

**NATIONAL SCIENCE FOUNDATION
INDUSTRY/UNIVERSITY
COOPERATIVE RESEARCH CENTERS**

**FINAL
1994-1995 STRUCTURAL INFORMATION^{1,2}**

- **TABLE 1:** GENERAL INFORMATION
- **TABLE 2:** OPERATING BUDGET: BREAKDOWN OF DIRECT FUNDING
- **TABLE 3:** BUDGET FIGURES & CAPITAL FUNDING
- **TABLE 4:** INDUSTRY MEMBERSHIP DESCRIPTORS
- **TABLE 5:** HUMAN RESOURCES
- **TABLE 6:** CENTER DIRECTOR DESCRIPTORS
- **TABLE 7:** INTELLECTUAL PROPERTY EVENTS
- **APPENDIX:** FOOTNOTES: SPECIAL CONSIDERATIONS

(Footnotes appear on top of columns and/or at end of rows for each Table and are described in the Appendix on the last page).

**D.O. Gray/M.R. Lindblad
DEPARTMENT OF PSYCHOLOGY
NORTH CAROLINA STATE UNIVERSITY**

January, 1996

NOTE: 1994-1995 Table data collected from 49/51 Center Director Surveys (96% response rate).

PLEASE DIRECT QUESTIONS AND COMMENTS TO THE AUTHORS³

TABLE 1
1994-1995 GENERAL INFORMATION

STATUS	YEAR FUNDED	UNIVERSITY (CENTER)	DIRECTOR	# OF DEPTS. INVOLVED	
SELF-SUSTAINING	1990	1. University of Massachusetts (Center on Research on Polymers)	Moynahan, E. Bradley	6	
	1991	2. Case Western Reserve (Center for Applied Polymer Research)	Hiltner, Anne	5	
	1992	3. North Carolina State University/Duke University (Center for Communications & Signal Processing)	Rajala, Sarah A. & Trevidi, K.	3	
			4. Rutgers University (Center for Ceramic Research)	Niesz, Dale E.	2
			5. Georgia Institute of Technology/University of Arkansas (Materials Handling Research Center)	Nembauser, G. & Landers, T.	6
			6. Pennsylvania State University (Center for Dielectric Studies)	Dougherty, Joseph P.	5
	1994	7. Colorado School of Mines (Advanced Steel Processing and Products Research)	Matlock, David	3	
			8. University of Washington (Center for Process Analytical Chemistry)	Baughman, E.	6
			9. New Jersey Institute of Technology (Hazardous Substance Management Research Center)	Magee, Richard S.	6
			10. University of Arizona (Center for Optical Circuitry)	Peyghambarian, N.	*
			11. Northwestern University/Georgia Institute of Technology (Center for Engineering Tribology)	Cheng, Herbert S. & Danyluk, S.	4
			12. University of Arizona (Center for Microcontamination Control)	O'Hanlon, John	4
			13. Northeastern University (Center for Electromagnetics Research)	Silevitch, Michael B.	3
			14. Lehigh University (Chemical Process Modeling & Control Research Center)	Georgakis, Christos	4
	1985	15. Carnegie Mellon University (Iron & Steelmaking Research)	Fruehan, R.J. & Cramb, A.W.	3	
			16. Lehigh University (Center for Innovation Management Studies)	Bean, Alden S.	2
			17. University of Texas at Arlington (Center for Advanced Electron Devices)	Alavi, Kambiz	3
			18. University of Tennessee (Measurement & Control Engineering)	Garrison, Arlene A.	4
			19. Iowa State University (Center for Nondestructive Evaluation)	Thompson, Donald O.	8
	1986	20. Oklahoma State University (Web Handling Research Center)	Reid, Karl N.	3	
			21. Alfred University (Center for Glass Research)	Pye, L. David	2
			22. New Mexico Institute of Mining & Technology (Research Center for Energetic Materials)	Persson, Per-Anders	1
			23. University of Florida/Purdue (Software Engineering Research Center)	Mathur, A., Thebaut, S., & Fickas, S.	3
			24. University of California - Berkeley (Sensors & Actuators Centers)	Muller, Richard	5
	1987	25. University of Iowa (Center for Simulation & Design Optimization of Mechanical Systems)	Haug, Edward J.	4	
			26. North Carolina State Univ./ Univ. of Calif. at Davis (Center for Aseptic Processing & Packing Studies)	Schwartz, S. Shocmaker, S., & Schwartzel, K.	10
	1988	27. University of Colorado (Microwave, Optical & Digital)	Mahajan, Roop	2	
			28. State University of New York at Buffalo (Center for Biosurfaces)	Baier, R.	7
	1989	29. University of New Mexico (Center for Micro-Engineered Ceramics)	Datye, Abhaya K.	4	
			30. University of California at San Diego (Center for Integrated Circuits & Systems)	Ku, Walter	*
			31. Georgia Institute of Technology/University of Arizona (Information Management Research)	McCracken, W.M. & Nunamaker, J.	2
			32. Washington State University (Center for Analog/Digital Integrated Circuits)	Ringo, John	1
MEAN "SELF-SUSTAINING:"				4.0	
3 to 5 YEAR OLDS	1990	33. University of Illinois, Urbana (Air Conditioning & Research Center)	Bullard, Clark W.	2	
		34. University of Connecticut (Center for Grinding Research & Development)	Howes, Trevor D.	4	
		35. University of Michigan (Dimensional Measurement and Control in Manufacturing)	Ni, Jun	4	
	1991	36. Eastern Michigan/North Dakota State (Center for Coatings Research)	Jones, Frank & Urban, Marek	3	
		37. University of North Texas (Center for Nanostructural Materials Research)	McDaniel, Floyd	3	
	1992	38. University of Colorado at Boulder (Center for Separations using Thin Films)	Alan Greenberg & Noble, Richard	5	
		39. Lehigh University (Center for Polymer Interfaces)	El-Aasser, Mohamed S.	5	
		40. North Carolina State University (Center for Integrated Pest Management)	Stinner, Ronald E.	5	
		41. Rutgers University (Center for Wireless Information Networks)	Goodman, David J.	3	
		42. Villanova University (Center for Advanced Communications)	Di Giacomo, Joseph	5	
		43. Carnegie-Mellon University (Center for Building Performance)	Hartkopf, Volker	1	
		44. Arizona State Univ. & Western Network for Educ. in Health Admin. (Center for Health Management)	Zuckerman, H. & Robinson, C.	14	
	MEAN "3 to 5 YEAR OLDS:"				4.5
	2 YEARS & LESS	1993	45. Ohio University (Center for Corrosion in Multiphase Systems)	Jepson, W. Paul	1
1994		46. University of Illinois (Center for Machine-Tool Systems)	Kapoor, Shiv	6	
		47. University of Massachusetts (Center for Polymer Biodegradation)	McCarthy, Steve & Gross, Richard	4	
		48. New Jersey Institute of Technology (Center for Emission Reduction Research)	Watts, Daniel	4	
		49. University of Rhode Island (Center for Ocean Technology)	Callahan, Jefferey	4	
		50. Stanford University (Center for Composite Design)	Tsai, Stephen	1	
		51. Colorado School of Mines/Arizona State University (Ctr. for Adv. Control of Energy and Power Sys.)	Shoureshi, R. & Heydt, G.	3	
MEAN "2 YEARS & LESS:"				3.3	
GRAND MEAN:				4.0	
GRAND SUM:				198	
NEW CENTERS	1995	52. Texas A&M (Center in Ergonomics)	Congleton, Jerome		
		53. Purdue University (Pharmaceutical Center)	Nail, Stephen		
		54. Pennsylvania State University (Particulate Materials Center)	Messing, Gary		
		55. Rutgers University (Center for Packaging and Resource Recovery)	McLaren, Malcolm		

