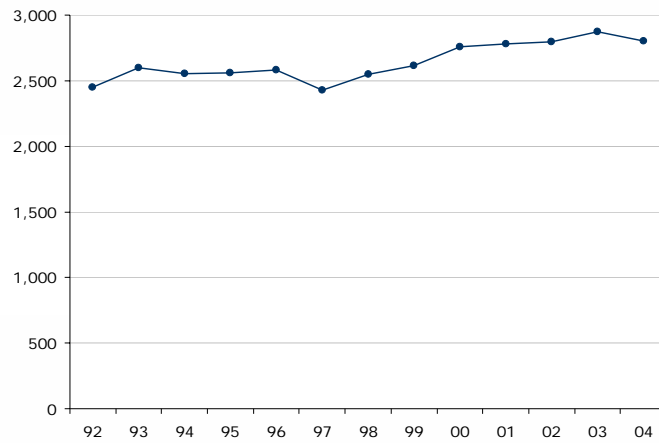
Engineering College Council Meeting

October 7, 2004

## College Developments

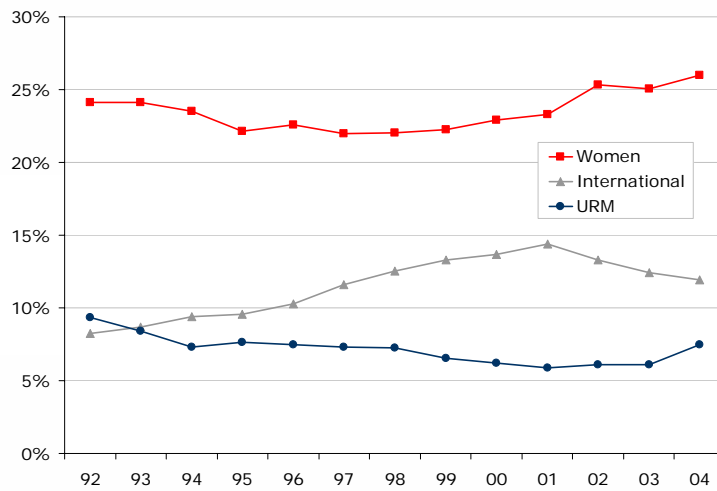
- > ABET Review on November 21-23
  - Biological Engineering
  - Chemical Engineering
  - Civil Engineering
  - Electrical and Computer Engineering
  - Materials Science and Engineering
  - Mechanical Engineering
- > New Academic Programs
- > International Programs
- > Capital Campaign Status
- > New Facilities Progress
- > College Communication Strategy
- > NRC Rankings – postponed until at least 2007

## Engineering Undergraduate Enrollment



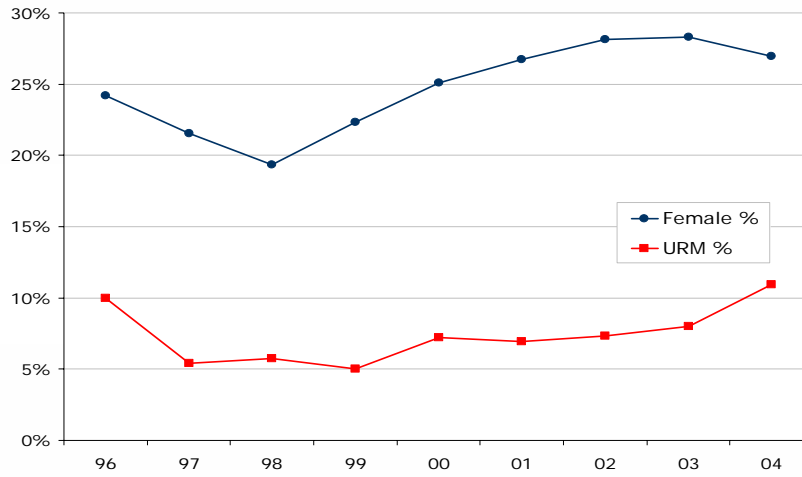
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## Undergraduate Women, Minorities and International



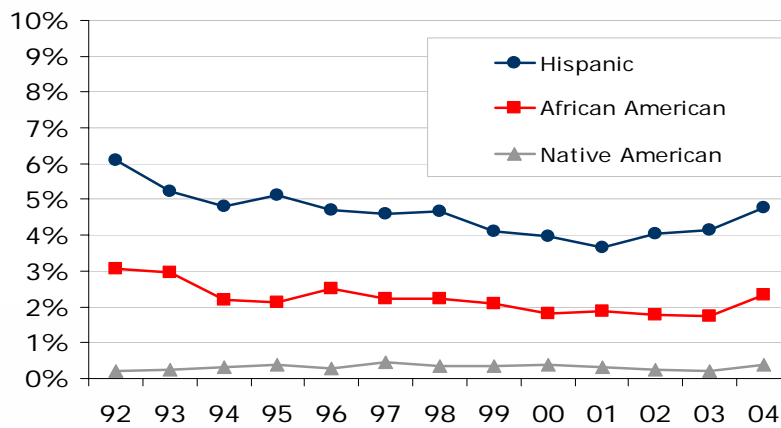
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## First Year Undergraduate Women and Minorities



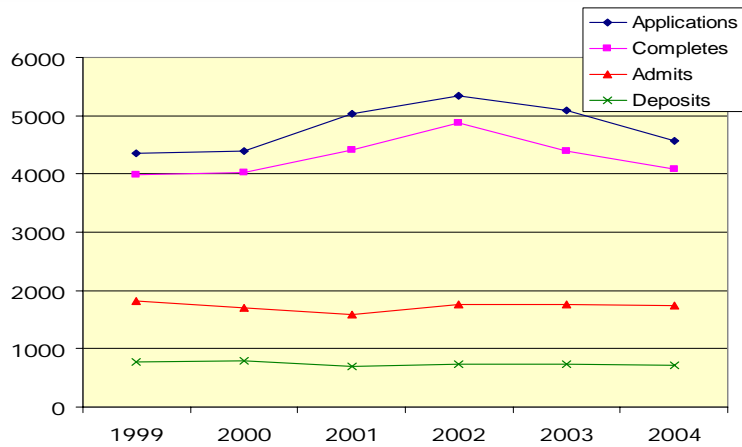
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## Undergraduate URM Ethnicity



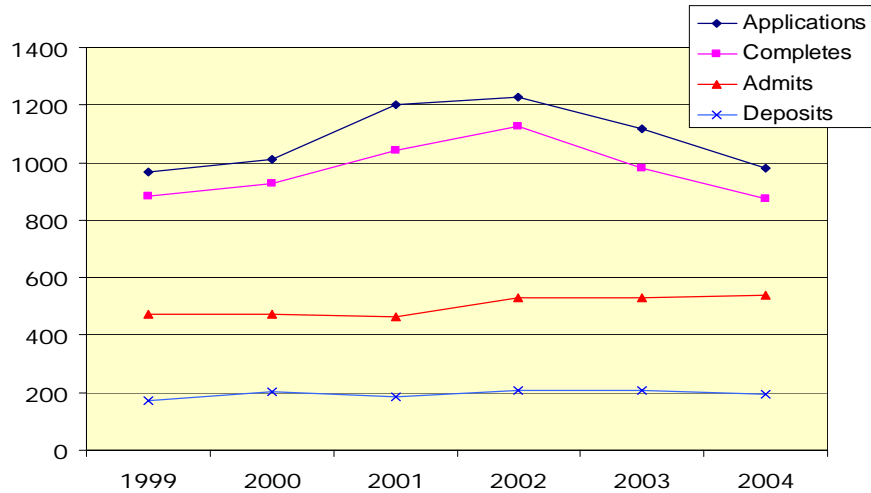
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## Total Applications for Admission



