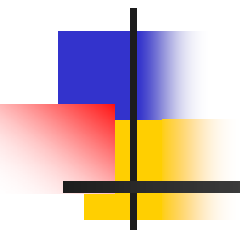


Highlights of Membership and Process/Outcome Data

FY 2005-2006

*Denis Gray, Lindsey McGowen, &
Drew Rivers*
North Carolina State University



MEMBERSHIP REPORT DATA



Center Director Membership Summary

	Count	Percent
Total memberships	<i>661</i>	<i>100%</i>
Industry: large firms (500 + employees)	385	58%
Industry: small firms (< 500 employees)	128	19%
US Government: Federal	74	11%
US Government: State or local	21	3%
Other ¹	53	8%
Number of organizations with memberships	<i>478</i>	--

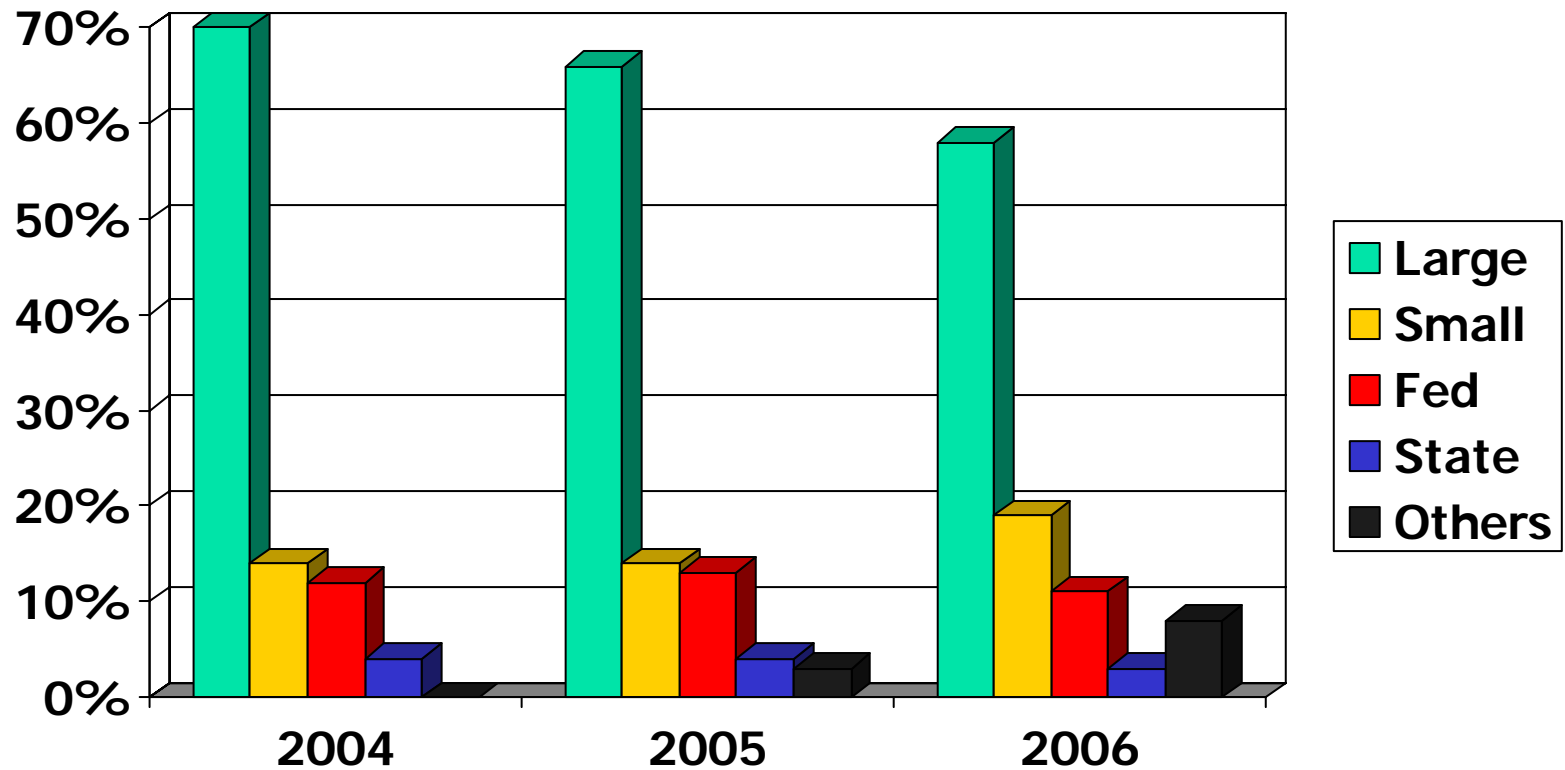
[1] Categories comprising other include: non-profit, non-US government, unknown industry firm size, and other organization



Interpreting Membership Changes Over Time

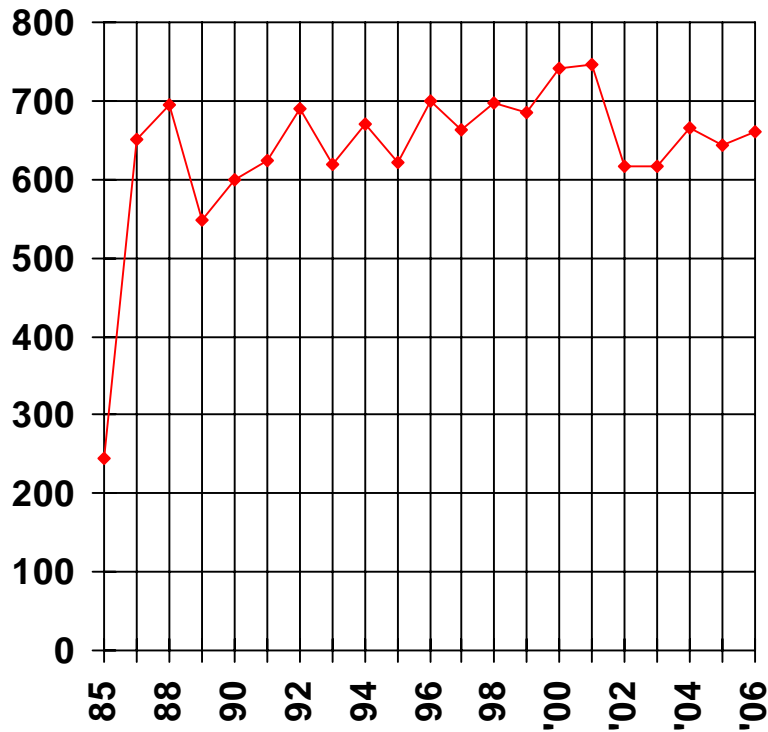
- Changes in membership numbers over time are influenced by changes at different levels:
 - Centers: mature centers will graduate (and members will be dropped) and new centers will be created (and members added).
 - Sites: Generally speaking, new sites are added to existing centers.
 - Members: Individual members will leave a center and new members will be added.
- Changes in program total and average can be due to any combination of these factors.
 - Totals are particularly unstable
 - Ex: In 2006-2007 8 centers will graduate

