

Research Trends and Opportunities

John Gilligan, Vice Chancellor for Research and Graduate Studies

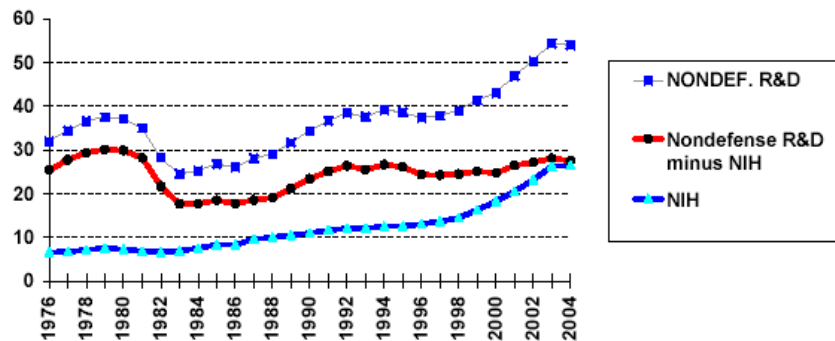
Expectations

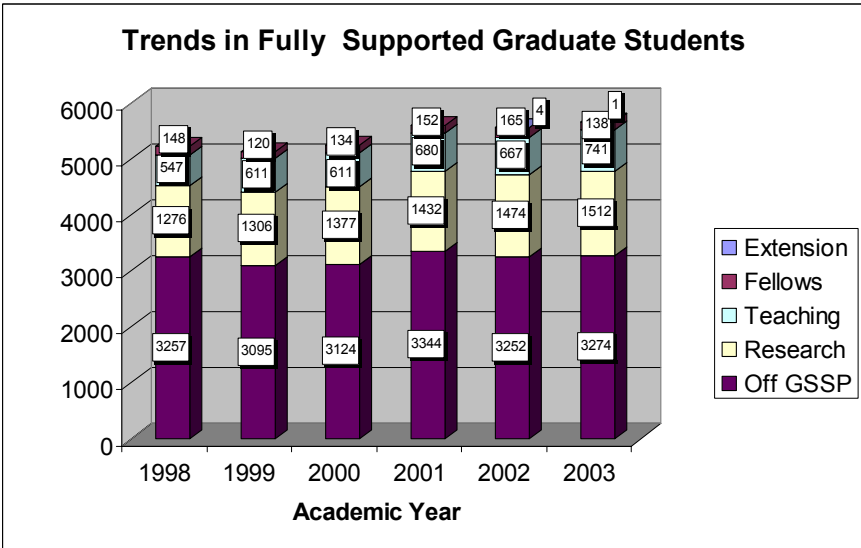
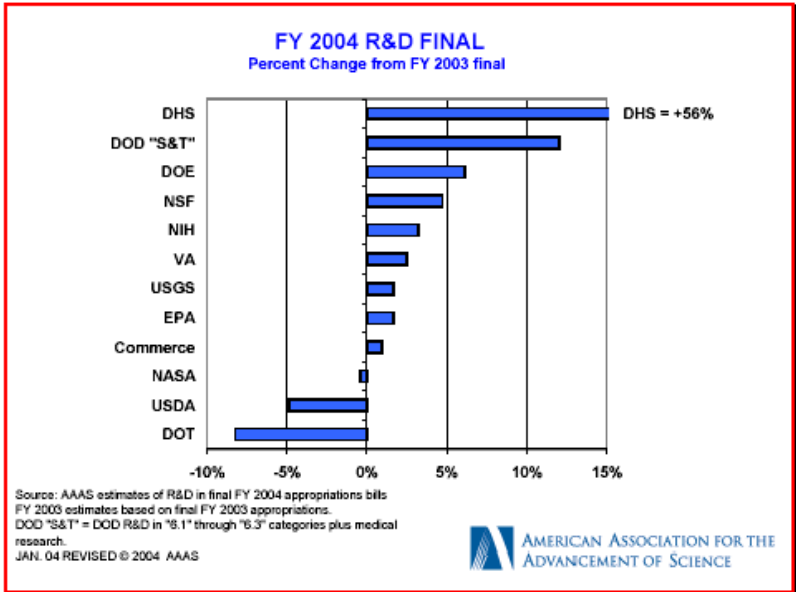
- State support will continue to decrease for research
- Need annual research dollar growth of 12%
- Need to increase PhD degrees per faculty by 50%
- Graduate enrollment growth of 40% in eight years
- Faculty holding grants increase from 60% to 80%
- Rely more heavily on federal support
- Target large federal projects