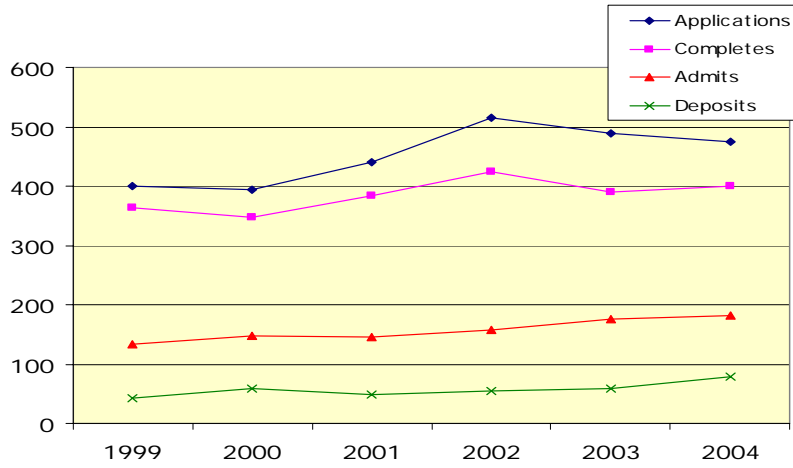
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## Applications - Women



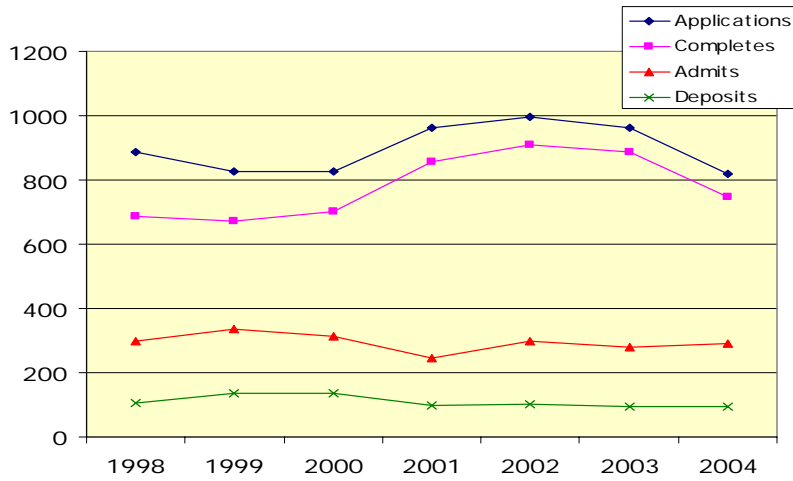
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## Applications – Underrepresented Minorities



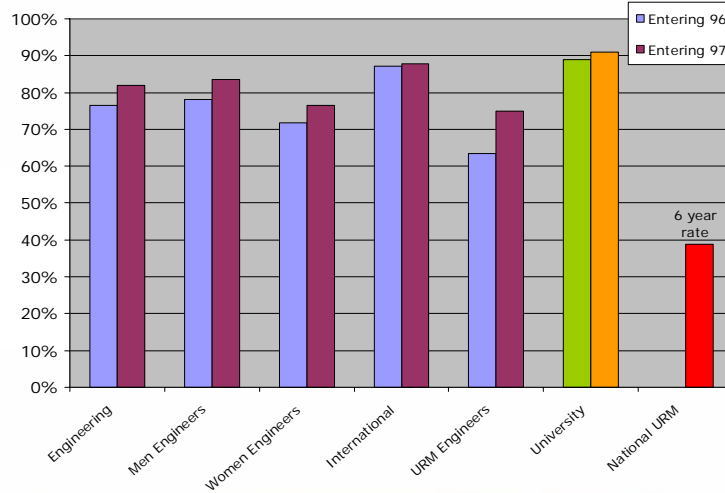
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## Applications - International



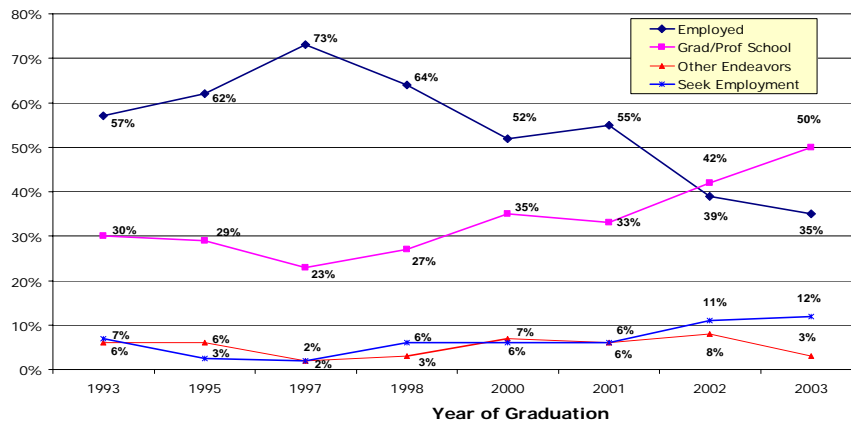
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## Graduation Rate – Five Year (1996 and 1997 incoming classes)



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## Undergraduate Post Graduate Activities

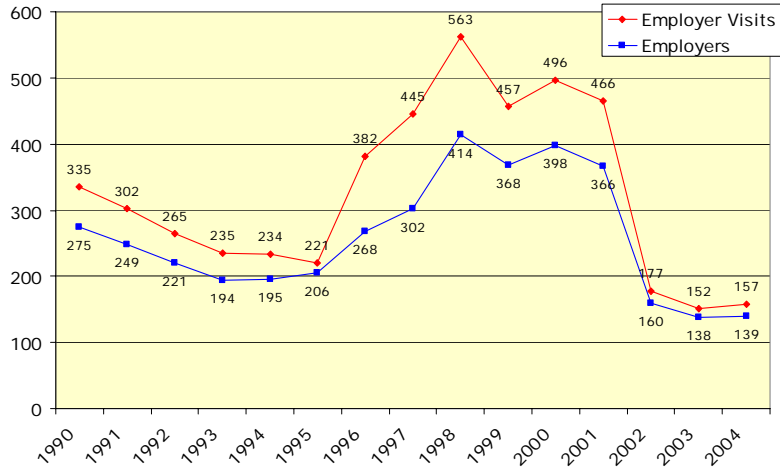


\*( Note: University Survey Process Changed in 1998, moving from odd- to even-numbered Years, and annually after 2000-- No Survey Was Produced in 1999. )

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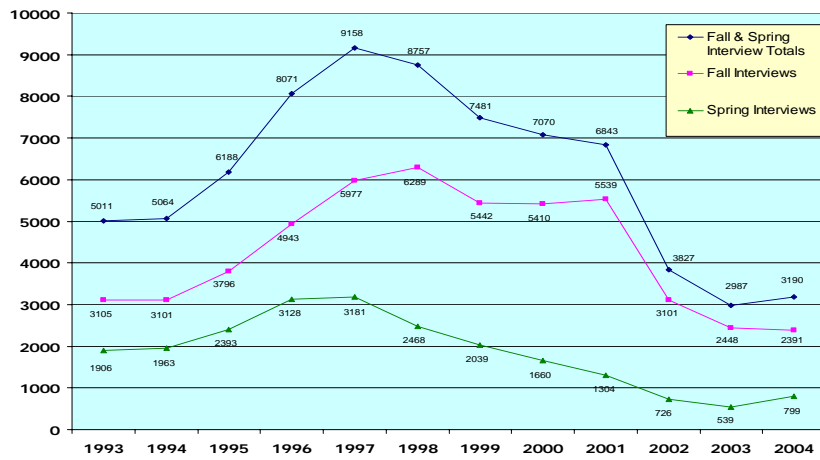