TABLE 2

1994-1995 OPERATING BUDGET: BREAKDOWN OF DIRECT FUNDING

			6	7	8	9	10	11	12
STATUS	YEAR	ABBREVIATED NAME	TOTAL DIRECT	NSF FUNDING	INDUSTRY MEMBER FEES	OTHER INDUSTRY FUNDING	STATE FUNDING	OTHER FUNDING	UNIVERSITY DIRECT FUNDS
SELF-SUSTAINING	1980	1. Mass. (Polymers)	\$721,750	\$16,448	\$154,878	\$384,488	\$0	\$0	\$165,936
	1981	2. Case Western (Polymers)	.	.	.	.	.	.	.
	1982	3. NCSU/Duke (Communication/Signal Proc.)	\$807,937	\$128,730	\$164,048	\$320,321	\$20,593	\$92,518	\$81,727
		4. Rutgers (Ceramic)	\$4,055,210	\$55,083	\$251,572	\$1,181,068	\$1,430,355	\$310,782	\$826,350
		5. Georgia Tech. (Materials Handling)	\$663,486	\$74,746	\$395,306	\$0	\$0	\$28,114	\$165,320
		6. Penn. State (Dielectrics Studies)	\$421,667	\$26,635	\$121,056	\$155,976	\$24,000	\$0	\$94,000
	1984	7. Colorado School of Mines (Steel)	\$871,993	\$26,613	\$811,106	\$34,274	\$0	\$0	\$0
		8. Washington (Process Analytical Chem.)	\$772,897	\$80,078	\$558,775	\$0	\$0	\$10,000	\$124,044
		9. NJIT (Hazardous Substance Mgmt.)	\$10,094,545	\$74,833	\$371,428	\$315,000	\$2,865,031	\$5,983,131	\$485,122
		10. Arizona (Optical Circuitry)	.	.	.	.	.	.	.
		11. Northwestern/Georgia Inst. of Tech. (Engin	\$558,853	\$48,897	\$323,750	\$186,206	\$0	\$0	\$0
		12. Arizona (Microcontamination)	\$425,996	\$31,800	\$367,624	\$0	\$18,887	\$5,000	\$2,685
		13. Northeastern (Electromagnetics)	\$865,545	\$58,000	\$55,000	\$228,979	\$0	\$450,566	\$73,000
		14. Lehigh (Chemical Process)	\$259,330	\$43,000	\$165,000	\$0	\$0	\$0	\$51,330
		15. Carnegie Mellon (Iron & Steelmaking)	\$894,000	\$42,000	\$700,000	\$0	\$0	\$152,000	\$0
		16. Lehigh (Innovation)	\$327,998	\$45,141	\$180,000	\$0	\$0	\$98,857	\$4,000
		17. Texas - Arlington (Adv. Electron Devices)	\$129,000	\$40,000	\$60,000	\$9,000	\$0	\$0	\$20,000
		18. Tennessee (Measurement & Control)	\$530,264	\$50,544	\$377,500	\$22,000	\$0	\$22,733	\$57,487
		19. Iowa State (Nondestructive Evaluation)	\$1,163,380	\$98,000	\$630,000	\$0	\$385,758	\$0	\$49,622
	1986	20. Oklahoma State (Web Handling)	\$595,000	\$43,000	\$425,000	\$30,000	\$42,000	\$18,000	\$37,000
		21. Alfred (Glass)	\$693,444	\$98,000	\$595,444	\$0	\$0	\$0	\$0
		22. New Mexico Inst. (Energetic)	\$262,660	\$35,830	\$150,830	\$0	\$0	\$0	\$76,000
		23. Florida/Purdue (Software Eng.)	\$487,953	\$98,353	\$133,800	\$0	\$125,000	\$0	\$130,800
		24. UC Berkeley (Sensors & Actuators)	\$1,719,845	\$149,785	\$830,000	\$97,359	\$160,746	\$474,955	\$7,000
	1987	25. Iowa (Simulation & Design)	\$3,765,291	\$40,000	\$480,000	\$471,180	\$0	\$2,774,111	\$0
		26. NCSU/ UC Davis (Aseptic Processing)	\$383,093	\$32,654	\$271,500	\$8,502	\$0	\$34,587	\$35,850
	1988	27. Colorado (Microwave, Optical & Digital)	\$667,171	\$0	\$451,720	\$0	\$0	\$212,951	\$2,500