Federal Research Climate

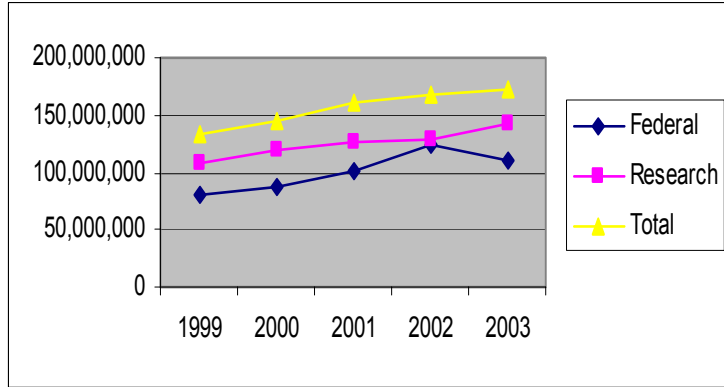
- Need for federal \$ growth, stability
- Past NCSU trends in sponsored awards
- Large federal opportunities
- Federal 04 growth
- Federal 05 growth

Selected Trends in Nondefense R&D, FY 1976-2004 in billions of constant FY 2003 dollars

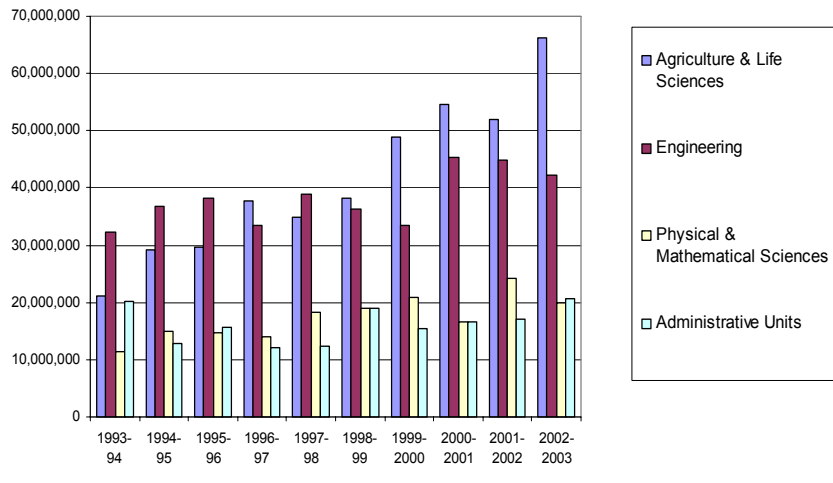




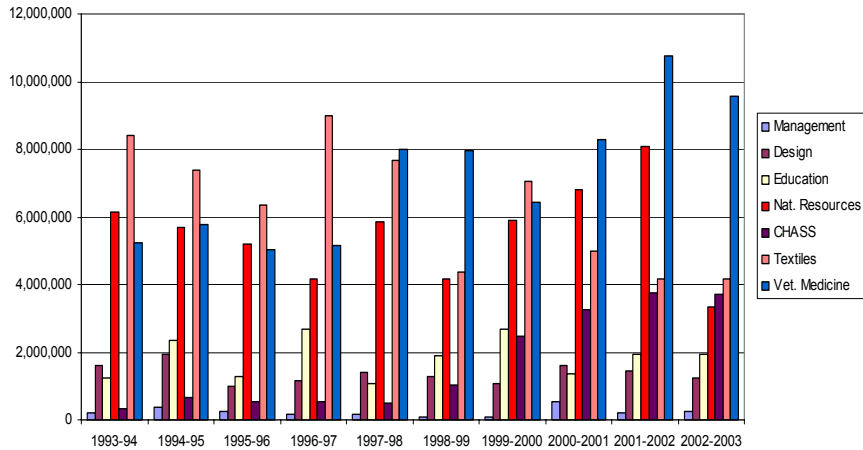
Sponsored Awards Amounts



10 Year Award Data for CALS, PAMS, COE and ADMIN



10 Year Award Data for COD, EDU, CHASS, COM, CNR, COT and CVM



Sponsored Award Agreements by Source

Source	Fiscal Year 1999-2000	Fiscal Year 2000-2001	Fiscal Year 2001-2002	Fiscal Year 2002-2003
US Department of Agriculture (USDA)	14,030,468	11,922,113	20,566,101	18,357,675
US Department of Commerce (DoC)	5,752,745	4,982,449	5,527,393	9,283,026
US Department of Defense (DOD)	12,404,976	15,104,613	13,578,217	14,541,950
US Department of Education (DoEd)	3,709,398	3,723,308	3,666,092	4,666,478
US Department of Energy (DoE)	4,570,745	3,801,214	6,538,704	6,063,024
US Department of Health & Human Services (DHHS) (Non-NIH)	375,367	486,857	491,822	859,290
US DHHS National Institutes of Health (NIH)	8,872,888	12,745,772	12,750,057	20,418,131
US Department of Housing & Urban Development (HUD)	42,000	0	30,000	0
US Department of the Interior (DoI)	1,131,152	1,805,401	1,505,615	1,509,025
US Department of Justice (DOJ)	19,970	57,383	166,800	572,551
US Department of Labor (DoL)	0	0	0	0
US Department of Transportation (DoT)	645,896	1,574,977	1,158,400	1,199,910
Corporation for National & Community Service	0	0	0	0
US Environmental Protection Agency	3,916,593	2,628,420	3,250,379	1,343,344
Appalachian Regional Commission	0	0	0	0
Library of Congress	0	0	0	0
National Aeronautics & Space Administration	2,345,994	1,954,943	2,919,684	2,897,658