## Employer Recruitment Visits



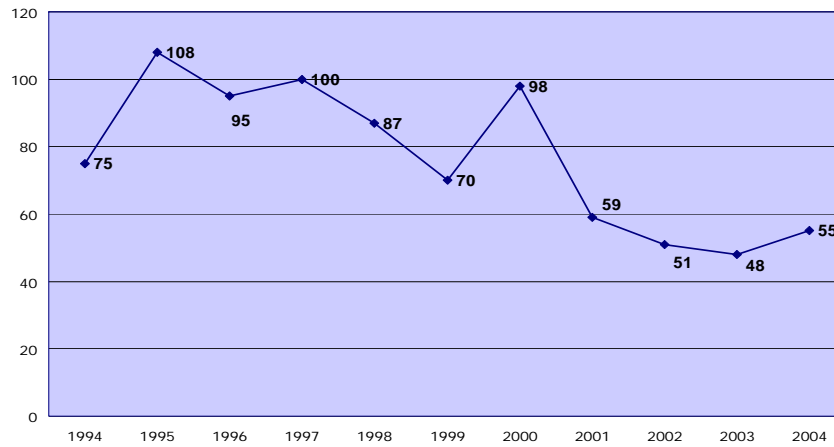
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## Job Interviews



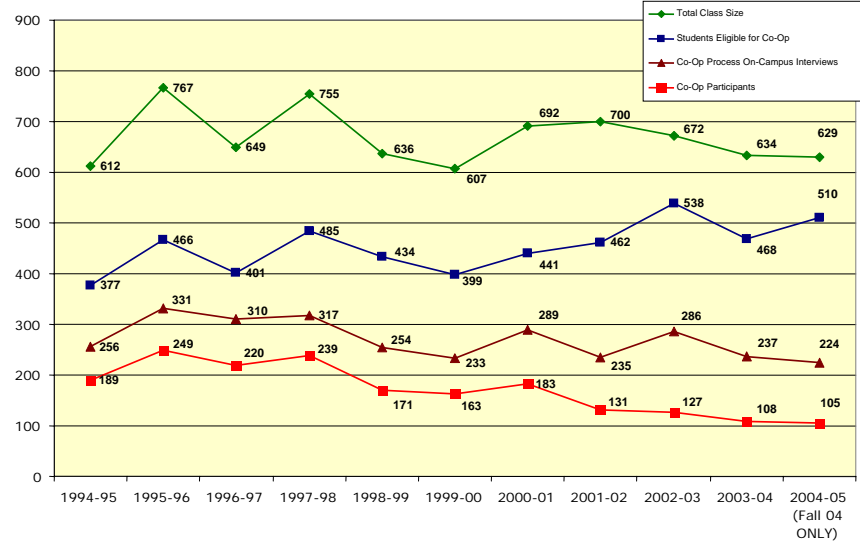
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## Number of Employers Who Hired Co-Op Students



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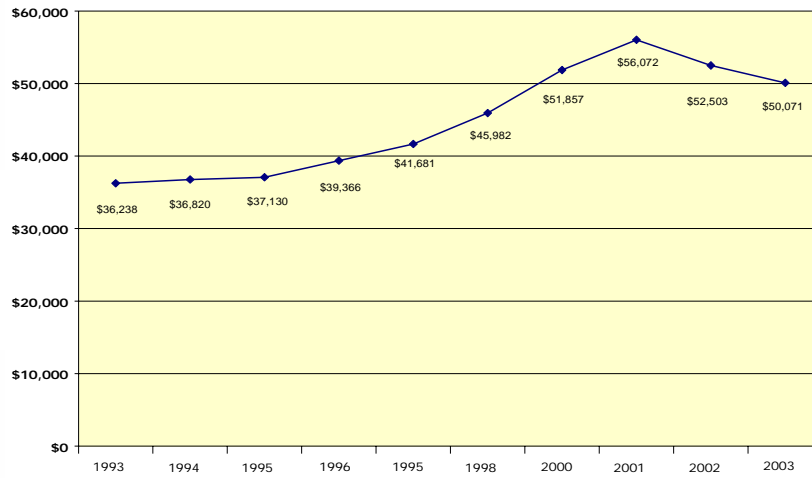
## Co-Op Student Participants



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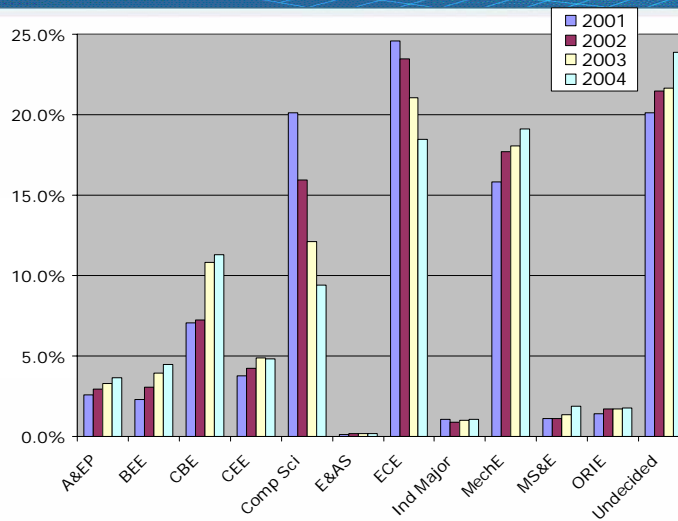


## Average Undergraduate Salaries



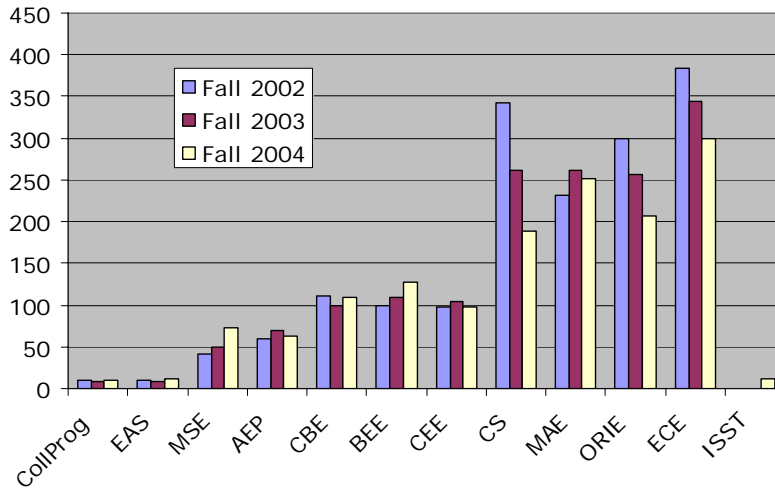
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## Fall Freshman Engineering Applications by Interest



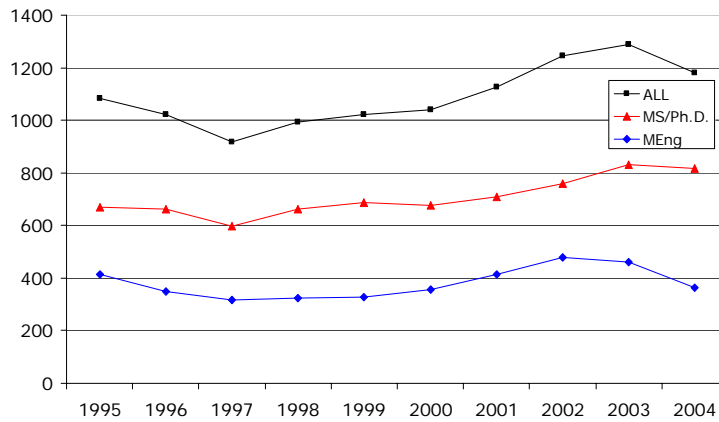
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## Affiliated Students