		28. SUNY at Buffalo (Biosurfaces)	\$589,296	\$178,000	\$240,000	\$38,000	\$0	\$73,296	\$60,000
	1989	29. New Mexico (Micro-Engineered Ceramics)	\$1,608,180	\$51,759	\$330,000	\$252,066	\$75,000	\$620,474	\$278,881
		30. Calif. - San Diego (Integrated Circuits)	.	.	.	.	.	.	.
		31. Ga. Tech./Arizona (Information Mgmt.)	\$78,000	\$50,000	\$0	\$18,000	\$0	\$0	\$10,000
		32. Washington State (Integrated Circuits)	\$675,128	\$140,128	\$390,000	\$0	\$95,000	\$0	\$50,000
		MEAN "SELF-SUSTAINING:"	\$1,209,962	\$64,071	\$344,322	\$129,394	\$180,771	\$391,796	\$99,609
3 to 5 YEAR OLDS	1990	33. Univ. of Illinois (Air Conditioning)	\$867,000	\$35,000	\$675,000	\$150,000	\$0	\$0	\$7,000
		34. Univ. of Connecticut (Grinding)	\$2,390,614	\$80,000	\$309,000	\$6,080	\$484,500	\$1,351,034	\$160,000
		35. Univ. of Michigan (Dimensional Measureme	\$515,000	\$50,000	\$350,000	\$115,000	\$0	\$0	\$0
	1991	36. Eastern Michigan/North Dakota State (Coat	\$321,167	\$43,667	\$210,000	\$0	\$60,000	\$0	\$7,500
		37. Univ. of North Texas (Nanostructure)	\$771,755	\$45,000	\$120,000	\$550,000	\$12,000	\$0	\$44,755
	1992	38. Univ. of Colorado (Thin Film)	\$604,046	\$45,296	\$413,250	\$38,000	\$65,000	\$0	\$42,500
		39. Lehigh (Polymer Interfaces)	\$400,069	\$50,000	\$280,000	\$38,842	\$0	\$23,210	\$8,017
		40. NCSU (Pest Management)	\$245,046	\$71,530	\$159,817	\$13,699	\$0	\$0	\$0
		41. Rutgers (Wireless Information)	\$1,435,063	\$17,327	\$870,000	\$111,058	\$0	\$205,900	\$230,778
		42. Villanova (Advanced Communication)	\$420,000	\$50,000	\$195,000	\$0	\$125,000	\$50,000	\$0
		43. Carnegie-Mellon (Building Performance)	\$513,187	\$79,207	\$266,432	\$44,453	\$0	\$123,095	\$0
	44. Arizona St./West. Network (Health Mgmt.)	\$393,300	\$50,000	\$343,300	\$0	\$0	\$0	\$0	
		MEAN "3 to 5 YEAR OLDS:"	\$739,687	\$51,419	\$349,317	\$88,928	\$62,208	\$146,103	\$41,713
2 YEARS & LESS	1993	45. Ohio University (Corrosion)	\$528,000	\$40,000	\$368,000	\$95,000	\$0	\$0	\$25,000
	1994	46. Illinois (Machine-Tool Systems)	\$427,247	\$50,000	\$377,247	\$0	\$0	\$0	\$0
		47. Mass. (Polymer Biodegradation)	\$512,000	\$50,000	\$270,000	\$132,000	\$0	\$0	\$60,000
		48. NJIT (Emission Reduction)	\$2,020,000	\$50,000	\$400,000	\$602,000	\$90,000	\$608,000	\$270,000
		49. Rhode Island (Ocean Technology)	\$263,856	\$36,765	\$130,000	\$52,591	\$7,500	\$0	\$37,000
		50. Stanford (Composite Design)	\$350,000	\$50,000	\$300,000	\$0	\$0	\$0	\$0
		51. CSM/ASU (Energy & Power)	\$560,000	\$110,000	\$250,000	\$0	\$0	\$170,000	\$30,000
		MEAN "2 YEARS & LESS:"	\$665,872	\$55,252	\$299,321	\$125,942	\$13,929	\$111,143	\$60,286
		GRAND MEANS:	\$1,013,047	\$59,622	\$339,008	\$118,774	\$126,799	\$289,444	\$79,400
		GRAND SUMS:	\$48,626,262	\$2,861,849	\$16,272,383	\$5,701,142	\$6,086,370	\$13,893,314	\$3,811,204