Member Composition 2002-2006

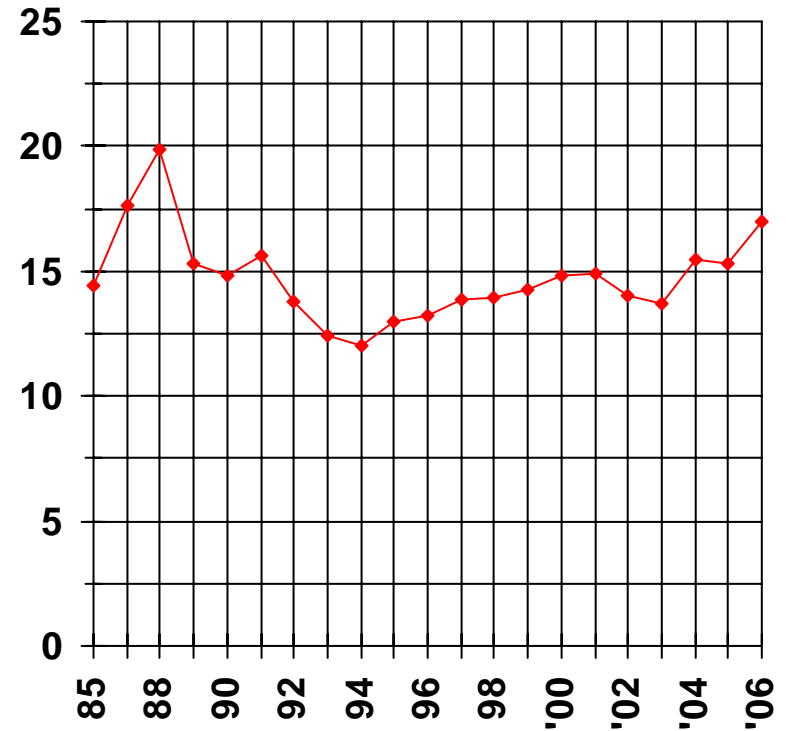


INDUSTRIAL MEMBERSHIPS BY YEAR

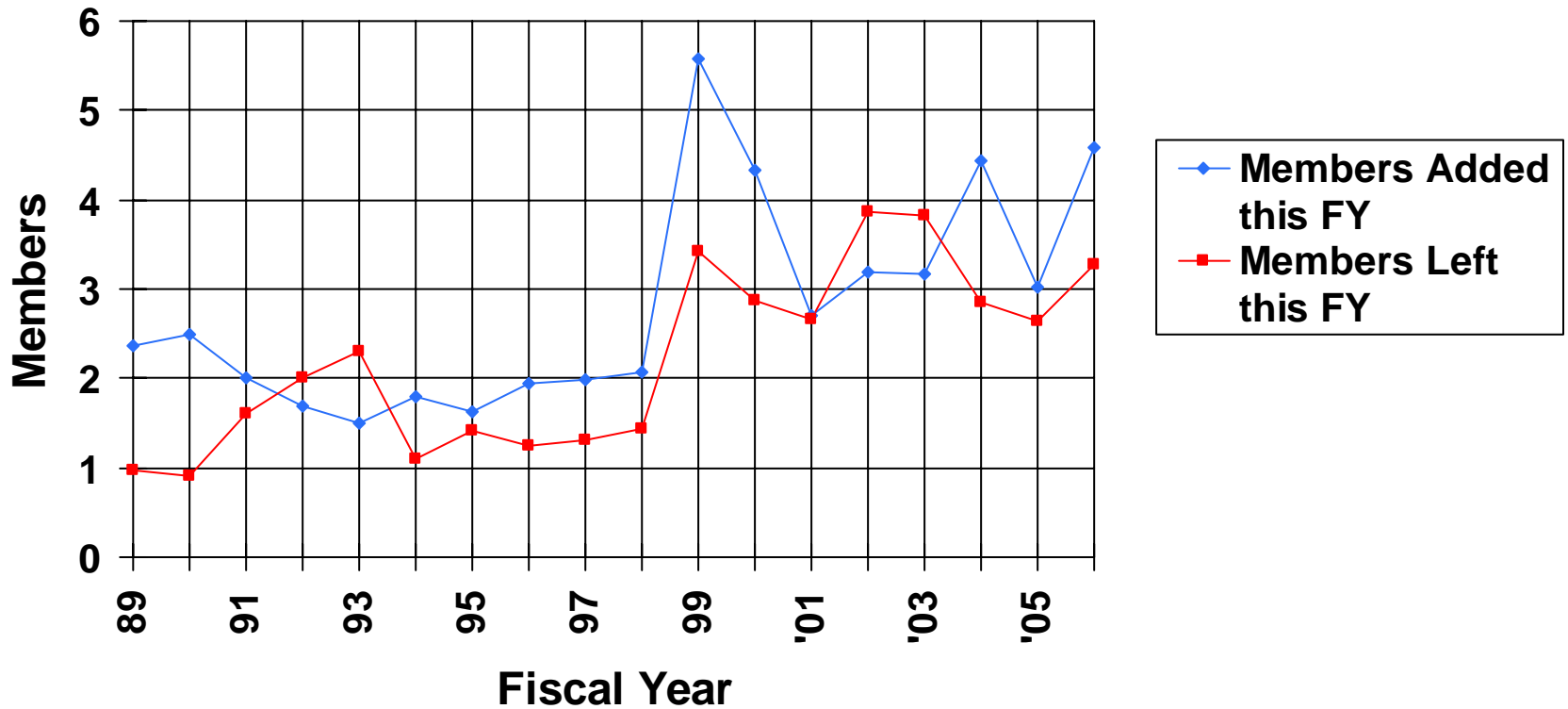
TOTAL NUMBER OF MEMBERS



AVERAGE NUMBER OF MEMBERS PER CENTER



AVERAGE MEMBERSHIP TURNOVER





Membership: Organizations with the Most Memberships

Number of Memberships	Organizations
16	U.S. Army
15	Dept of Energy/ Nat'l Labs
11	Boeing
9	Intel Corporation
8	General Motors , U.S. Air Force
7	Lockheed Martin, U.S. Navy
6	GE , Siemens
5	Raytheon, Samsung, Toyota, Honeywell, NASA

US Fed Government Members

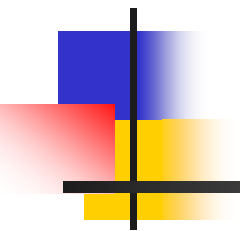
74 memberships, 22 organizations

- Air Force Research Lab ML
- Army
- DHS - Transportation Security Administration
- Dept of Defense
- Dept of Energy/ Nat'l labs
- FAA
- FBI
- Forest Products Lab
- Knolls Atomic Power Lab
- Mine Safety and Health Administration
- NASA
- National Highway Traffic Safety Administration
- NIST
- NSA
- Navy
- Office of Homeland Security
- Office of Secretary of Defense
- U.S. General Services Administration
- USDA
- USSOCOM
- Veterans Administration
- Midwest Healthcare Network
- Western Area Power Administration



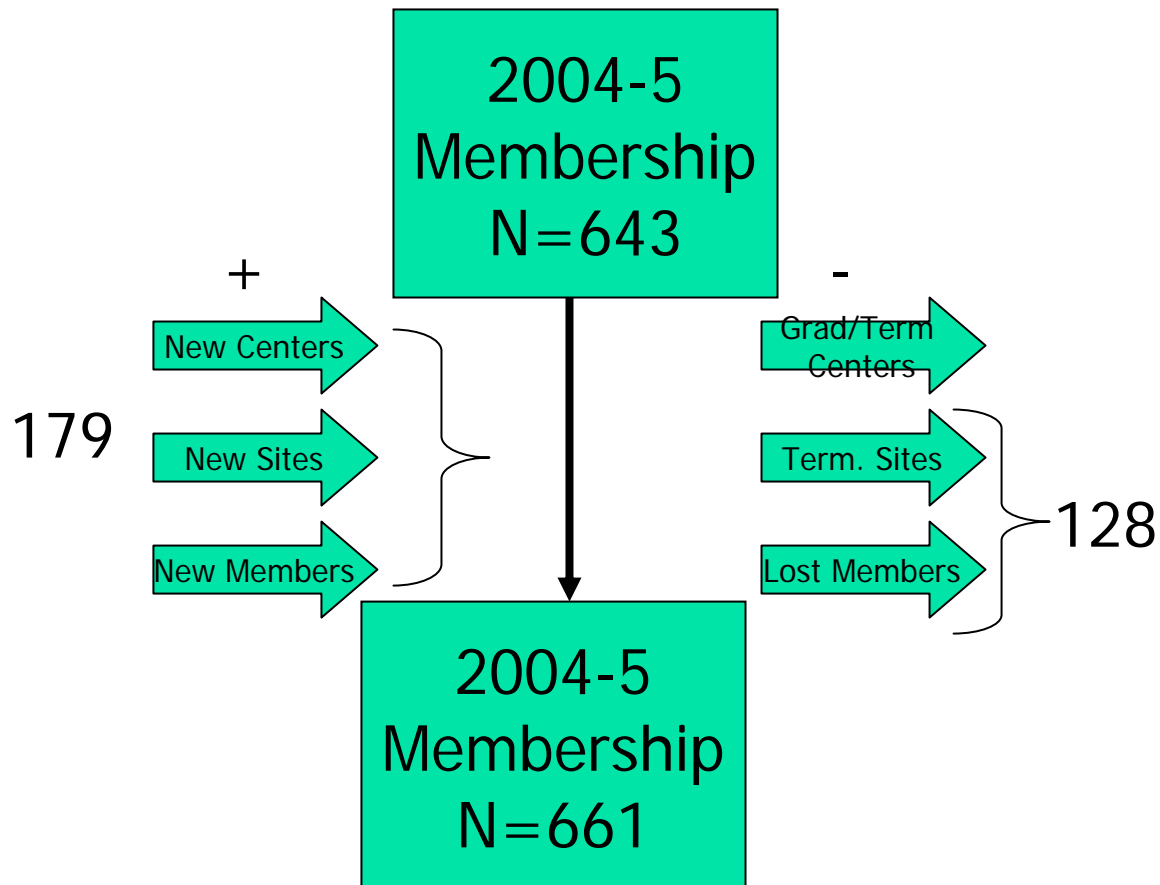
Single vs Multi-Site Members

	Single	Multiple
Count of Centers	14	25
Count of Sites	14	83 (~3.32 per center)
Members	174	487
<i>Avg per Center</i>	12.4	19.5
<i>Avg per Site</i>	--	5.9
Lost members 2006	24	104
<i>Avg per Center</i>	1.7	4.2
<i>Avg per Site</i>	--	1.3
Recruited members 2006	45	134
<i>Avg per Center</i>	3.2	5.4
<i>Avg per Site</i>	--	1.6