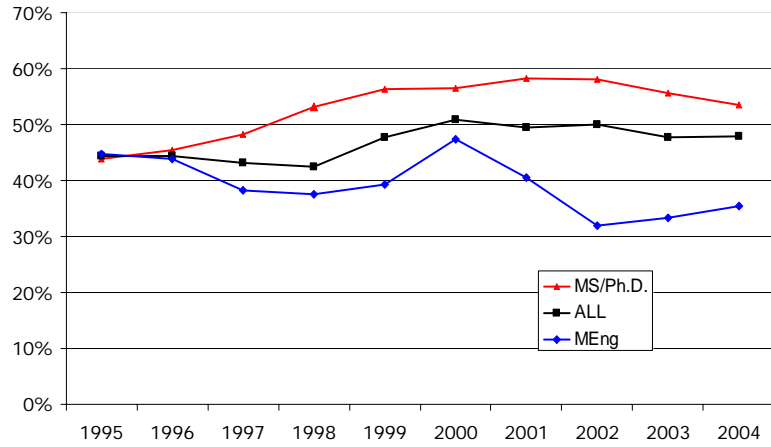
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## Graduate Student Enrollment



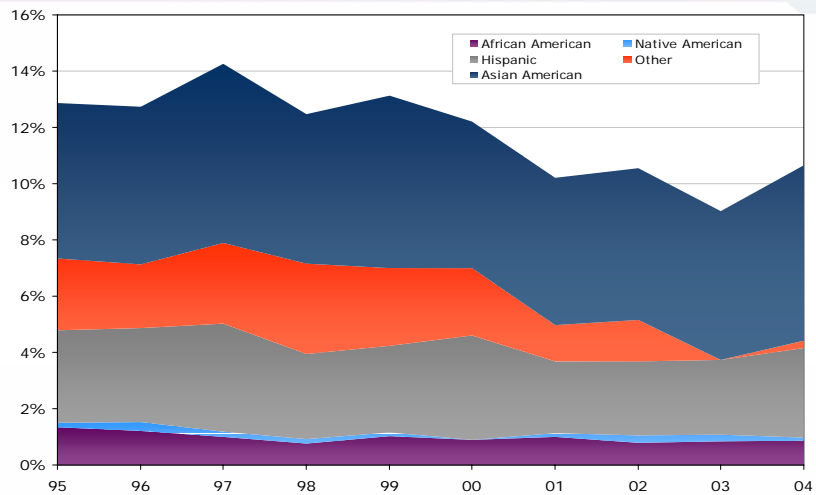
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## Graduate Student Enrollment International



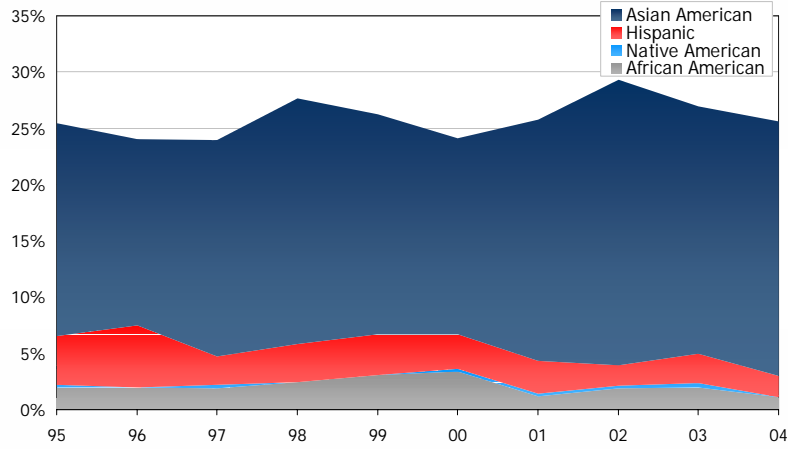
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## Graduate Student Enrollment Ethnicity in MS/Ph.D.



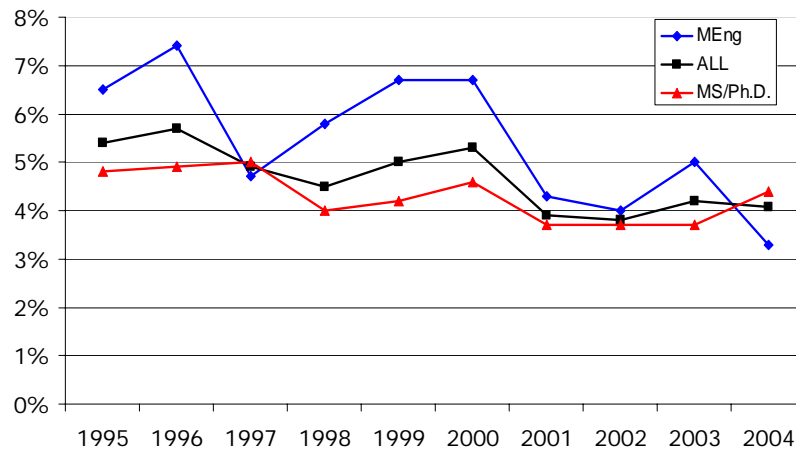
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## Graduate Student Enrollment Ethnicity in MEng Program



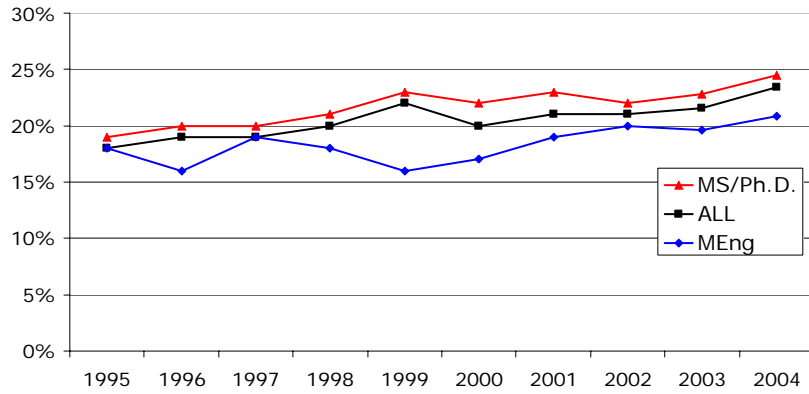
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## Graduate Student Enrollment Underrepresented Minorities



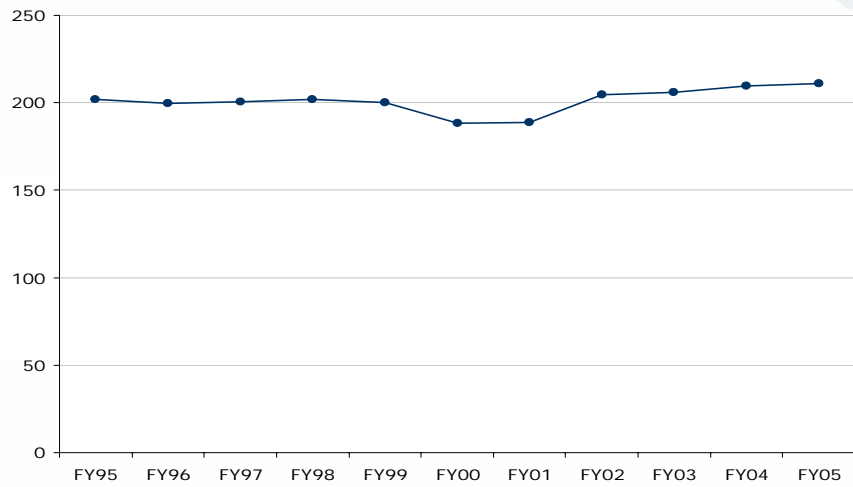
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## Graduate Student Enrollment Women