TABLE 3
1994-1995 BUDGET FIGURES & CAPITAL FUNDING

STATUS	YEAR	ABBREVIATED NAME	A		B		C		D		E		F		G		H		NSF OVERHEAD (%)	INDUSTRY OVERHEAD (%)
			DIRECT FUNDING	OVERHEAD CHARGES	TOTAL BUDGET (A+B)	UNIVERSITY WAIVED OVERHEAD	EFFECTIVE BUDGET (C+D)	TOTAL CAPITAL FUNDING	SOFTWARE	EQUIPMENT	PERSONNEL	OTHER								
1994	1	Mass. (Polymers)	\$721,750	\$55,313	\$777,063	\$0	\$777,063	\$0	\$6,250,000	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	52%	52%	
	2	Case Western (Polymers)	\$807,937	\$183,115	\$1,500,000	\$0	\$1,500,000	\$0	\$200,000	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	51%	20%	
	3	NCSU/Duke (Communication/Signal Proc.)	\$4,055,210	\$557,767	\$991,052	\$92,009	\$1,083,061	\$392,594	\$377,594	\$0	\$377,594	\$0	\$0	\$0	\$0	\$0	\$0	48%	10%	
	4	Rutgers (Ceramic)	\$663,486	\$99,876	\$4,612,977	\$0	\$4,612,977	\$0	\$0	\$0	\$15,000	\$0	\$0	\$0	\$0	\$0	\$0	59%	59%	
	5	Georgia Tech. (Materials Handling)	\$421,667	\$622,000	\$763,362	\$117,382	\$880,744	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	46%	45%	
	6	Penn. State (Dielectrics Studies)	\$871,993	\$166,807	\$622,000	\$41,000	\$663,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	24%	24%	
	7	Colorado School of Mines (Steel)	\$772,897	\$540,812	\$1,038,800	\$133,174	\$1,171,974	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	49%	49%	
	8	Washington (Process Analytical Chem.)	\$10,094,545	\$2,269,780	\$1,313,709	\$0	\$1,313,709	\$0	\$0	\$0	\$83,000	\$0	\$0	\$0	\$0	\$0	\$0	0%	5%	
	9	NIJ (Hazardous Substance Mgmt.)	\$58,853	\$142,505	\$701,358	\$132,375	\$833,733	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	48%	10%	
	1993	10	Arizona (Optical Circuitry)	\$425,996	\$138,576	\$564,572	\$20,085	\$584,657	\$226,000	\$0	\$0	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	51%	51%
11		Northwestern/Georgia Inst. of Tech. (Eng)	\$65,545	\$50,000	\$915,545	\$150,000	\$1,065,545	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	58%	0%	
12		Arizona (Microcontamination)	\$259,330	\$18,435	\$277,765	\$87,722	\$365,487	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	56%	10%	
13		Northeastern (Electromagnetics)	\$894,000	\$98,000	\$992,000	\$0	\$992,000	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	62%	62%	
14		Lehigh (Chemical Process)	\$327,998	\$72,740	\$400,738	\$0	\$400,738	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	55%	10%	
15		Carnegie Mellon (Iron & Steelmaking)	\$129,000	\$0	\$129,000	\$0	\$129,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	0%	
16		Lehigh (Innovation)	\$530,264	\$0	\$530,264	\$228,014	\$758,278	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	43%	43%	
17		Texas - Arlington (Adv. Electron Devices)	\$1,163,380	\$28,085	\$1,191,465	\$277,200	\$1,468,665	\$150,000	\$0	\$0	\$225,000	\$0	\$0	\$0	\$0	\$0	\$0	44%	0%	
18		Tennessee (Measurement & Control)	\$595,000	\$0	\$595,000	\$182,000	\$777,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	0%	
19		Iowa State (Nondestructive Evaluation)	\$693,444	\$120,000	\$813,444	\$0	\$933,444	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	75%	82%	
1986	20	Oklahoma State (Web Handling)	\$262,650	\$37,340	\$300,000	\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	33%	33%	
	21	Ahmed (Glass)	\$487,953	\$98,284	\$586,237	\$0	\$586,237	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	49%	25%	
	22	New Mexico Inst. (Energetic)	\$1,719,845	\$292,850	\$2,012,695	\$414,170	\$2,426,865	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	50%	0%	
	23	Florida/Purdue (Software Eng.)	\$383,093	\$47,447	\$430,540	\$114,000	\$544,540	\$197,845	\$0	\$0	\$45,000	\$0	\$0	\$0	\$0	\$0	\$0	47%	0%	
	24	UC Berkeley (Sensors & Actuators)	\$667,171	\$116,409	\$783,580	\$196,498	\$980,078	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	44%	5%	
	25	Iowa (Simulation & Design)	\$589,296	\$50,940	\$640,236	\$120,000	\$760,236	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	52%	12%	