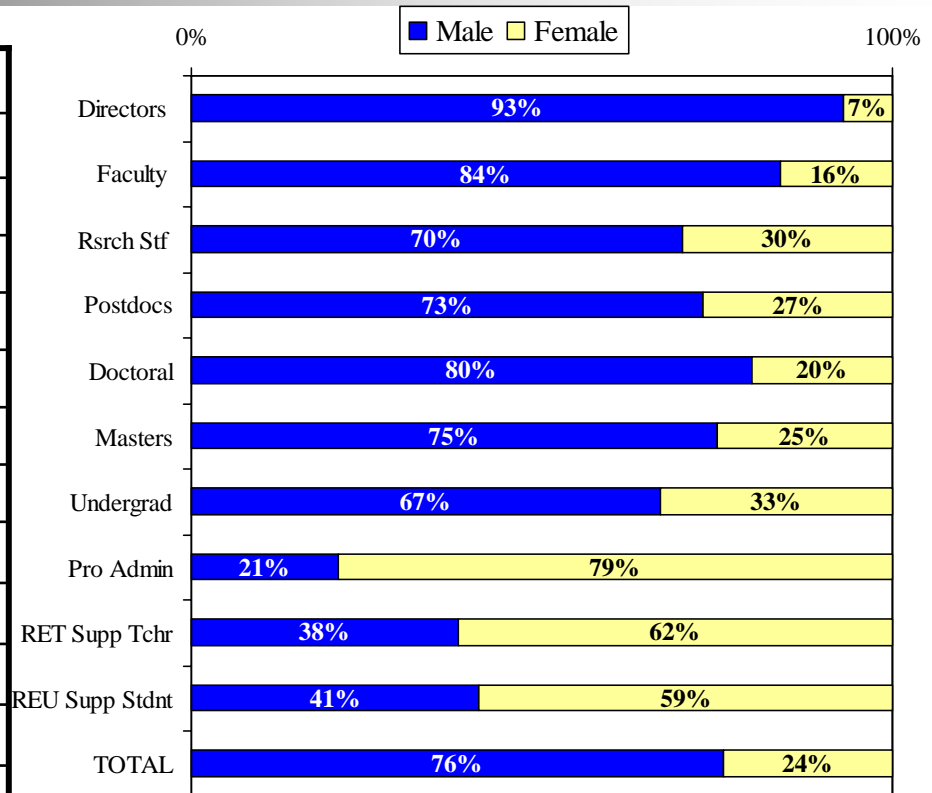
CENTER PERSONNEL DEMOGRAPHICS

Proposed Disaggregated Analysis



Gender Percentages

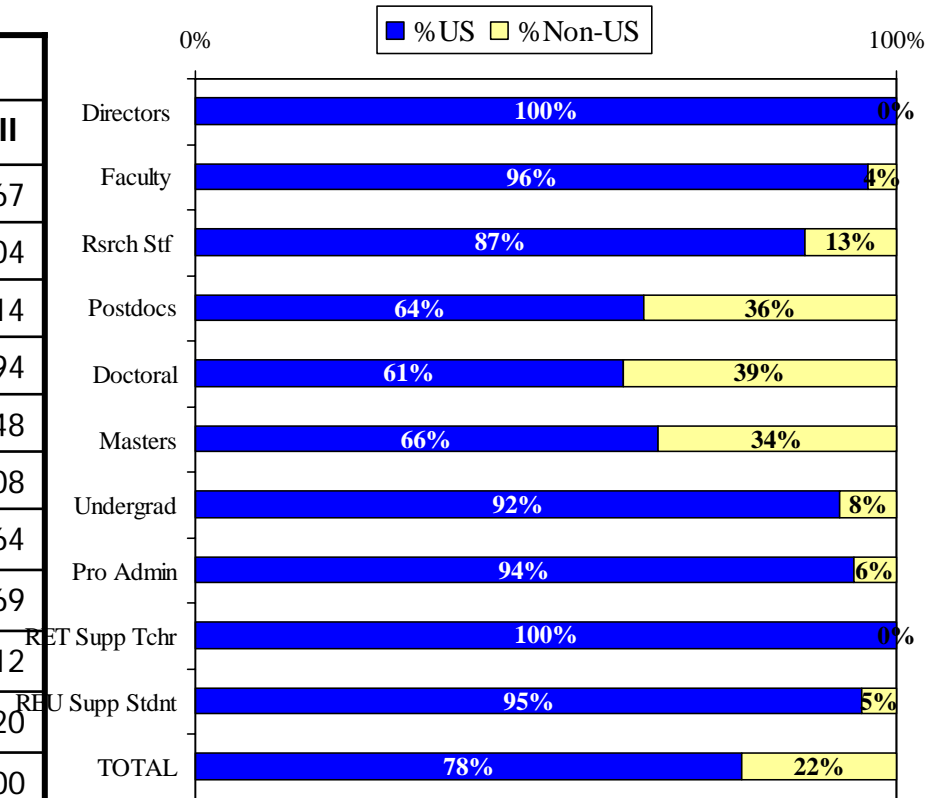
Counts of valid reports ¹ , by group	
Group	Total
Directors	76
Faculty	463
Research Staff	91
Post Docs	64
Doctoral Students	414
Masters Students	277
Undergraduate Students	160
Professional Administrative	67
RET Supplement Teachers	13
REU Supplement Students	22
<i>Total</i>	<i>1647</i>



¹ Three centers were excluded from the dataset due to failure to report gender on >50% of cases

US/Non-US Percentages

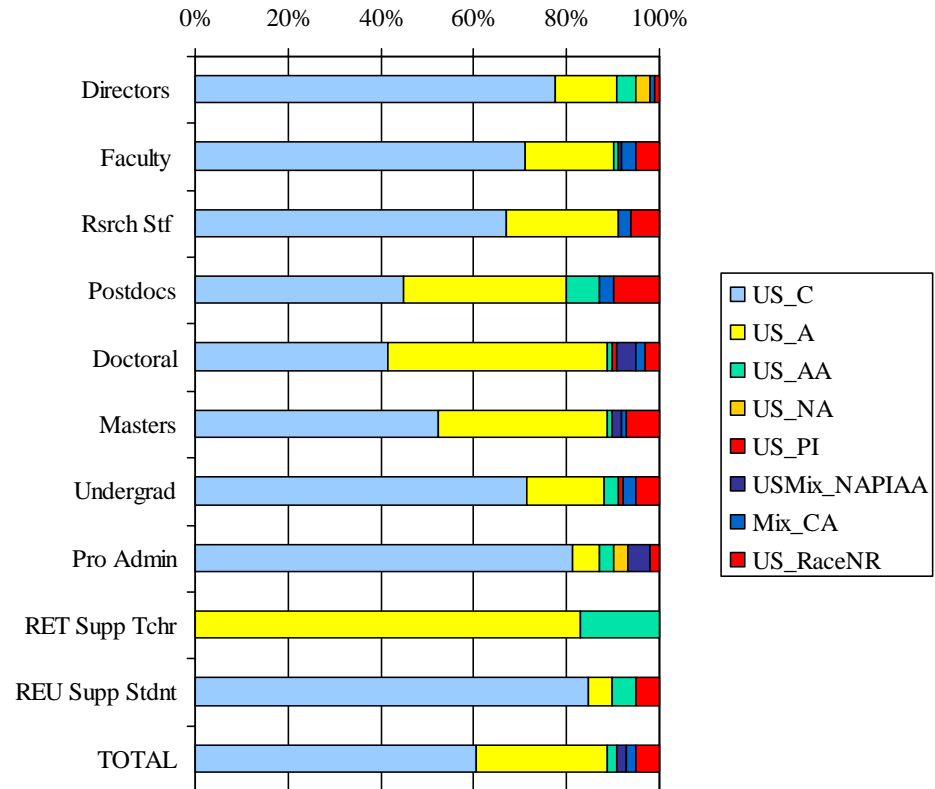
Counts of valid reports ² , by group	
Group	Total- All
Directors	67
Faculty	404
Research Staff	114
Post Docs	94
Doctoral Students	548
Masters Students	308
Undergraduate Students	164
Professional Administrative	69
RET Supplement Teachers	12
REU Supplement Students	20
Total	1800



² Total counts for US are based on sum of counts in Race categories applicable only to US citizens or permanent residents. Six centers were excluded from the dataset due to either a) failure to report race data on >50% of cases or b) total US counts exceeded reported total center personnel counts.

Race Percentages, US Citizen only

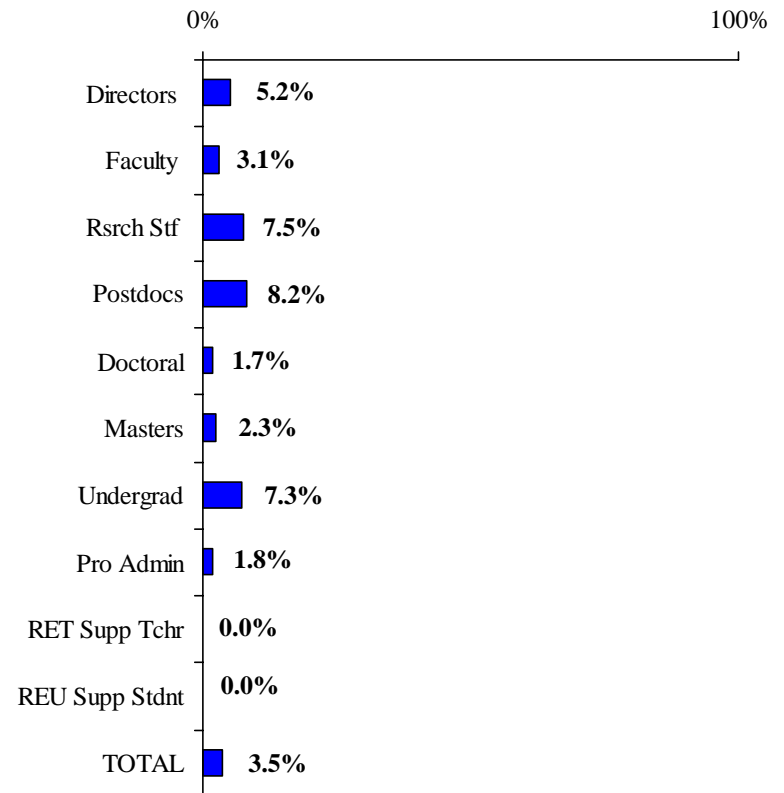
Counts of valid reports ² , by group	
Group	Total US
Directors	67
Faculty	388
Research Staff	99
Post Docs	60
Doctoral Students	335
Masters Students	203
Undergraduate Students	151
Professional	65
Administrative	
RET Supplement Teachers	12
REU Supplement Students	19
Total	1399



² Total counts for US are based on sum of counts in Race categories applicable only to US citizens or permanent residents. Six centers were excluded from the dataset due to either a) failure to report race data on >50% of cases or b) total US counts exceeded reported total center personnel counts.

US Hispanic Percentages

Counts of valid reports ³ , by group		
Group	Total US Count	% Hispanic
Directors	58	5.2%
Faculty	351	3.1%
Research Staff	80	7.5%
Post Docs	49	8.2%
Doctoral Students	293	1.7%
Masters Students	173	2.3%
Undergraduate Students	109	7.3%
Professional Administrative	56	1.8%
RET Supplement Teachers	12	0.0%
REU Supplement Students	19	0.0%
<i>Total</i>	1200	3.5%



³ Total counts for US are based on sum of counts in Race categories applicable only to US citizens or permanent residents. Ten centers were excluded from the dataset due to either a) failure to report race data on >50% of cases or b) total US counts exceeded reported total center personnel counts c) count of reported US Hispanic personnel >50% of reported total center personnel.



PROCESS – OUTCOME DATA

Process/Outcome

2005-2006 Response Rates

<i>Response frequencies</i>	Center level		Individual level	
	Industry	Faculty	Industry	Faculty
Population from CD report	39	39	661	561
Retired Centers	7	7	101	79
Retired/Defunct Centers Reporting	+2	+2	+29	+15
New Centers Reporting	+1	0	+2	0
Population	35	34	591	497
Centers Excused from Evaluation	1	3	25	56
Centers that did not return data	3	4	42	35
Available Population	31	27	524	406
Data Received	31	27	243	199
<i>Response Rates</i>				
Received / Population	88.6%	79.4%	41.1%	40.0%
Received / Available Population	100%	100%	46.4%	49.0%