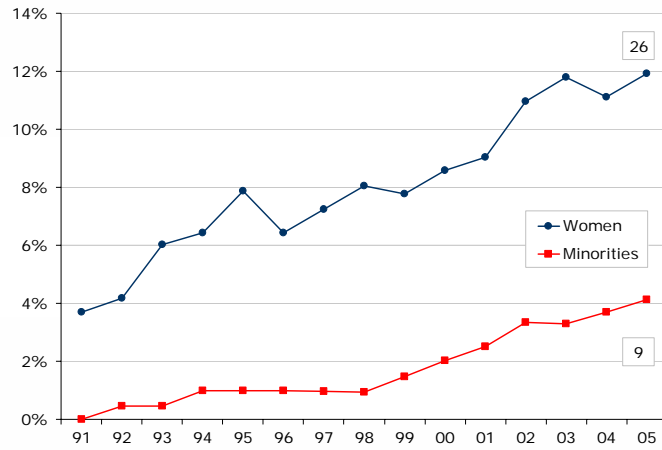
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## Faculty FTE



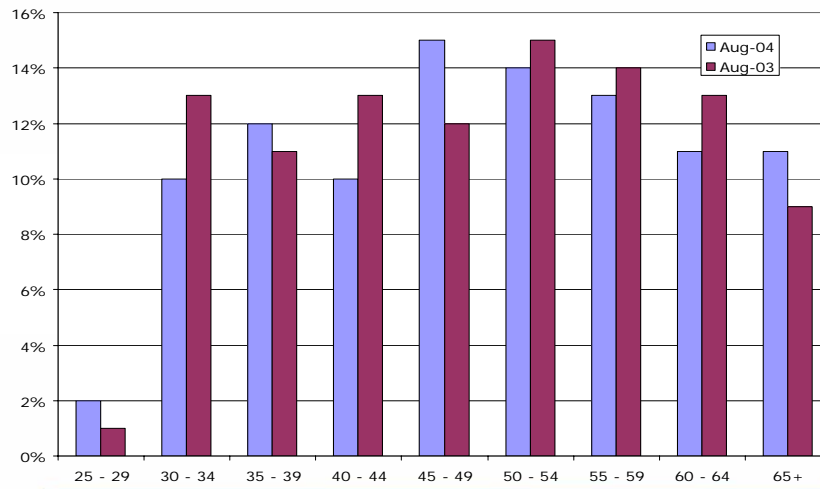
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## Faculty Diversity



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## Faculty Age Distribution



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## Underrepresented Minority Faculty Hires and Departures

Fiscal Year	Name Faculty Hired	Department	Title
2000-2001	Lynden Archer	CBE	Associate Professor
2000-2001	Ephrahim Garcia	MAE	Associate Professor
2001-2002	Lance Collins	MAE	Professor
2003-2004	Wilkins Aquino	CEE	Assistant Professor
2003-2004	Chekesha Liddell*	MSE	Assistant Professor

\* Minority woman

Fiscal Year	Name Faculty Departed	Department	Title
2002-2003	Alfred Phillips	ECE	Associate Professor
2003-2004	None		

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## Women Faculty Hires

Fiscal Year	Name Faculty Hired	Department	Title
2000-2001	Rachel Davidson	CEE	Assistant Professor
2000-2001	Lois Pollack	AEP	Assistant Professor
2001-2002	Michal Lipson	ECE	Assistant Professor
2001-2002	Ruth Richardson	CEE	Assistant Professor
2001-2002	Anna Scaglione	ECE	Assistant Professor
2002-2003	Alyssa Apsel	ECE	Assistant Professor
2002-2003	Kavita Bala	COMS	Assistant Professor
2002-2003	Sally McKee	ECE	Assistant Professor
2003-2004	Antje Berndt	ORIE	Assistant Professor
2003-2004	Xin Guo	ORIE	Assistant Professor
2003-2004	Chekesha Liddell*	MSE	Assistant Professor

\* Minority woman

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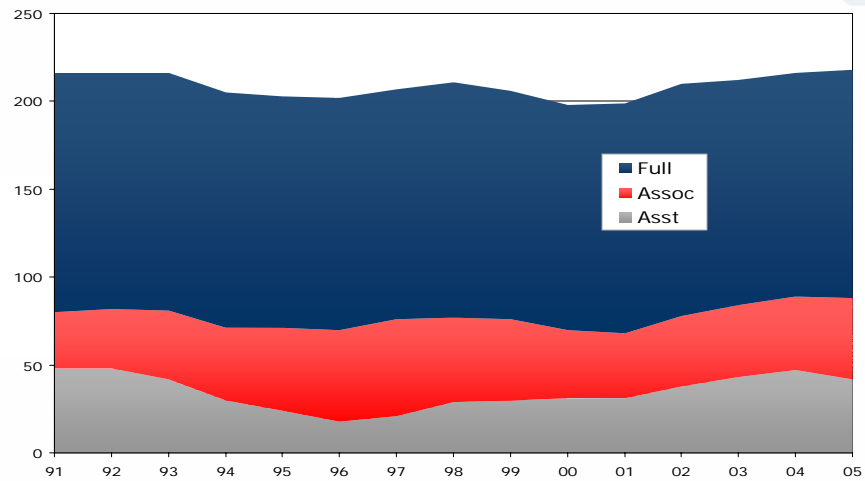
## Women Faculty Departures

Fiscal Year	Name Faculty Departed	Department	Title
2000-2001	Ronitt Rubinfeld	COMS	Associate Professor
2000-2001	Elizabeth Slate	ORIE	Associate Professor
2002-2003	Sarah Billington	CEE	Assistant Professor
2003-2004	Yuri Suzuki*	MSE	Associate Professor

\* On leave since July 2002.

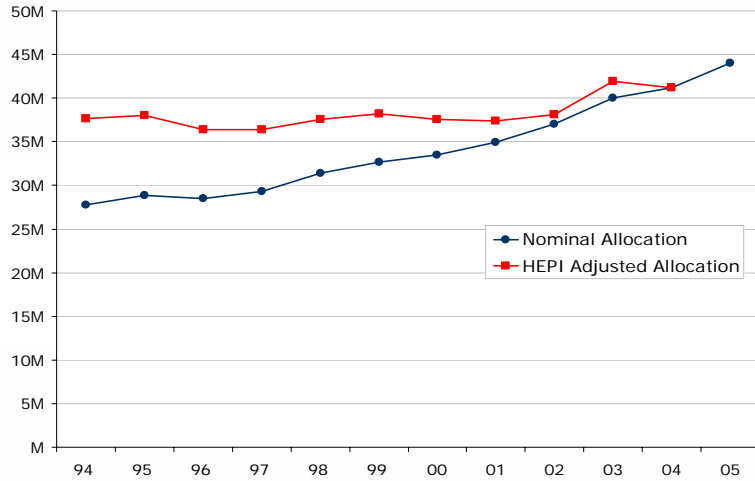
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## Faculty by Rank – Fall 2004



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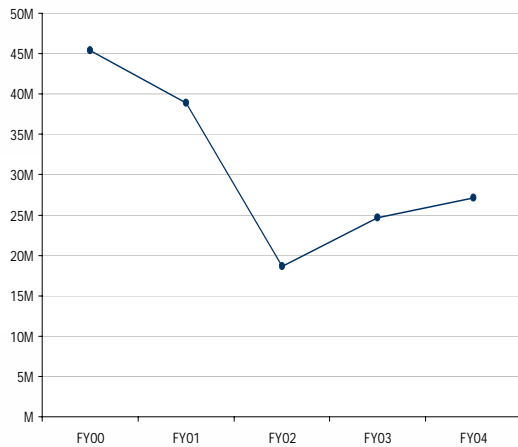
## Engineering Budget - University Allocation