	26	NCSU/UC Davis (Aspheric Processing)	\$1,608,180	\$353,209	\$1,961,389	\$145,422	\$2,106,811	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	48%	0%	
	27	Colorado (Microwave, Optical & Digital)	\$78,000	\$20,000	\$98,000	\$0	\$98,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	35%	50%	
	28	SUNY at Buffalo (Biosurfaces)	\$675,128	\$63,058	\$738,186	\$218,250	\$956,436	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	45%	0%	
	29	New Mexico (Micro-Engineered Ceramics)	\$1,209,942	\$200,748	\$1,410,690	\$160,279	\$1,570,969	\$241,548	\$0	\$0	\$47,520	\$0	\$0	\$0	\$0	\$0	\$0	45%	23%	
1983	30	Calif. - San Diego (Integrated Circuits)	\$867,000	\$13,000	\$880,000	\$629,000	\$1,509,000	\$0	\$0	\$3,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	57%	0%	
	31	Ga. Tech./Arizona (Information Mgmt.)	\$2,390,614	\$180,158	\$2,570,772	\$120,000	\$2,690,772	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	40%	0%	
	32	Washington State (Integrated Circuits)	\$315,000	\$0	\$315,000	\$221,200	\$536,200	\$0	\$0	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	0%	
	33	Univ. of Illinois (Air Conditioning)	\$321,167	\$61,333	\$382,500	\$128,250	\$510,750	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	48%	0%	
	34	Univ. of Michigan (Dimensional Measurem)	\$771,755	\$5,000	\$776,755	\$56,400	\$833,155	\$550,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	47%	0%	
	35	Eastern Michigan/North Dakota State (Co)	\$604,046	\$43,454	\$647,500	\$155,321	\$802,821	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	43%	5%	
	36	Univ. of North Texas (Nanostucture)	\$400,069	\$10,562	\$410,631	\$65,500	\$474,131	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	59%	10%	
	37	Univ. of Colorado (Thin Film)	\$245,046	\$295,149	\$540,195	\$65,069	\$605,264	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	47%	10%	
	38	Univ. of Colorado (Thin Film)	\$1,435,063	\$65,067	\$1,500,130	\$0	\$1,500,130	\$0	\$0	\$0	\$825	\$0	\$0	\$0	\$0	\$0	\$0	59%	0%	
	39	Light (Polymer Interfaces)	\$420,000	\$0	\$420,000	\$0	\$420,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	0%	
1982	40	NCSU (Pest Management)	\$513,187	\$51,047	\$564,234	\$0	\$564,234	\$333,025	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	61%	61%	
	41	Rutgers (Wireless Information)	\$393,300	\$0	\$393,300	\$0	\$393,300	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0%	0%	
	42	Villanova (Advanced Communication)	\$739,687	\$39,977	\$779,664	\$119,895	\$899,559	\$73,585	\$16,735	\$9,589	\$30,000	\$0	\$0	\$0	\$0	\$0	\$0	38%	7%	
	43	Carnegie-Mellon (Building Performance)	\$528,000	\$23,000	\$551,000	\$133,000	\$684,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	44%	0%	
	44	Arizona St./West. Network (Health Mgmt.)	\$427,247	\$0	\$427,247	\$124,000	\$551,247	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	54%	32%	
	45	Ohio University (Corrosion)	\$512,000	\$138,000	\$650,000	\$71,760	\$721,760	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	20%	20%	
	46	Illinois (Machine-Tool Systems)	\$2,020,000	\$0	\$2,020,000	\$0	\$2,020,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	64%	64%	
	47	Mass. (Polymer Biodegradation)	\$263,856	\$25,446	\$289,302	\$52,800	\$342,102	\$1,200,000	\$0	\$0	\$1,000	\$0	\$0	\$0	\$0	\$0	\$0	46%	0%	
	48	NIIT (Emission Reduction)	\$350,000	\$175,000	\$525,000	\$0	\$525,000	\$0	\$0	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	63%	63%	
	49	Rhode Island (Ocean Technology)	\$560,000	\$0	\$560,000	\$130,000	\$690,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	52%	26%	
1981	50	Stanford (Composite Design)	\$665,872	\$51,921	\$717,793	\$73,080	\$790,873	\$171,439	\$0	\$0	\$5,714	\$1,571	\$0	\$0	\$0	\$0	\$0	49%	29%	
	51	CSM/ASTU (Energy & Power)	\$1,913,047	\$138,851	\$1,999,002	\$137,932	\$2,136,934	\$190,397	\$4,405	\$32,258	\$16,401	\$3,425	\$0	\$0	\$0	\$0	\$0	44%	20%	
	MEAN 3-YEAR BUDGET		\$48,626,262	\$6,664,851	\$56,791,113	\$6,758,665	\$63,549,778	\$9,329,464	\$215,825	\$1,580,660	\$803,643	\$167,842	\$0	\$0	\$0	\$0	\$0	N/A	N/A	
	GRAND TOTALS																			