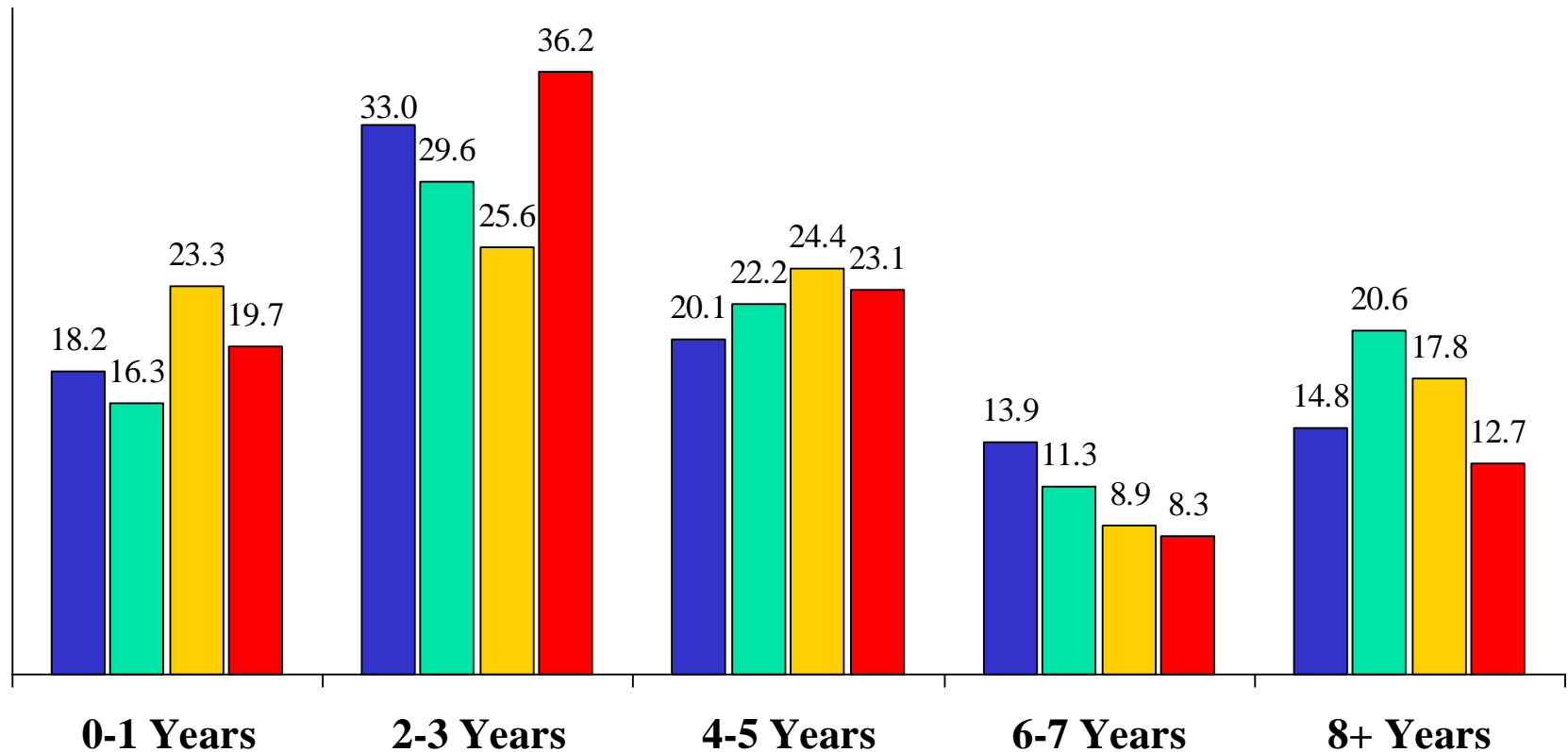
Industry Long and Short Forms

	Long Form	Short Form
# of items	46	29
# of questions in common	22	22
# of unique questions	24	7
# of centers using form	14	17
Sample size	109	134

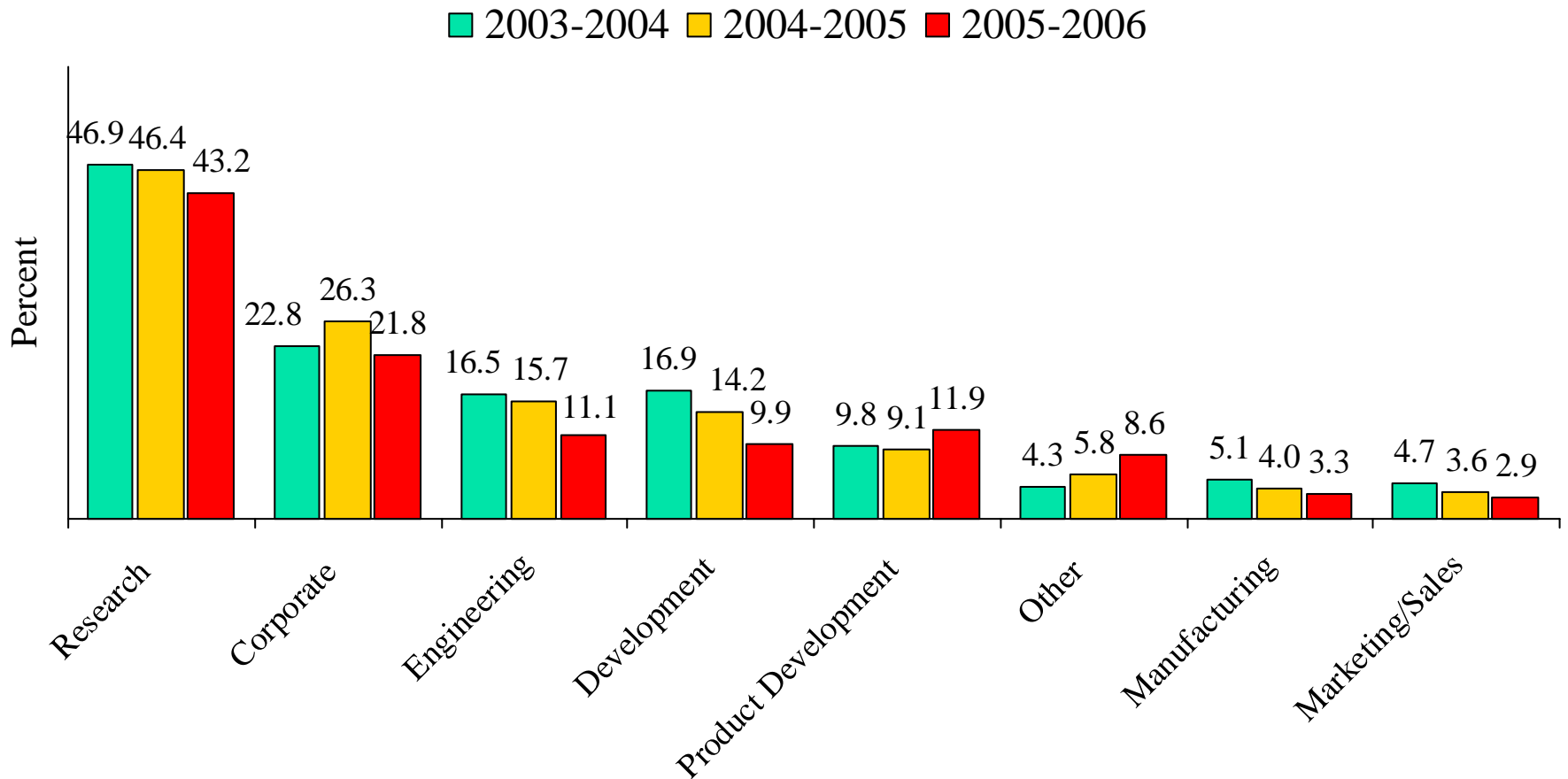
Years Organization has been a Center Member

Percent

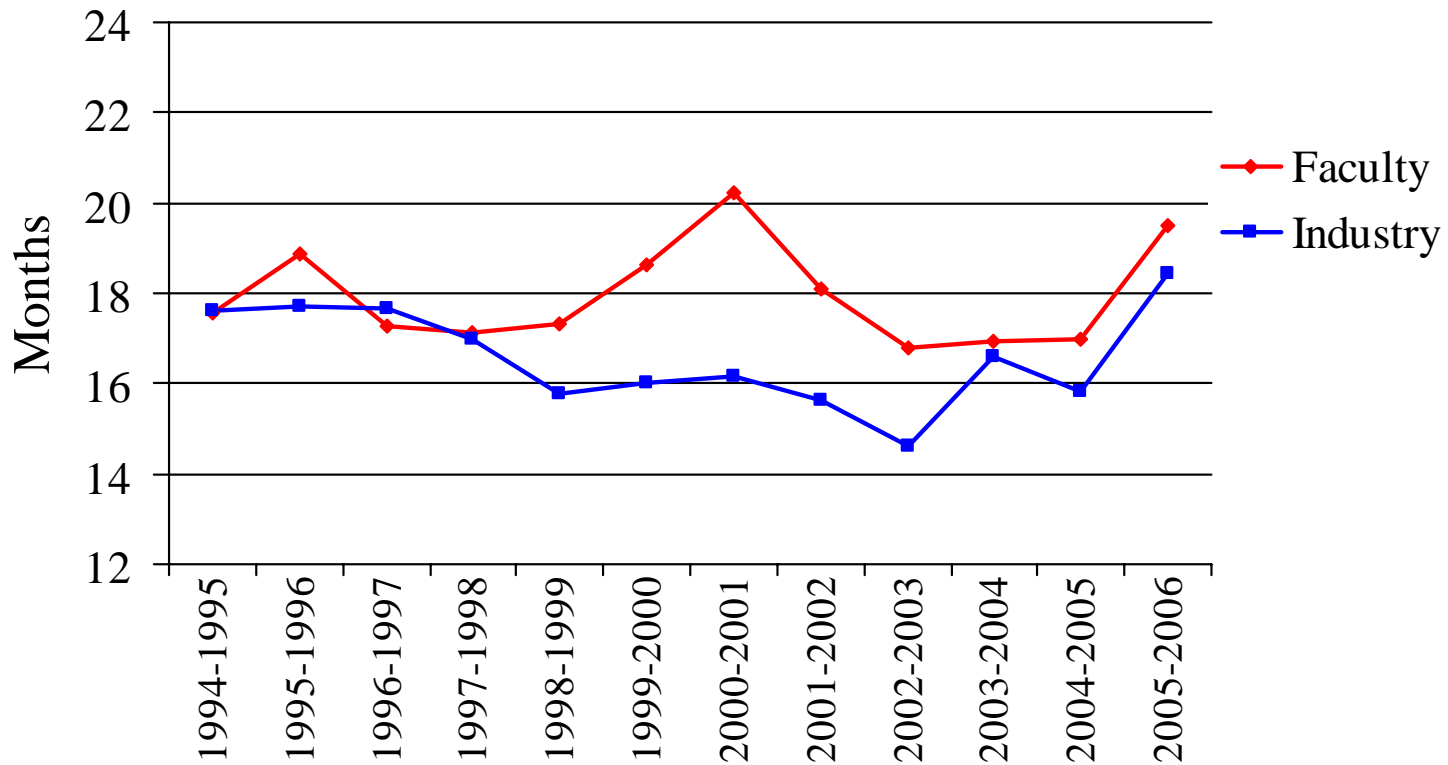
■ 2001-2002 ■ 2003-2004 ■ 2004-2005 ■ 2005-2006