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## DEVELOPMENT

### New Gifts and Commitments



#### 1997-01

Duffield Hall campaign begun  
(David Duffield gives \$20M)

#### 2001

University scholarship  
campaign

#### 2003

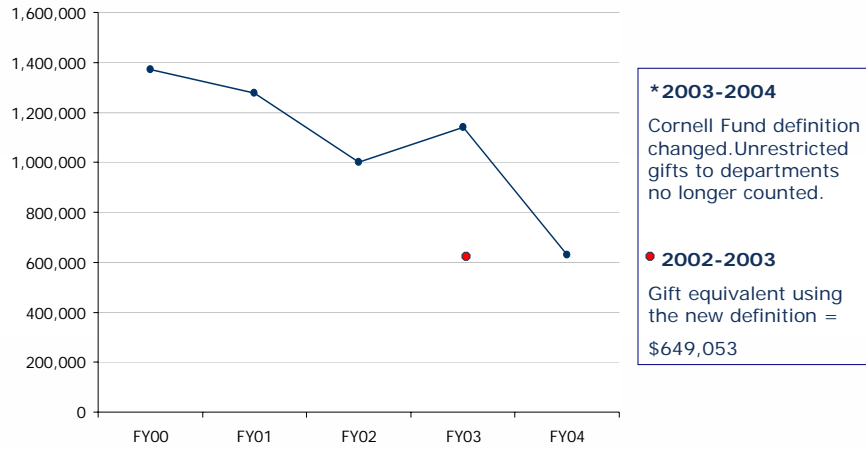
Duffield Hall endowment  
(Dave Duffield gives \$10M)

#### 2004

Duffield Hall challenge  
endowment - \$5M given

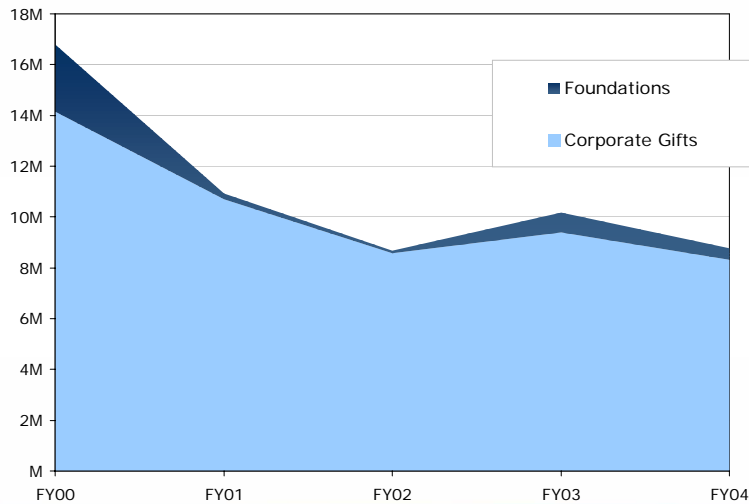
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## Unrestricted Gifts-Cornell Fund



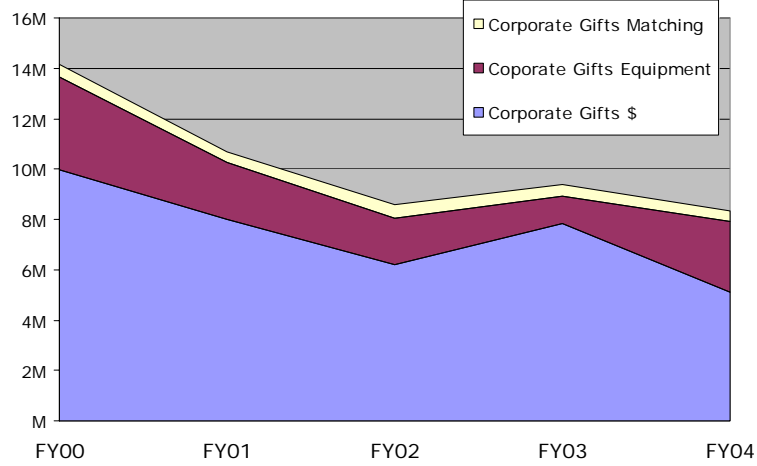
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## Corporate and Foundation Donations



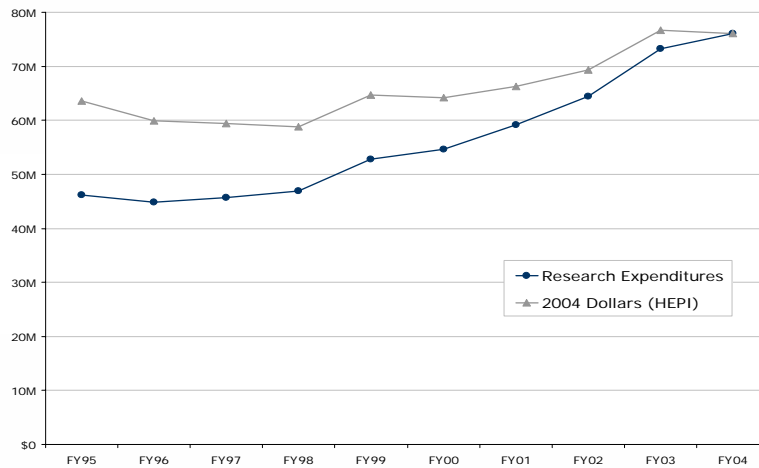
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## Corporate Gifts



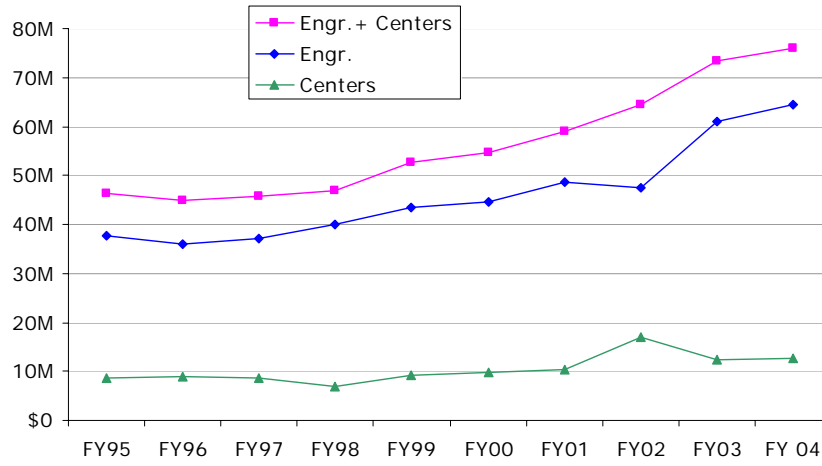
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## HEPI Adjusted Research Expenditures for Engineering



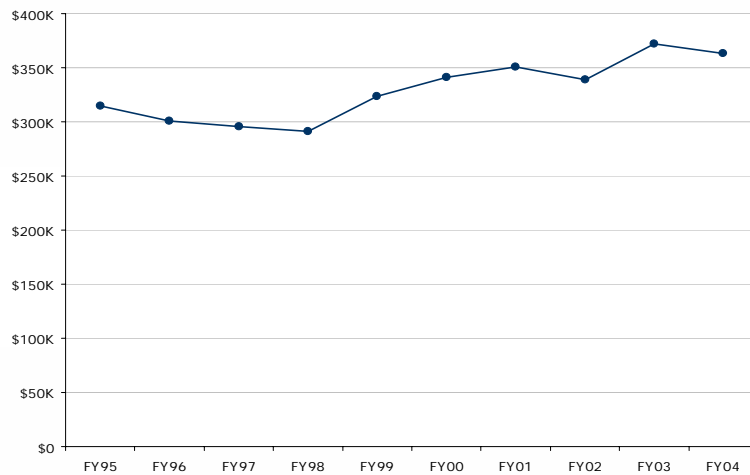
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## Research Expenditures