1994
1993
1992
1991
1990
1989
1988
1987
1986
1985
1984
1983
1982
1981
1980
1979
1978
1977
1976
1975
1974
1973
1972
1971
1970
1969
1968
1967
1966
1965
1964
1963
1962
1961
1960
1959
1958
1957
1956
1955
1954
1953
1952
1951
1950
1949
1948
1947
1946
1945
1944
1943
1942
1941
1940
1939
1938
1937
1936
1935
1934
1933
1932
1931
1930
1929
1928
1927
1926
1925
1924
1923
1922
1921
1920
1919
1918
1917
1916
1915
1914
1913
1912
1911
1910
1909
1908
1907
1906
1905
1904
1903
1902
1901
1900

TABLE 4
1994-1995 INDUSTRY MEMBERSHIP DESCRIPTORS

STATUS	YEAR	ABBREVIATED NAME	CURRENT MEMBERS	1994 — 1995 MEMBERS			LIFETIME MEMBERS			FEES			
				STARTING	NEW	LEFT	STARTING	NEW	LEFT	ANNUAL MEMBERSHIP PRIMARY	MEMBER FEE SECONDARY	MEMBER FEE TERTIARY	
SELF-SUSTAINING	1980	1. Mass. (Polymers)	24	7	18	1	13	35	20	\$25,000	\$15,000	\$5,000	
	1981	2. Case Western (Polymers)	10	.	.	.	.	.	.	.	.	.
	1982	3. NCSU/Duke (Communication/Signal Proc.)	7	5	2	0	8	17	18	\$50,000	\$20,000	.	
			4. Rutgers (Ceramic)	14	15	0	1	10	32	28	\$35,000	.	.
			5. Georgia Tech. (Materials Handling)	14	11	3	0	.	5	0	\$50,000	.	.
			6. Penn. State (Dielectrics Studies)	12	15	0	3	18	24	29	\$20,000	\$5,000	.
	1984	7. Colorado School of Mines (Steel)	24	23	2	1	7	26	8	\$42,500	.	.	
			8. Washington (Process Analytical Chem.)	30	35	2	7	0	60	46	\$35,000	.	.
			9. NJIT (Hazardous Substance Mgmt.)	17	22	0	5	8	34	19	\$30,000	\$15,000	.
			10. Arizona (Optical Circuitry)
			11. Northwestern/Georgia Inst. of Tech. (Engineer)	16	12	5	1	14	10	12	\$27,500	.	.
			12. Arizona (Microcontamination)	19	19	2	2	26	20	32	\$40,000	\$10,000	.
			13. Northeastern (Electromagnetics)	9	9	0	0	9	6	9	\$50,000	\$25,000	.
			14. Lehigh (Chemical Process)	6	6	0	0	0	1	1	\$30,000	.	.
	1985	15. Carnegie Mellon (Iron & Steelmaking)	22	21	1	0	11	18	4	\$45,000	\$32,000	.	
			16. Lehigh (Innovation)	10	9	1	0	12	6	6	\$20,000	.	.
			17. Texas - Arlington (Adv. Electron Devices)	2	2	0	0	6	5	8	\$30,000	\$15,000	.
			18. Tennessee (Measurement & Control)	14	15	1	2	0	5	5	\$35,000	\$15,000	.
			19. Iowa State (Nondestructive Evaluation)	18	22	2	6	14	15	12	\$35,000	.	.
	1986	20. Oklahoma State (Web Handling)	17	17	1	1	5	20	7	\$25,000	.	.	
			21. Alfred (Glass)	25	25	1	1	8	21	5	\$30,000	.	.
			22. New Mexico Inst. (Energetic)	9	10	1	2	9	23	23	\$30,000	\$20,000	.
			23. Florida/Purdue (Software Eng.)	14	14	5	5	10	18	16	\$50,000	.	.
			24. UC Berkeley (Sensors & Actuators)	18	18	2	2	6	22	11	\$50,000	\$7,500	.
	1987	25. Iowa (Simulation & Design)	12	12	0	0	24	5	13	\$40,000	.	.	
			26. NCSU/ UC Davis (Aseptic Processing)	8	9	0	1	8	8	8	\$35,000	.	.
	1988	27. Colorado (Microwavc, Optical & Digital)	10	10	2	2	10	14	7	\$40,000	\$25,000	\$12,500	
			28. SUNY at Buffalo (Biosurfaces)	7	5	2	0	6	5	3	\$40,000	.	.
	1989	29. New Mexico (Micro-Engineered Ceramics)	15	12	4	1	8	15	2	\$30,000	\$10,000	.	
			30. Calif. - San Diego (Integrated Circuits)	6
			31. Ga. Tech./Arizona (Information Mgmt.)	3	4	0	1	6	5	7	\$40,000	.	.
			32. Washington State (Integrated Circuits)	12	12	1	1	11	11	6	\$30,000	.	.
		MEAN "SELF-SUSTAINING:"	14	14	2	2	9	17	13	\$35,862	\$16,500	N/A	
3 to 5 YEAR OLDS	1990	33. Univ. of Illinois (Air Conditioning)	17	18	2	3	13	11	7	\$40,000	.	.	
		34. Univ. of Connecticut (Grinding)	15	10	6	1	7	12	4	\$50,000	\$12,000	.	
		35. Univ. of Michigan (Dimensional Measuremen)	8	9	1	2	8	5	4	\$50,000	.	.	
	1991	36. Eastern Michigan/North Dakota State (Coatin)	9	8	2	1	11	8	4	\$30,000	.	.	
		37. Univ. of North Texas (Nanostructure)	5	6	1	2	4	5	4	\$30,000	.	.	
	1992	38. Univ. of Colorado (Thin Film)	11	12	0	1	8	4	4	\$40,000	.	.	
		39. Lehigh (Polymer Interfaces)	12	11	2	1	10	5	3	\$35,000	.	.	
		40. NCSU (Pest Management)	7	6	2	1	7	3	1	\$25,000	.	.	
		41. Rutgers (Wireless Information)	28	27	3	2	21	9	5	\$30,000	.	.	
		42. Villanova (Advanced Communication)	9	9	0	0	4	3	1	\$30,000	.	.	
	43. Carnegie-Mellon (Building Performance)	7	6	1	0	3	11	0	\$50,000	\$25,000	.		
	44. Arizona St./West. Network (Health Mgmt.)	9	9	1	1	6	5	2	\$35,000	\$15,000	.		
		MEAN "3 to 5 YEAR OLDS:"	11	11	2	1	9	7	3	\$37,083	\$17,333	N/A	
2 YEARS & LESS	1993	45. Ohio University (Corrosion)	16	14	2	0	4	9	2	\$23,000	\$15,000	.	
	1994	46. Illinois (Machine-Tool Systems)	6	6	1	1	0	1	1	\$50,000	\$20,000	.	
		47. Mass. (Polymer Biodegradation)	10	10	2	2	0	6	2	\$30,000	.	.	
		48. NJIT (Emission Reduction)	11	10	1	0	0	2	0	\$50,000	\$5,000	.	
		49. Rhode Island (Ocean Technology)	8	11	0	3	0	2	3	\$25,000	\$10,000	.	
		50. Stanford (Composite Design)	5	5	0	0	0	6	1	\$100,000	\$50,000	\$25,000	
		51. CSM/ASU (Energy & Power)	10	8	3	1	0	12	1	\$50,000	.	.	
		MEAN "2 YEARS & LESS:"	9	9	1	1	1	5	1	\$46,857	\$20,000	N/A	
		GRAND MEANS:	13	12	2	1	8	13	9	\$37,771	\$17,452	N/A	
		GRAND SUMS:	621	591	88	68	379	605	414	\$1,813,000	\$366,500	N/A	