Functional Group that Pays for Organization's Membership

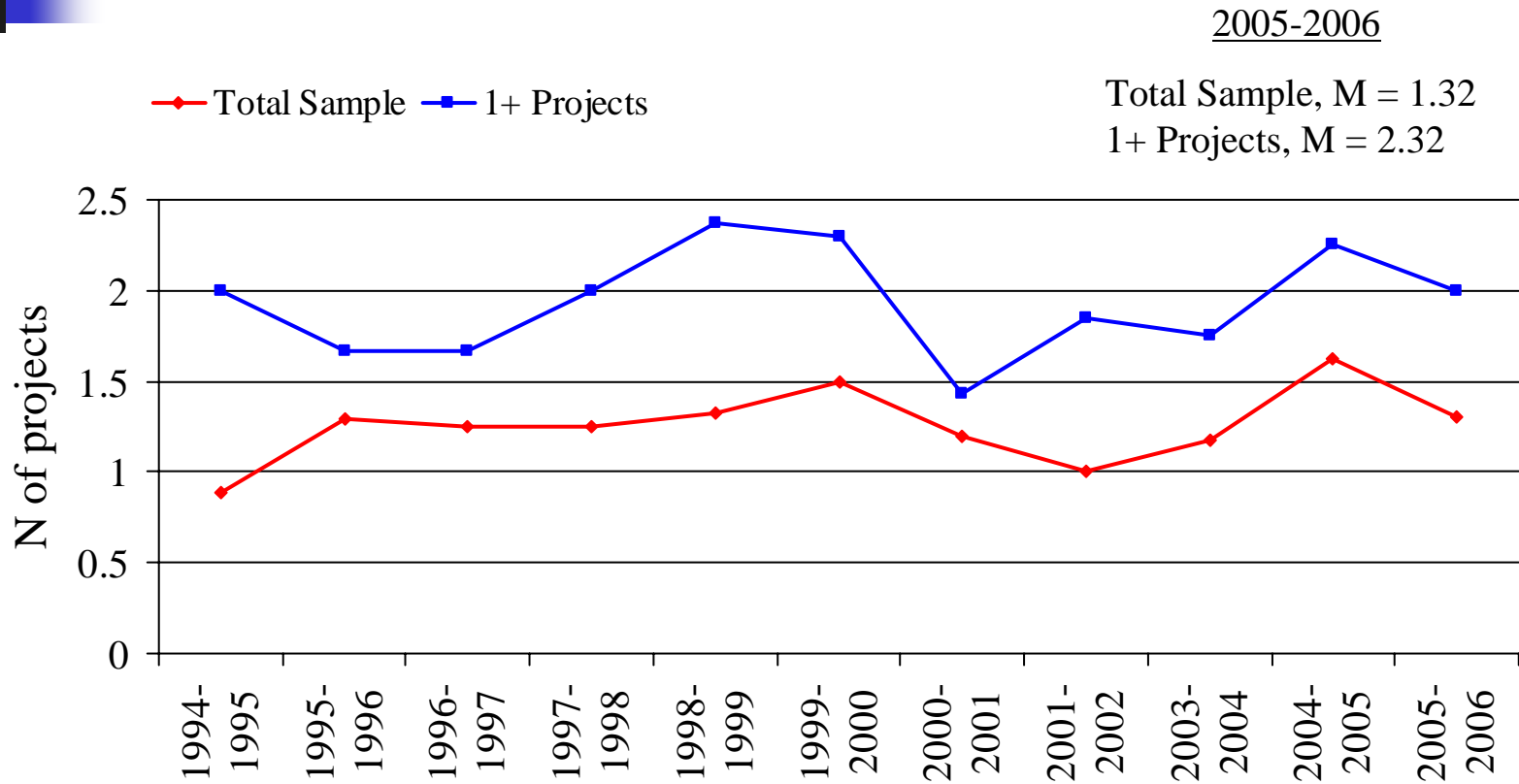


How long, on average do you feel that it should take for a new center research project to yield tangible results? (IAB Members vs. Faculty)



Note: 2002-2003 data based on subset of Centers

10 Year Trend – New Research Projects (reported median)



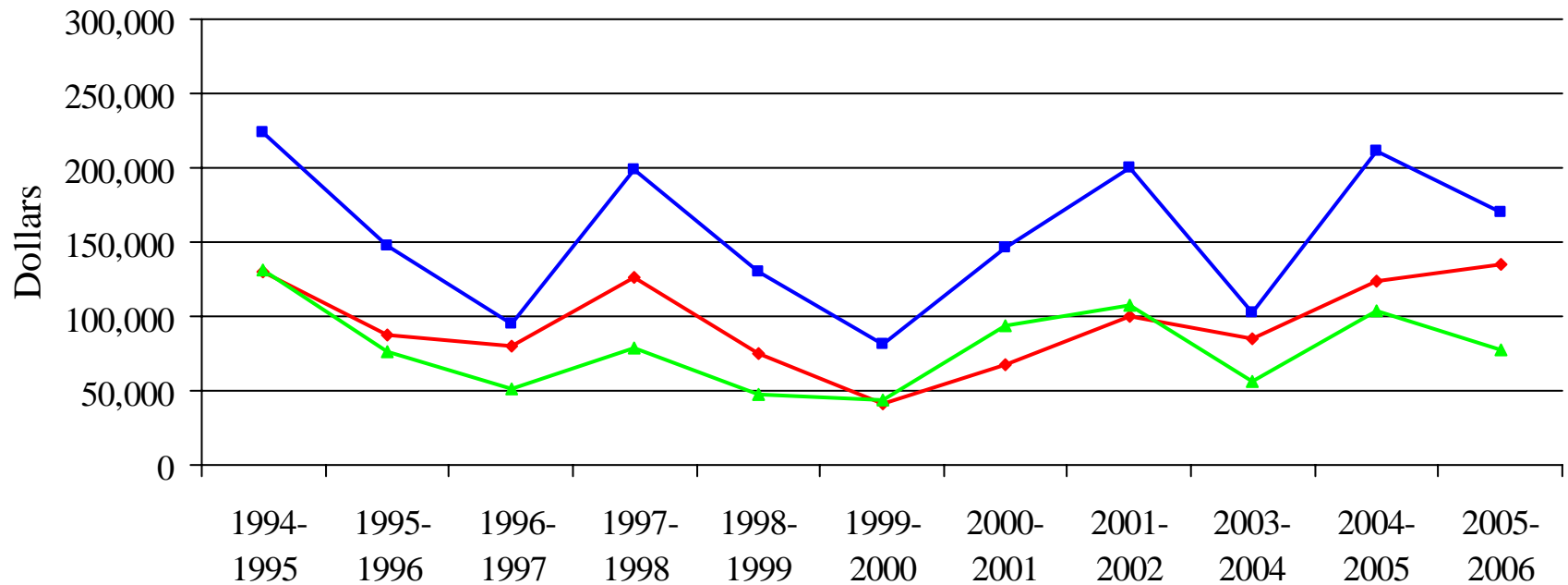
Note: 2002-2003 data not included

10 Year Trend - Total Dollar Value of Projects (reported median)

2005-2006

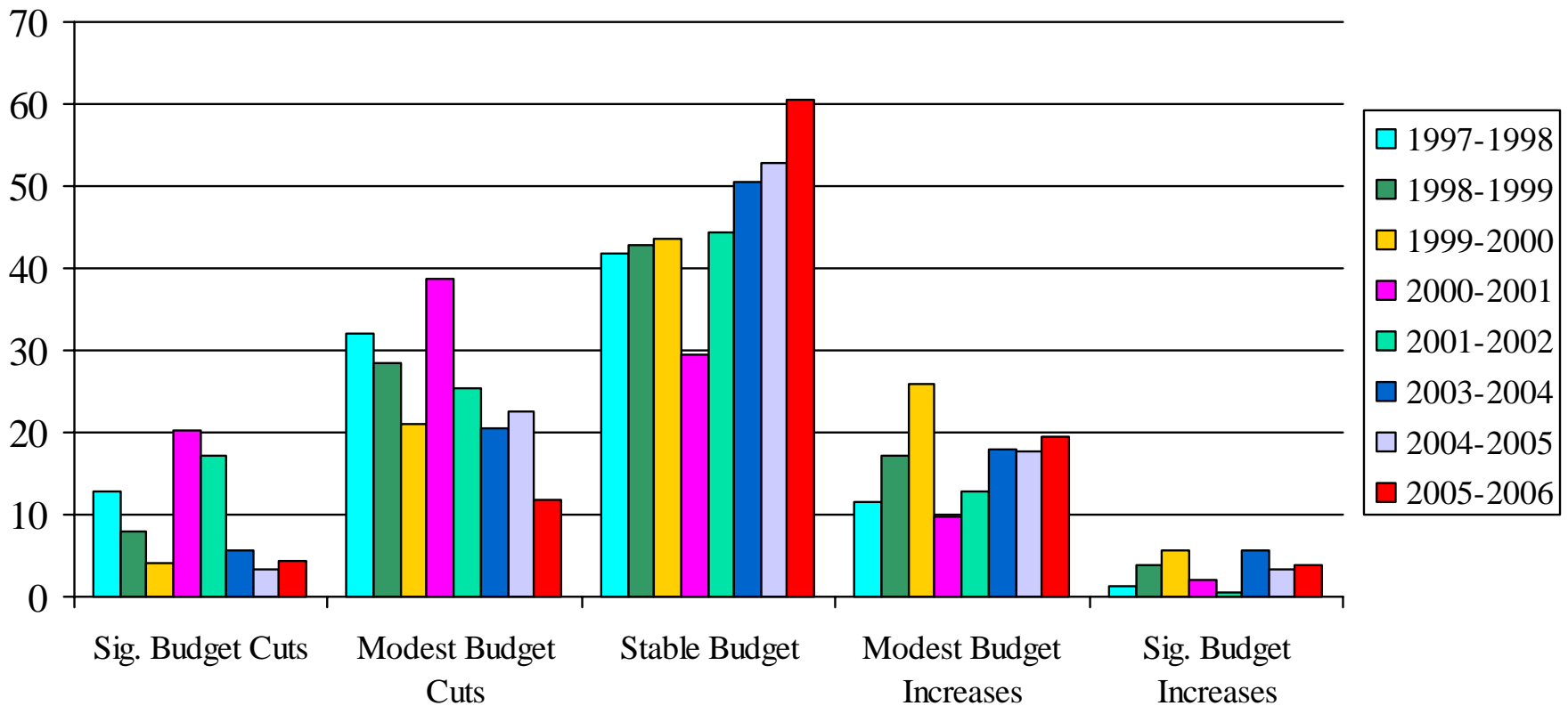
- ◆— \$\$ per Member
- \$\$ per Member if 1+ Projects
- ▲— \$\$ per Project