National Foundation of the Arts & Humanities (NEA & NEH)	0	10,000	78,000	200,375
National Science Foundation (NSF)	20,413,599	20,086,301	27,152,569	28,111,182
Nuclear Regulatory Commission (NRC)	25,000	0	0	0
Peace Corps	12,700	16,221	16,158	18,862
Smithsonian Astrophysical Observatory	0	82,778	118,847	0
US International Development Corporation Agency (USAID)	0	0	0	0
All other Federal Agencies	0	95,199	81,132	37,377
	78,269,491	81,077,949	99,595,970	110,079,858
State of North Carolina	26,461,541	30,055,943	29,771,319	18,837,589
Local Governments	1,681,221	1,186,499	1,016,749	630,789
Foundations	4,151,888	6,189,130	5,502,239	7,820,412
Industry	20,870,058	27,157,576	17,617,619	34,972,027
Other	12,653,566	14,241,057	14,598,937	873,845
Total	144,087,765	159,908,154	168,102,833	173,214,520

Research Initiatives

- Reduce barriers/facilitate approvals
- Increase multidisciplinary thrusts
- Build new graduate programs, enrollment
- Invest in research development

Reduce Barriers

- Science and technology advisory group
- URC/ROC/Faculty focus group
- Direct meeting with faculty

Multidisciplinary Thrusts

Faculty working groups

- Homeland security
- Nanotechnology, materials
- Biotechnology, genomics, proteomics
- Information Technology, computation

Reduce departmental boundaries

New Graduate Programs

- PhD, Biomedical Engineering; Communication, Rhetoric and Digital Media
- Masters, Financial Mathematics; Training and Development; Languages; Creative Writing; Social Work; Art and Design; Veterinary Public Health; Distance Education...

Research Development

- Seed investment
- Writing/organizational assistance
- Federal earmark process
- Match, startup packages
- Patent trust fund
- Large center objective
- Federal coalition partners
- Reward research active colleges, PIs