TABLE 5
1994-1995 HUMAN RESOURCES

20

STATUS	YEAR	ABBREVIATED NAME	RESEARCHER BREAKDOWN				STUDENTS		ADMINISTRATIVE				
			TOTAL # RESEARCHERS	# FACULTY SCIENTISTS	NON-FACULTY		# OF GRADS	# OF UNDERGRAD	PROFESSIONALS		CLERICALS		
				FT	PT			FT	PT	FT	PT		
SELF-SUSTAINING	1980	1. Mass. (Polymers)	22	22	0	0	7	0	1	0	1	0	
	1981	2. Case Western (Polymers)	15	9	5	1	16	8	0	2	2	0	
	1982	3. NCSU/Duke (Communication/Signal Proc.)	18	15	3	0	31	0	3	0	2	0	
		4. Rutgers (Ceramic)	15	15	0	0	52	42	6	1	6	0	
	1984	5. Georgia Tech. (Materials Handling)	10	10	0	0	2	0	2	1	0	2	
		6. Penn. State (Dielectrics Studies)	11	6	1	4	5	0	0	2	0	1	
		7. Colorado School of Mines (Steel)	8	6	2	0	22	1	1	0	0	1	
		8. Washington (Process Analytical Chem.)	23	15	7	1	28	2	5	1	1	1	
		9. NJIT (Hazardous Substance Mgmt.)	47	45	2	0	52	10	3	0	2	0	
		10. Arizona (Optical Circuitry)	•	•	•	•	•	•	•	•	•	•	•
		11. Northwestern/Georgia Inst. of Tech. (Engin)	19	15	4	0	13	0	2	1	2	1	
		12. Arizona (Microcontamination)	10	8	0	2	7	1	0	1	1	0	
	1985	13. Northeastern (Electromagnetics)	19	15	4	0	20	4	5	0	0	2	
		14. Lehigh (Chemical Process)	7	5	2	0	12	2	1	0	1	0	
		15. Carnegie Mellon (Iron & Steelmaking)	7	5	2	0	12	10	1	0	1	0	
		16. Lehigh (Innovation)	14	12	2	0	2	1	0	2	1	1	
		17. Texas - Arlington (Adv. Electron Devices)	2	2	0	0	3	0	1	0	0	1	
		18. Tennessee (Measurement & Control)	13	10	0	3	14	3	1	0	2	1	
		19. Iowa State (Nondestructive Evaluation)	15	11	0	4	12	2	0	3	0	0	
		1986	20. Oklahoma State (Web Handling)	14	13	1	0	38	4	0	2	0	4
			21. Alfred (Glass)	21	18	0	3	11	2	2	1	1	1
			22. New Mexico Inst. (Energetic)	4	3	0	1	11	20	0	2	1	1
	1987	23. Florida/Purdue (Software Eng.)	6	5	1	0	5	2	1	0	1	0	
		24. UC Berkeley (Sensors & Actuators)	12	8	4	0	39	1	1	0	2	1	
		25. Iowa (Simulation & Design)	57	11	42	4	67	7	2	0	3	0	
		26. NCSU/ UC Davis (Aseptic Processing)	17	16	1	0	24	13	0	3	0	1	
	1988	27. Colorado (Microwave, Optical & Digital)	13	9	2	2	13	1	1	2	0	2	
		28. SUNY at Buffalo (Biosurfaces)	34	22	6	6	8	6	2	3	0	2	
	1989	29. New Mexico (Micro-Engineered Ceramics)	26	11	13	2	24	4	1	1	2	1	
		30. Calif. - San Diego (Integrated Circuits)	•	•	•	•	•	•	•	•	•	•	
		31. Ga. Tech./Arizona (Information Mgmt.)	5	4	1	0	5	0	1	0	0	1	
		32. Washington State (Integrated Circuits)	13	13	0	0	44	6	0	5	1	3	
		MEAN "SELF-SUSTAINING:"	16.6	12.0	3.5	1.1	20.0	5.1	1.4	1.1	1.1	0.9	
3 to 5 YEAR OLDS	1990	33. Univ. of Illinois (Air Conditioning)	15	14	1	0	40	18	0	1	1	0	
		34. Univ. of Connecticut (Grinding)	22	14	7	1	14	2	4	3	0	2	
		35. Univ. of Michigan (Dimensional Measureme)	13	6	3	4	8	2	1	2	1	0	
	1991	36. Eastern Michigan/North Dakota State (Coat)	6	4	1	1	3	3	0	1	0	1	
		37. Univ. of North Texas (Nanostructure)	12	8	2	2	2	5	0	5	1	0	
	1992	38. Univ. of Colorado (Thin Film)	13	12	1	0	15	3	2	0	1	2	
		39. Lehigh (Polymer Interfaces)	24	16	3	5	13	1	0	3	1	1	
		40. NCSU (Pest Management)	30	28	2	0	3	0	0	1	0	1	
		41. Rutgers (Wireless Information)	9	7	2	0	15	4	3	1	3	0	
		42. Villanova (Advanced Communication)	16	16	0	0	15	9	1	0	0	0	
		43. Carnegie-Mellon (Building Performance)	7	5	2	0	10	5	1	1	2	0	
		44. Arizona St./West. Network (Health Mgmt.)	14	11	0	3	4	0	0	2	0	2	
	MEAN "3 to 5 YEAR OLDS:"	15.1	11.8	2.0	1.3	11.8	4.3	1.0	1.7	0.8	0.8		
2 YEARS & LESS	1993	45. Ohio University (Corrosion)	5	3	1	1	9	3	1	0	0	1	
	1994	46. Illinois (Machine-Tool Systems)	15	14	1	0	21	0	0	1	0	1	
		47. Mass. (Polymer Biodegradation)	11	5	6	0	15	2	2	1	0	1	
		48. NJIT (Emission Reduction)	27	25	1	1	28	1	1	0	1	0	
		49. Rhode Island (Ocean Technology)	4	3	1	0	4	0	1	0	0	1	
		50. Stanford (Composite Design)	3	2	0	1	5	0	1	0	0	1	
		51. CSM/ASU (Energy & Power)	9	8	1	0	10	2	2	0	1	0	
	MEAN "2 YEARS & LESS:"	10.6	8.6	1.6	0.4	13.1	1.1	1.1	0.3	0.3	0.7		
	GRAND MEANS:	15.3	11.4	2.9	1.1	17.0	4.3	1.3	1.1	0.9	0.9		
	GRAND SUMS:	752	560	140	52	833	212	62	55	45	42		