\$\$ per Member, M = \$233,890
 \$\$ per Member if 1+ Projects, M = \$441,420
 \$\$ per Project, M = \$264,650



Note: 2002-2003 data not included

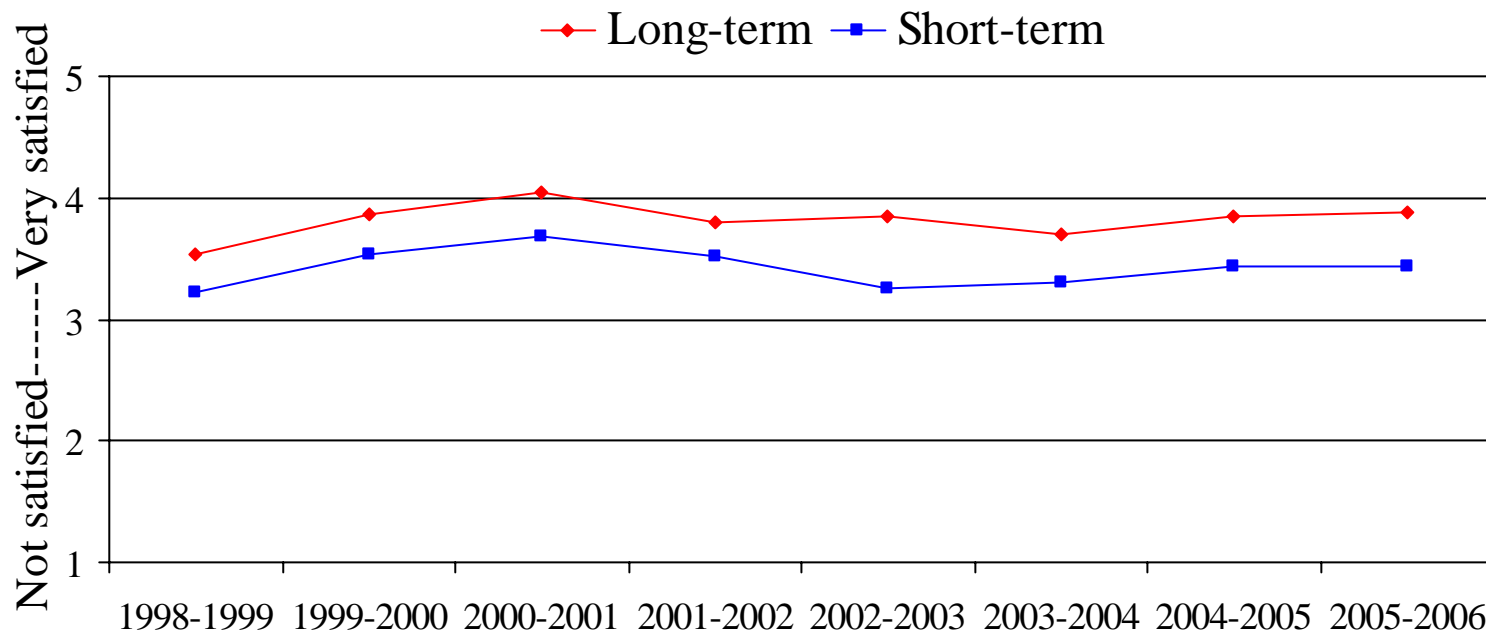
Estimate of Organization's financial status for next fiscal year



Note: 2002-2003 data not included

During the past year, how satisfied were you with the following features of the Center's research program?

Relevance of research to my organizations short-term (long-term) needs

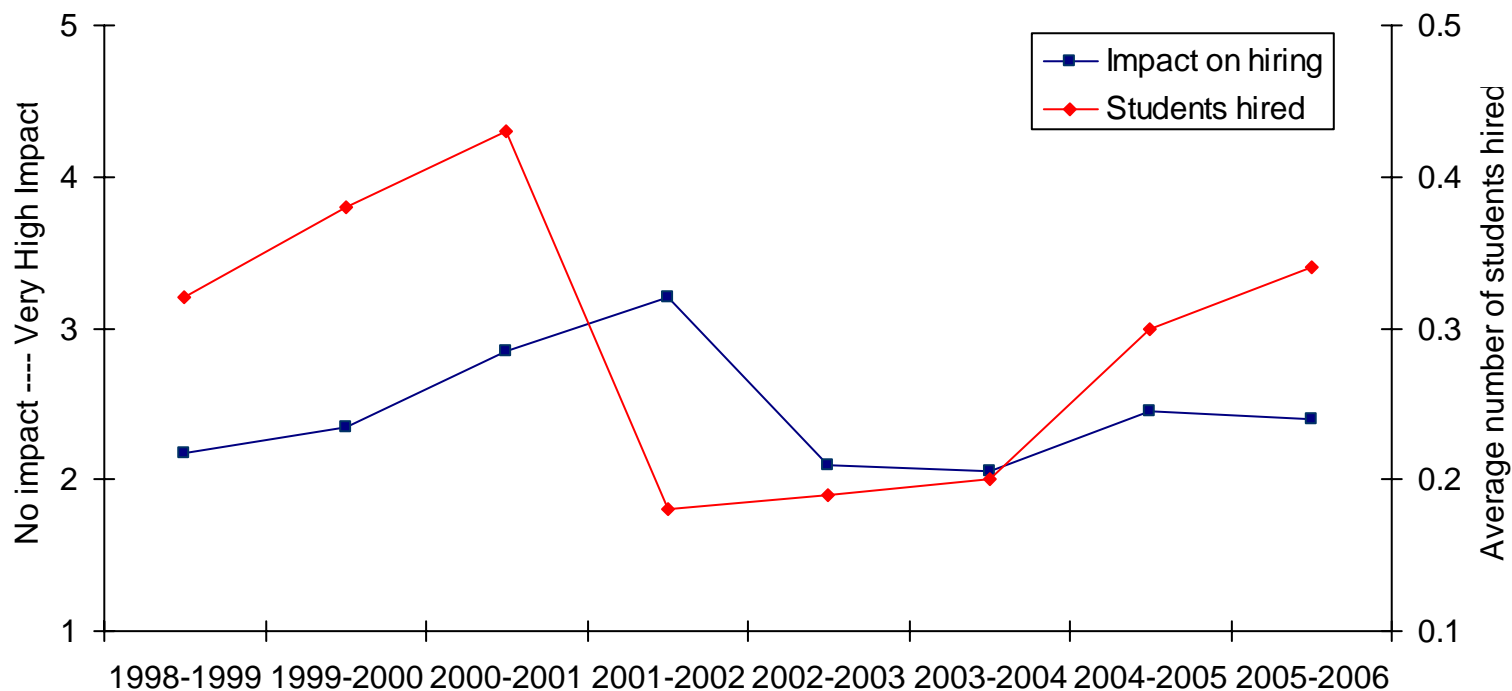


Note: 2002-2003 data based on subset of Centers

Ability to recruit talented students - and - Average reported students hired

*How has participation in the center enhanced your ability to recruit talented students? (left axis)
*During the past year, how many students trained in the Center projects were hired by your organization? (right axis)

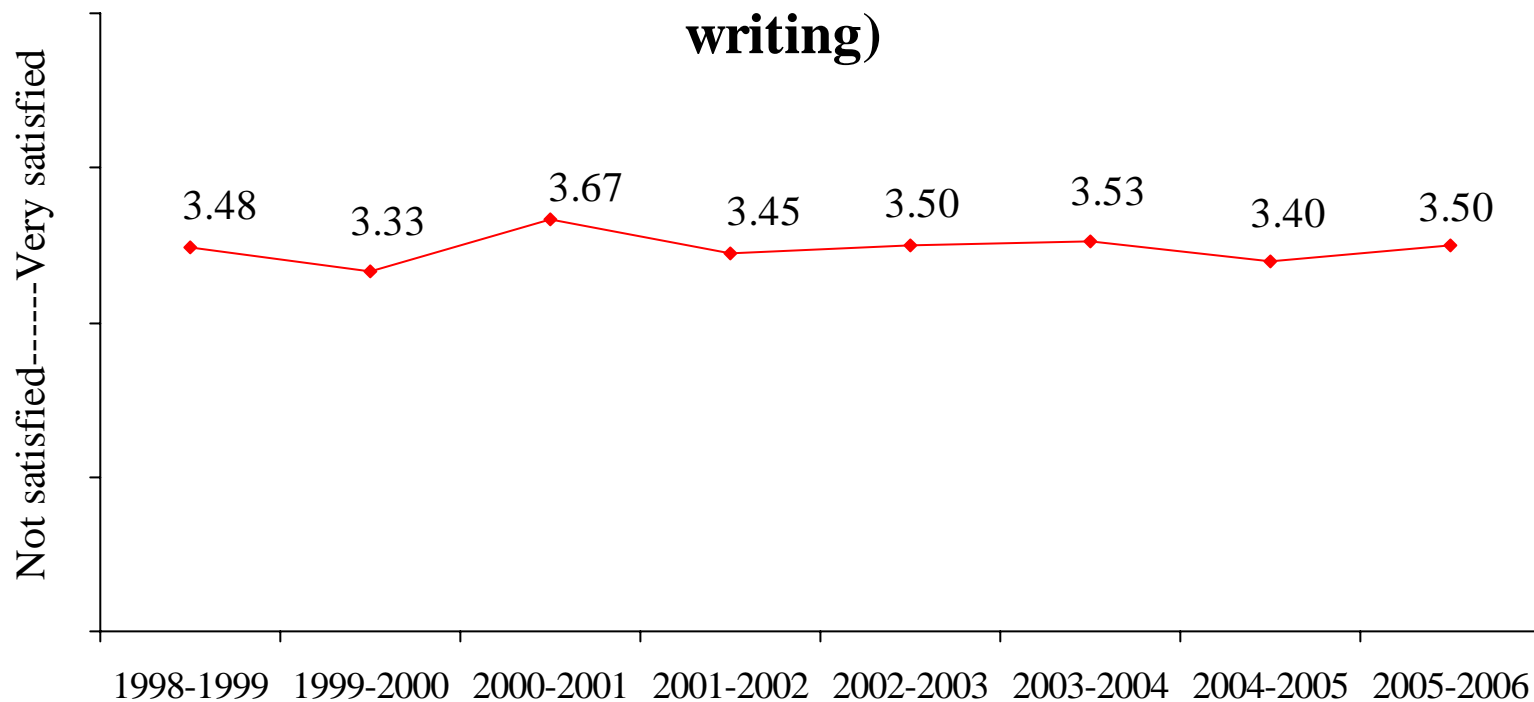
Impact on ability to recruit students (purple, left axis) and number of students hired (red, right axis)



Note: 2002-2003 data based on subset of Centers

During the past year, how satisfied were you with the following features of the Center's administrative operations?