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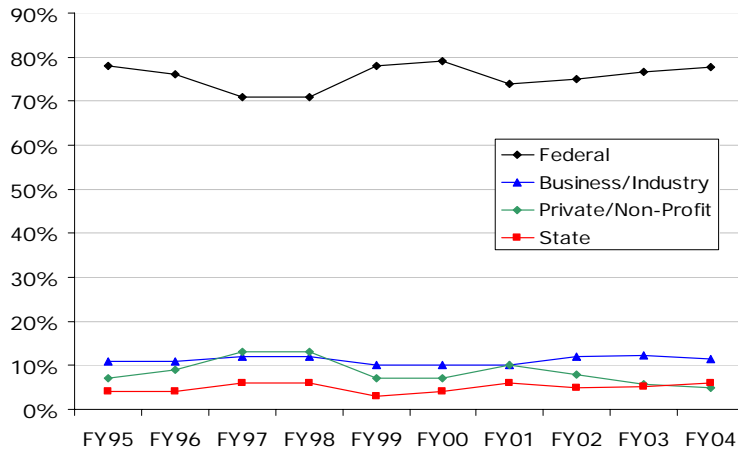
## HEPI Adjusted Research Expenditures per FTE (2004 Dollars)



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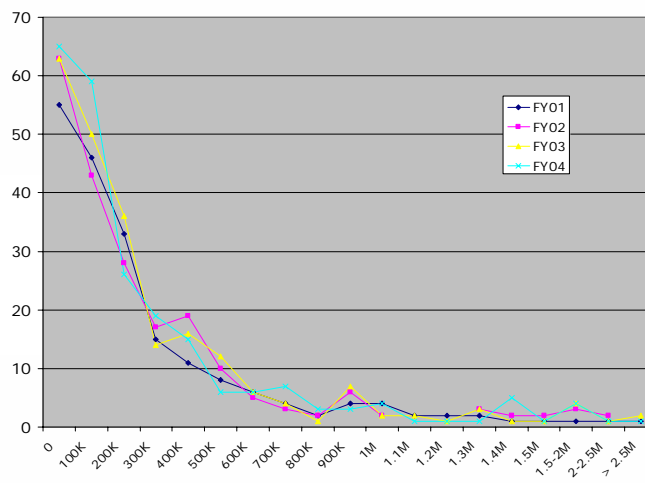


## Percent Distribution of Research Expenditures



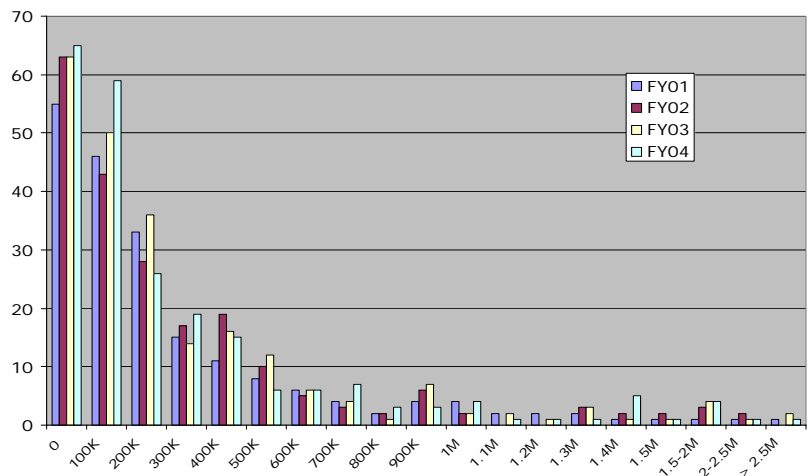
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## Distribution of Faculty by Research Expenditures (\$k)



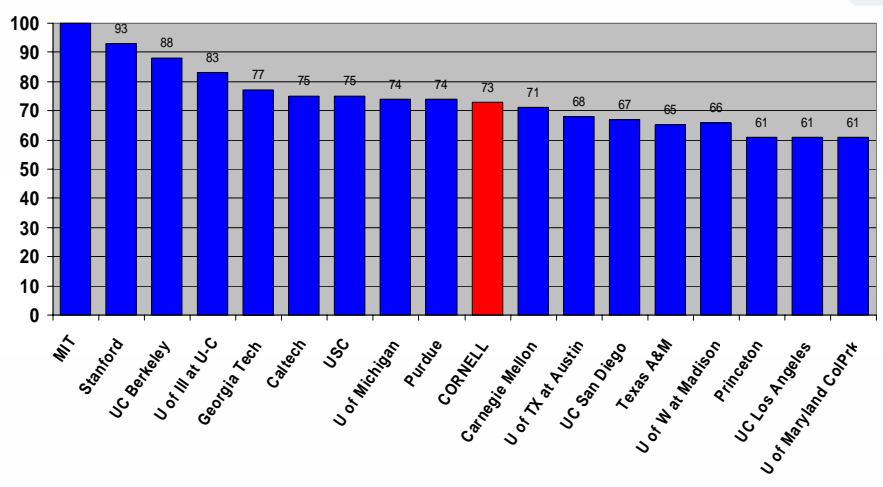
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## Distribution of Faculty by Research Expenditures(\$k)



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## US News Rankings of Graduate Engineering Schools Spring 2004



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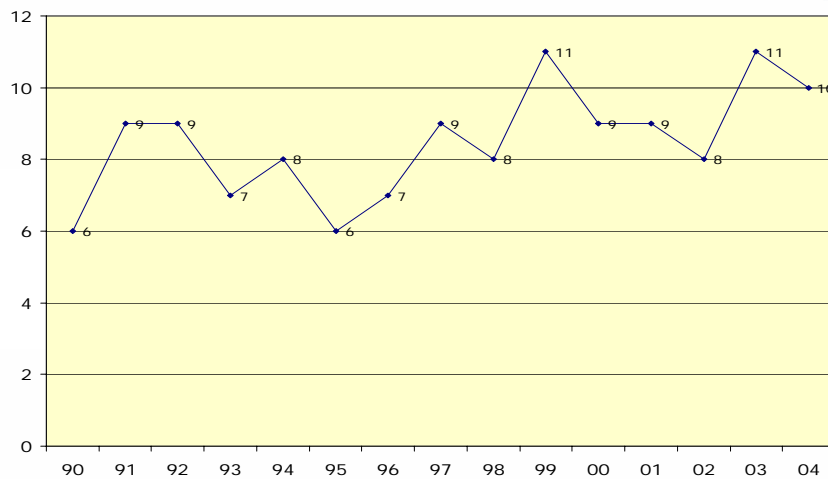
## US NEWS TOP ENGINEERING GRADUATE SCHOOL RANKING DATA - SPRING 2004