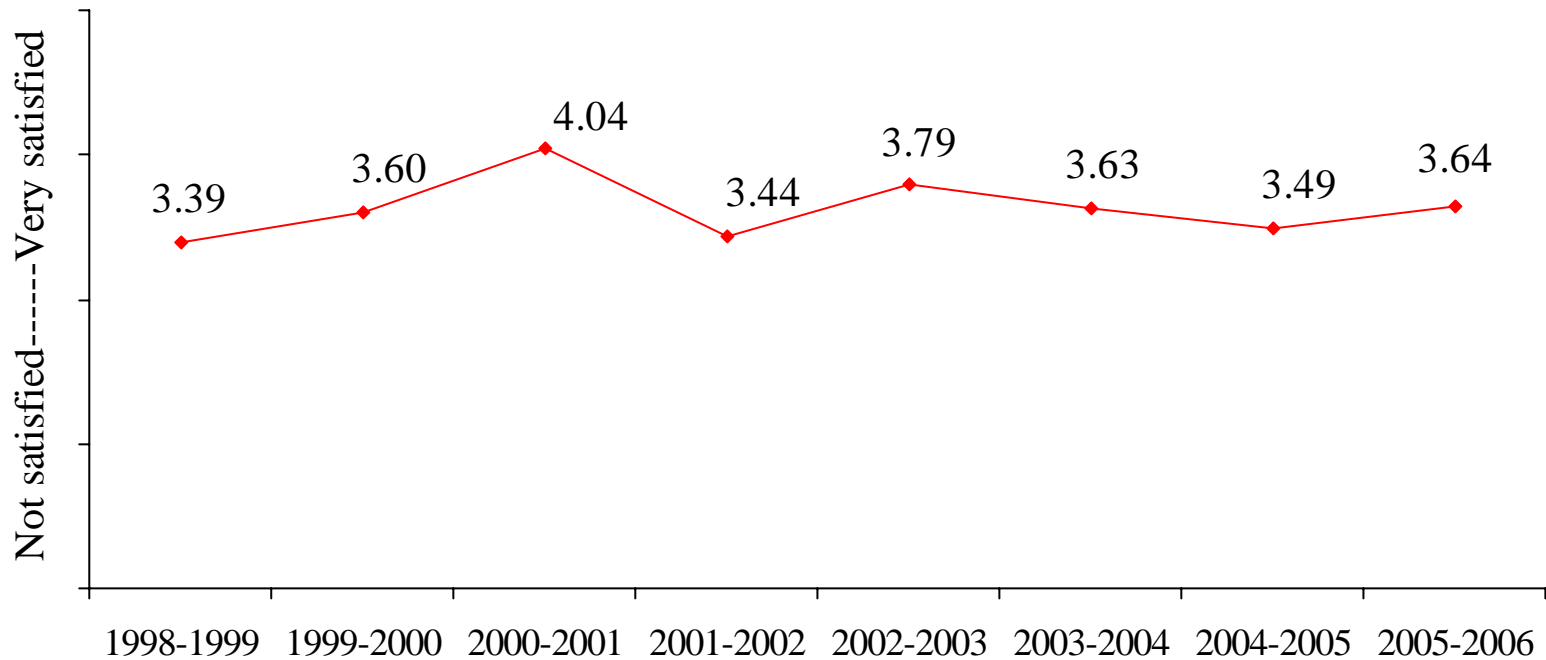
Center fundraising (e.g. member recruitment, grant-writing)



Note: 2002-2003 data based on subset of Centers

During the past year, how satisfied were you with the following features of the Center's administrative operations?

Management of intellectual property issues



Note: 2002-2003 data based on subset of Centers

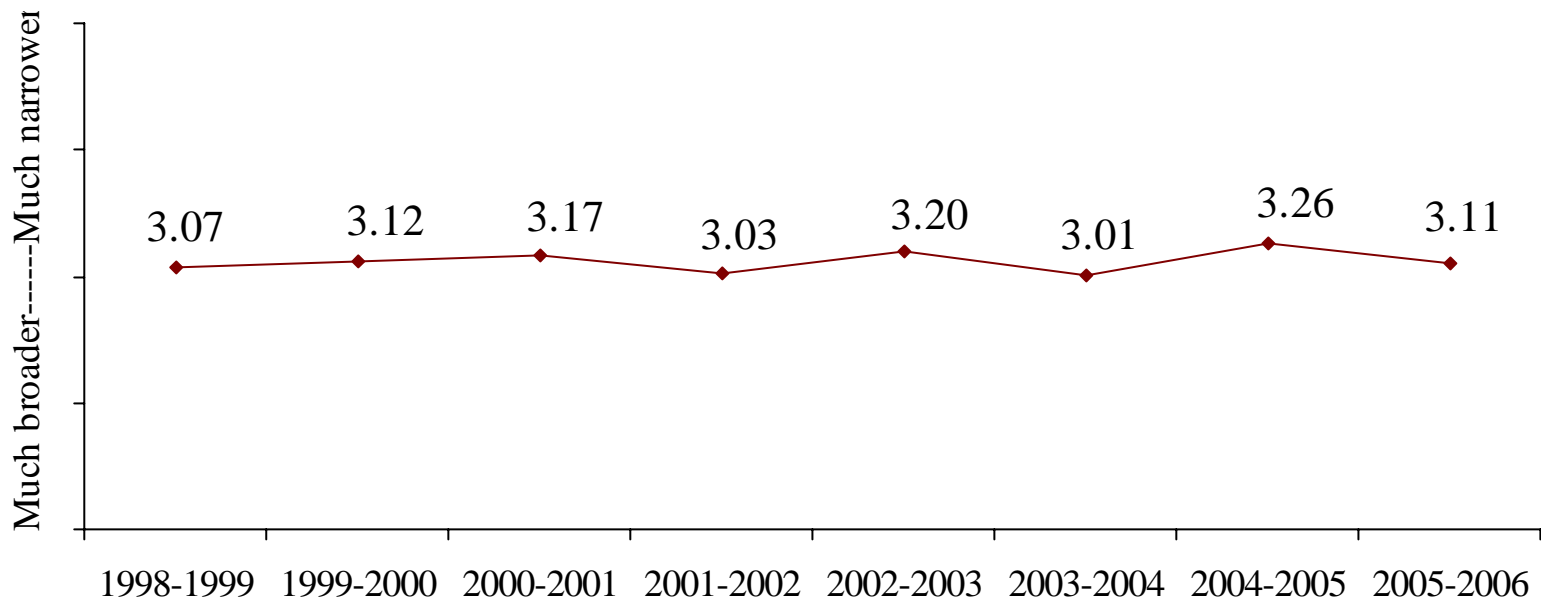


Faculty Questionnaire

Select Results

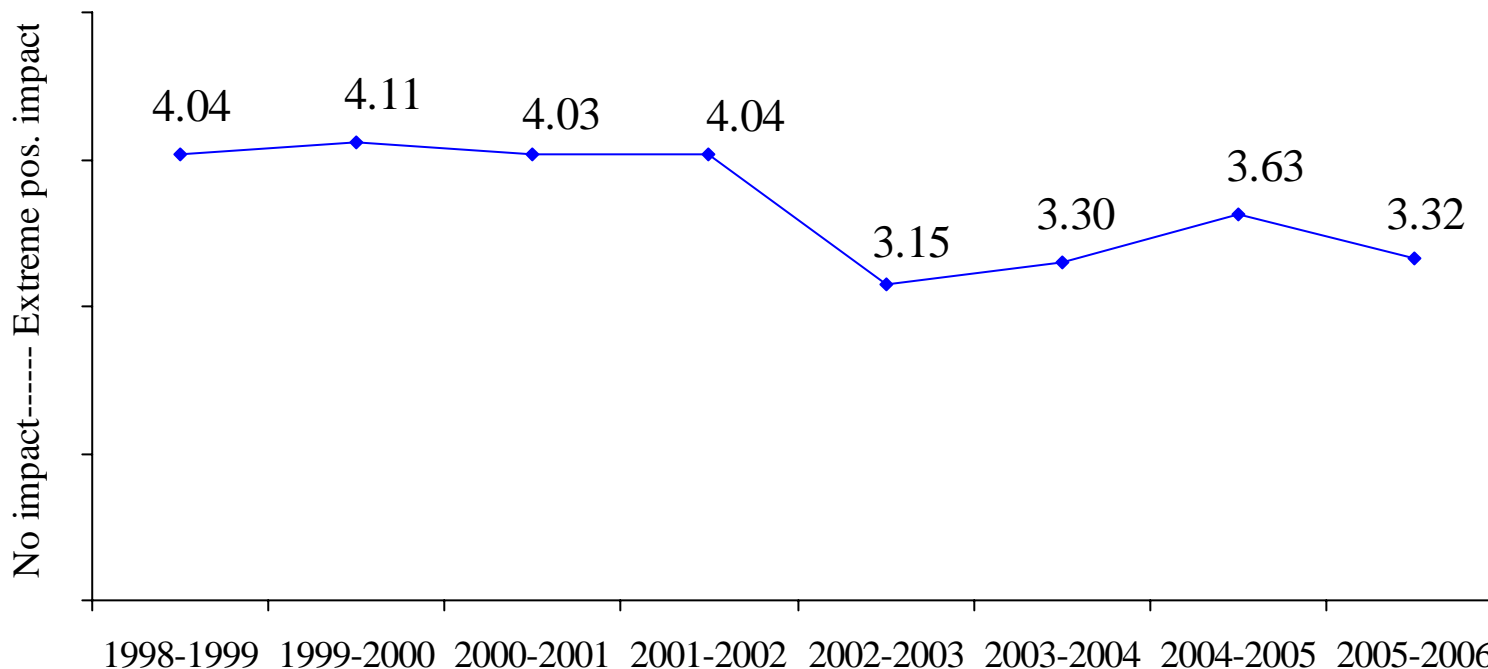
Compared to the research projects that you typically conduct outside the Center, would you describe your Center-funded research as:

Scope of Center research relative to research conducted outside the Center



During the past year, what impact has participation in the Center had for YOU in the following areas?

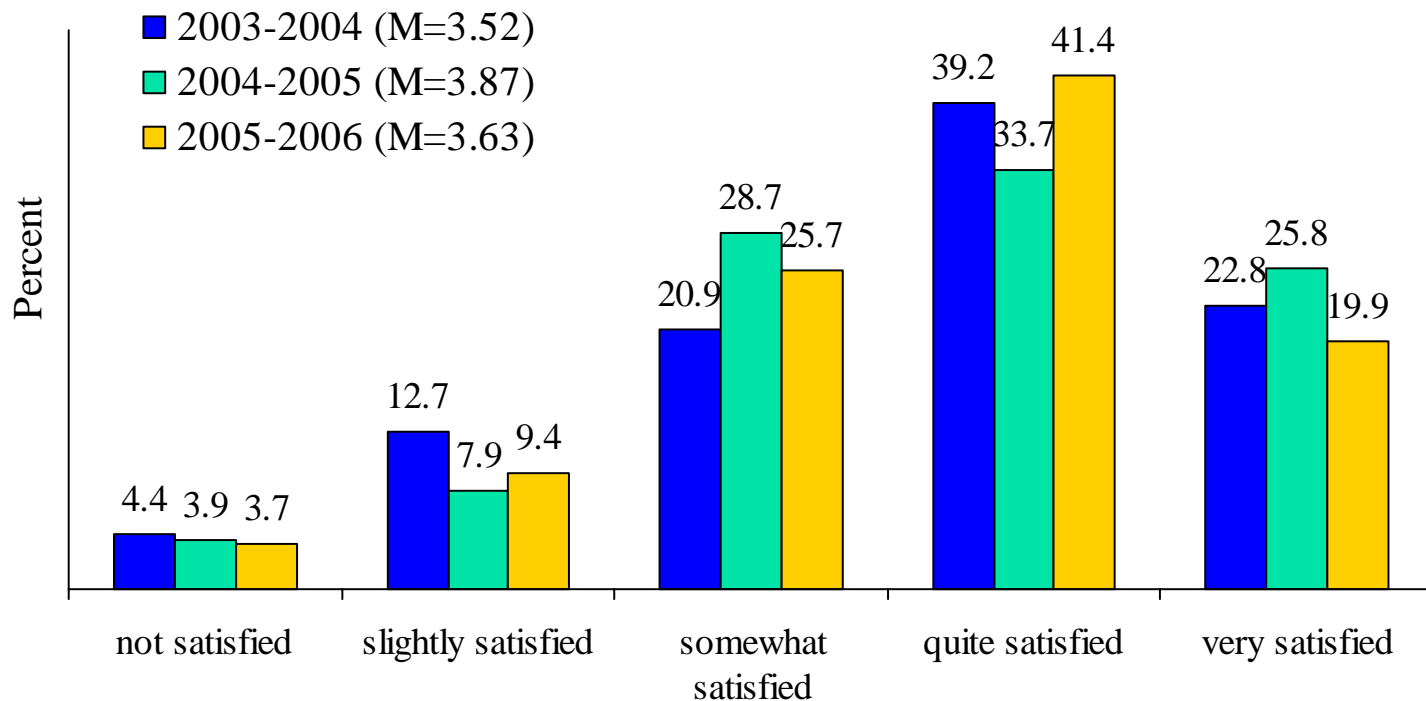
Opportunities for research contracts/grants



Note: scale anchor change in 2002-2003. Formerly 'Very negative impact' to 'Very positive impact'

Satisfaction

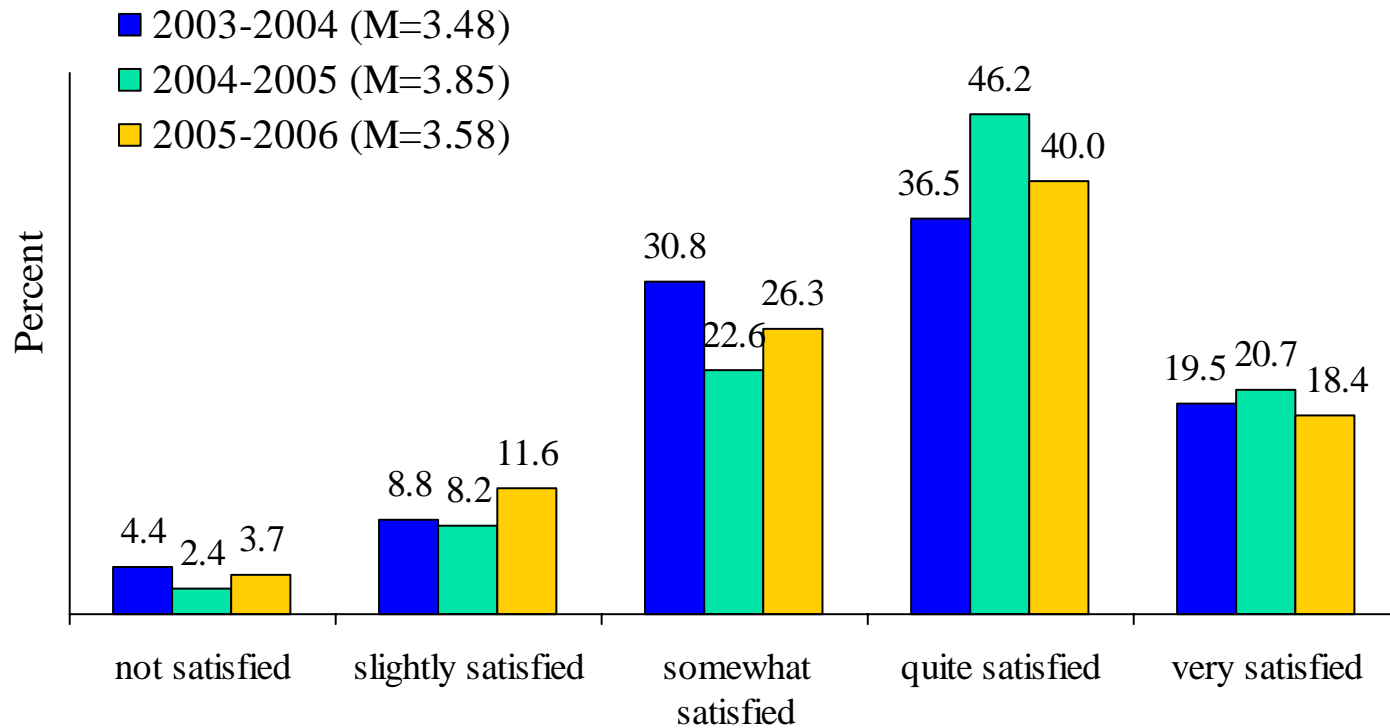
During the past year, how satisfied were you with the frequency and quality of interactions with industry members?



*Note: Means reported at Center-level

Satisfaction

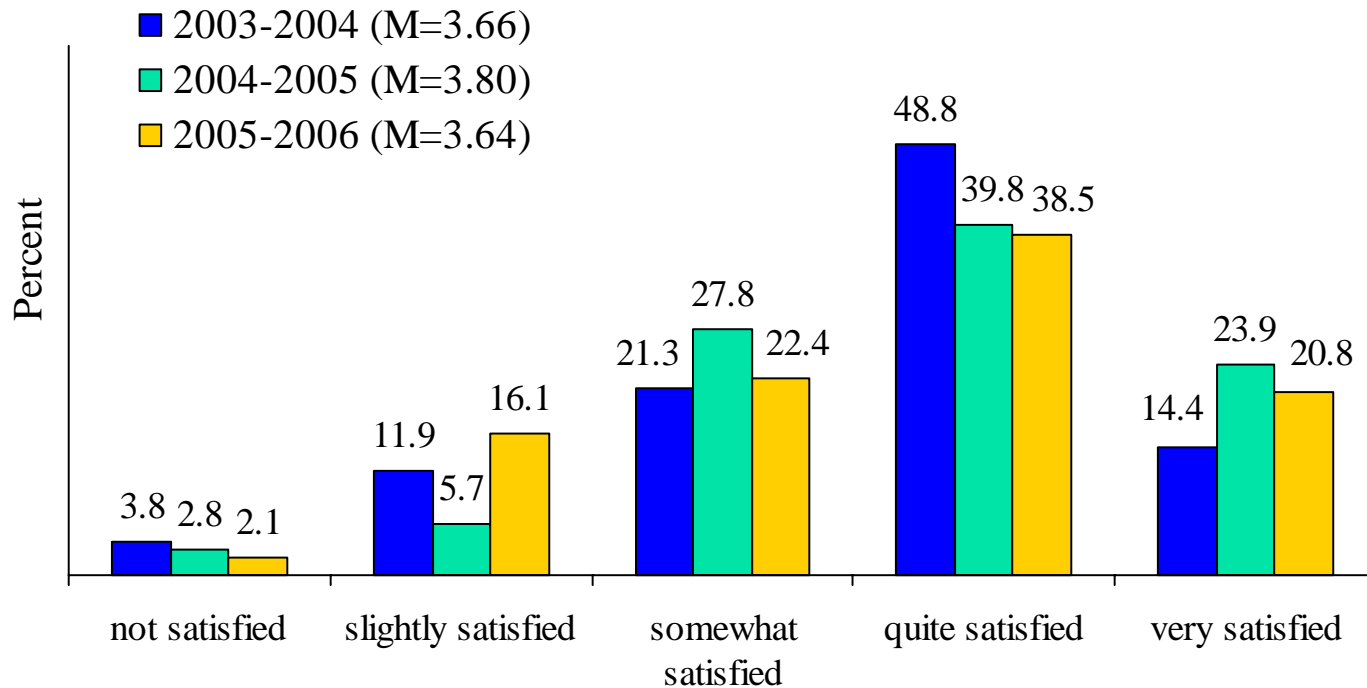
During the past year, how satisfied were you with the frequency and quality of interactions with other faculty and student researchers?



*Note: Means reported at Center-level

Satisfaction

During the past year, how satisfied were you with the research sophistication shown by your center's members?



*Note: Means reported at Center-level



How Should These Process/Outcome Results be Used?

- ◆ By comparing means, medians, and standard deviations, evaluators can see how their centers compare to national “norms”
- ◆ Insert national data into industry software tools for this year/last year comparisons with your center
- ◆ Move current center means to previous year in e-mail software package
- ◆ We will develop Faculty tool