School	Score	Peer	Recruiter	GRE		Rate	PhD Stdnts Per Faculty	Members Nat. Acad.	Research Expenditures		PhD's Granted
				Quant	Analytical	Acceptance			Total	Per Faculty	
MIT	100	4.9	4.8	777	735	24.0%	4.1	13.3%	\$ 241.0	\$ 684.7	205
Stanford	93	4.9	4.5	778	730	30.8%	5.0	14.8%	\$ 120.1	\$ 727.7	229
UC Berkeley	88	4.8	4.4	776	734	14.7%	5.8	19.5%	\$ 121.1	\$ 571.0	174
U of Ill at U-C	83	4.6	4.3	769	735	12.9%	4.4	3.9%	\$ 213.7	\$ 590.4	186
Georgia Tech	77	4.5	4.2	751	697	23.7%	4.1	4.6%	\$ 187.0	\$ 392.1	179
Caltech	75	4.8	4.6	791	754	9.7%	4.8	13.5%	\$ 48.2	\$ 502.1	57
USC	75	3.5	3.4	762	674	40.5%	5.2	13.1%	\$ 134.2	\$ 1,091.4	109
U of Michigan	74	4.2	4.0	752	700	22.5%	3.9	3.8%	\$ 178.9	\$ 745.3	145
Purdue	74	4.6	4.2	768	713	30.0%	3.8	4.1%	\$ 140.3	\$ 482.0	153
<b>CORNELL</b>	<b>73</b>	<b>4.3</b>	<b>4.1</b>	<b>774</b>	<b>732</b>	<b>24.8%</b>	<b>3.9</b>	<b>9.2%</b>	<b>\$ 105.8</b>	<b>\$ 777.7</b>	<b>98</b>
Carnegie Mellon	71	4.4	4.1	785	734	18.9%	3.6	7.7%	\$ 109.0	\$ 536.8	101
U of TX at Austin	68	4.1	4.0	763	704	19.0%	3.7	9.3%	\$ 112.8	\$ 468.0	145
UC San Diego	67	3.6	3.7	769	706	16.7%	4.2	9.8%	\$ 118.3	\$ 788.4	64
Texas A&M	65	3.6	3.4	751	675	31.0%	3.0	3.4%	\$ 166.5	\$ 824.2	125
U of W at Madison	65	4.1	3.9	775	743	23.4%	3.0	4.6%	\$ 114.9	\$ 499.7	106
Princeton	61	4.0	4.1	786	748	14.2%	3.8	12.6%	\$ 56.2	\$ 442.9	51
UC Los Angeles	61	3.7	3.7	763	698	31.9%	5.5	9.4%	\$ 76.6	\$ 559.2	85
U of Maryland ColPrk	61	3.6	3.6	762	712	13.4%	4.3	3.9%	\$ 121.9	\$ 631.5	102

Millions      Thousands

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## Cornell Engineering Graduate Rank in U.S. News



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## US News Graduate School of Engineering Rankings 2004

### Peer Ranking

1. Massachusetts Institute of Technology
2. Stanford University (CA)
3. University of California–Berkeley
6. California Institute of Technology
4. University of Illinois-Urbana Champaign
8. University of Michigan-Ann Arbor
5. Georgia Institute of Technology
11. Carnegie Mellon University (PA)
- 10. Cornell University (NY)**
8. Purdue University-West Lafayette (IN)

### Recruiter Ranking

1. Massachusetts Institute of Technology
6. California Institute of Technology
2. Stanford University (CA)
3. University of California–Berkeley
4. University of Illinois-Urbana Champaign
5. Georgia Institute of Technology
8. University of Michigan-Ann Arbor
- 10. Cornell University (NY)**
11. Carnegie Mellon University (PA)
16. Princeton University (NJ)

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## US News Graduate Rankings 2004

### Research \$s Per Faculty Ranking

6. University of Southern California
14. Texas A&M University-College Station
13. University of California-San Diego
- 10. Cornell University (NY)**
40. University of Rochester (NY)
8. Purdue University-W. Lafayette (IN)
2. Stanford University (CA)
19. Harvard University (MA)
1. Massachusetts Institute of Technology
24. Columbia University (NY)
42. Dartmouth College (NH)
16. University of Maryland-College Park
30. Duke University (NC)
26. University of Pennsylvania
4. University of Illinois-Urbana Champaign
3. University of California-Berkeley

### Total Expenditure Rankings

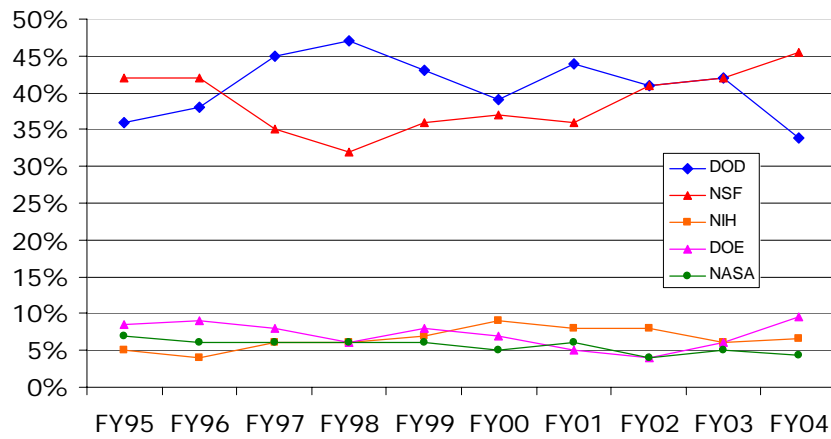
1. Massachusetts Institute of Technology
4. Univ. Of Illinois-Urbana Champaign
5. Georgia Institute of Technology
8. Purdue University-W. Lafayette (IN)
14. Texas A&M University-College Station
8. University of Michigan-Ann Arbor
6. University of Southern California
16. University of Maryland-College Park
3. University of California-Berkeley
2. Stanford University (CA)
13. University of California-San Diego
14. University of Wisconsin-Madison
12. University of Texas-Austin
21. Penn State University-University Park
11. Carnegie Mellon University (PA)
- 10. Cornell University (NY)**

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# Discussion

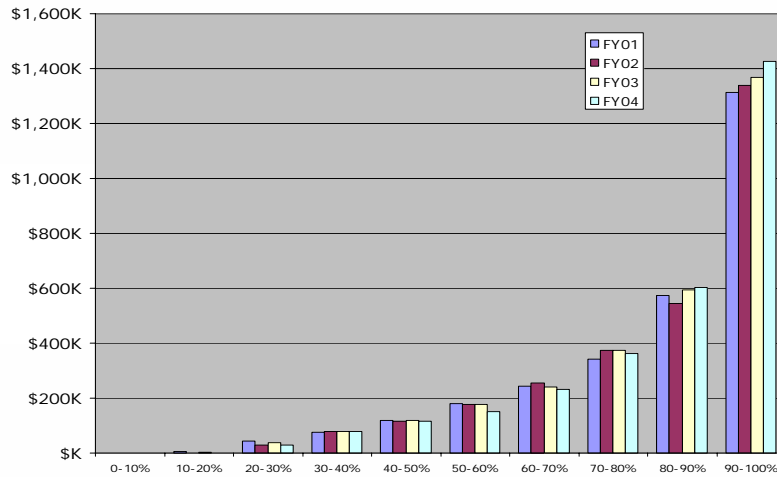
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## Research Expenditures – Distribution of Federal Funding



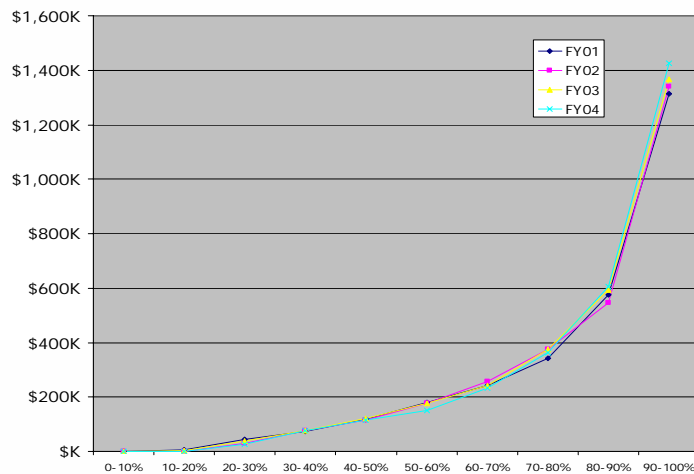
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## Average Faculty Research Expenditures by Decile (\$K)



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## Average Faculty Research Expenditures by Decile (\$K)



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