TABLE 6
1994-1995 CENTER DIRECTOR DESCRIPTORS

STATUS	YEAR	ABBREVIATED NAME	DIRECTOR'S RANK	DIRECTOR TENURE	DIRECTOR REPORTS TO	TIME ALLOCATION						
						CENTER ADMIN. (%)	OTHER ADMIN. (%)	RESEARCH (%)	TEACHING (%)	OTHER (%)	ADMIN. BUDGET (%)	
1989 1981 1982	1.	Mass. (Polymers)	Professor	•	V-Chancellor	100%	0%	0%	0%	0%	23%	
	2.	Case Western (Polymers)	Professor	Yes	Dean	30%	10%	40%	20%	0%	8%	
	3.	NCSU/Duke (Communication/Signal Proc.)	Professor	Yes	Dean	65%	15%	10%	10%	0%	18%	
	4.	Rutgers (Ceramic)	Professor	Yes	Director	25%	25%	25%	20%	0%	25%	
	5.	Georgia Tech. (Materials Handling)	Professor	Yes	Department Head	25%	0%	50%	25%	0%	20%	
	6.	Penn. State (Dielectrics Studies)	Associate Professor	No	Director	30%	10%	40%	20%	0%	20%	
	7.	Colorado School of Mines (Steel)	Professor	Yes	Dept. Head	20%	10%	30%	30%	10%	20%	
	8.	Washington (Process Analytical Chem.)	N/A	N/A	Chair	70%	0%	10%	10%	20%	13%	
	9.	MIT (Hazardous Substance Mgmt.)	Professor	Yes	V-Pres.	50%	40%	5%	0%	5%	18%	
	10.	Arizona (Optical Circuitry)	•	•	•	•	•	•	•	•	•	
1985 SUSTAINING	11.	Northwestern/Georgia Inst. of Tech. (Engine	Professor	Yes	Dean	18%	30%	25%	28%	0%	7%	
	12.	Arizona (Microcontamination)	Professor	Yes	Department Head	17%	17%	33%	33%	0%	25%	
	13.	Northeastern (Electromagnetics)	Professor	Yes	Dean	20%	20%	20%	20%	20%	20%	
	14.	Lehigh (Chemical Process)	Professor	Yes	Dean	30%	10%	30%	30%	0%	10%	
	15.	Carnegie Mellon (Iron & Steelmaking)	Professor	Yes	Dean	15%	15%	40%	20%	10%	12%	
	16.	Lehigh (Innovation)	Professor	Yes	Dean	25%	25%	40%	10%	0%	55%	
	17.	Texas - Arlington (Adv. Electron Devices)	N/A	Yes	Chair	34%	0%	34%	33%	0%	12%	
	18.	Tennessee (Measurement & Control)	N/A	N/A	Dean	80%	10%	0%	10%	0%	18%	
	19.	Iowa State (Nondestructive Evaluation)	Professor	Yes	Director	15%	65%	5%	5%	10%	15%	
	20.	Oklahoma State (Web Handling)	Professor	Yes	Provost	15%	70%	15%	0%	0%	5%	
1986	21.	Alfred (Glass)	Professor	Yes	Dean	40%	20%	20%	20%	0%	20%	
	22.	New Mexico Inst. (Energetic)	Professor	Yes	Dean	40%	20%	30%	20%	20%	20%	
	23.	Florida/Purdue (Software Eng.)	Professor	Yes	Director	20%	10%	30%	20%	20%	20%	
	24.	UC Berkeley (Sensors & Actuators)	Professor	Yes	Dean	25%	0%	21%	40%	15%	25%	
	25.	Iowa (Simulation & Design)	Professor	Yes	Chair	40%	0%	50%	10%	0%	80%	
	26.	NCSU/ UC Davis (Aseptic Processing)	Professor	Yes	Dean	15%	35%	25%	25%	0%	10%	
	27.	Colorado (Microwave, Optical & Digital)	Professor	No	Dean	20%	15%	40%	25%	0%	12%	
	28.	SUNY at Buffalo (Biosurfaces)	Professor	Yes	Vice President	20%	5%	40%	30%	5%	13%	
	29.	New Mexico (Micro-Engineered Ceramics)	Professor	Yes	Provost	35%	5%	30%	30%	0%	36%	
	1989	30.	Calif. - San Diego (Integrated Circuits)	•	•	•	•	•	•	•	•	•
31.		Ga. Tech./Arizona (Information Mgmt.)	Principal Researcher	No	Dean	20%	30%	10%	40%	0%	30%	
32.		Washington State (Integrated Circuits)	Professor	Yes	Dean	35%	50%	0%	15%	0%	15%	
MEAN 3 YEAR SUSTAINING**						32%	18%	25%	20%	5%	20%	
1988		33.	Univ. of Illinois (Air Conditioning)	Professor	Yes	Head	20%	0%	30%	30%	20%	8%
		34.	Univ. of Connecticut (Grinding)	Professor	Yes	Dean	20%	20%	20%	0%	40%	20%
		35.	Univ. of Michigan (Dimensional Measurement)	Associate Professor	No	Dean	25%	25%	20%	25%	0%	10%
		36.	Eastern Michigan/North Dakota State (Coatit	Professor	Yes	Director	33%	0%	67%	0%	0%	5%
		37.	Univ. of North Texas (Nanostucture)	Professor	•	V-Pres	20%	10%	50%	20%	0%	8%
		38.	Univ. of Colorado (Thin Film)	Professor	No	Provost	10%	15%	35%	35%	5%	21%
	39.	Lehigh (Polymer Interfaces)	Professor	Yes	Vice Provost	20%	20%	40%	20%	0%	•	
	40.	NCSU (Pest Management)	Professor	Yes	NCARS Director	50%	0%	38%	12%	0%	15%	
	41.	Rutgers (Wireless Information)	Professor	Yes	Dean	40%	0%	20%	40%	0%	26%	
	42.	Villanova (Advanced Communication)	Staff	•	Dean	25%	25%	25%	0%	25%	16%	
1992	43.	Carnegie-Mellon (Building Performance)	Staff	•	Dean	10%	0%	20%	70%	0%	15%	
	44.	Arizona St./West. Network (Health Mgmt.)	Professor	Yes	Associate Dean	25%	0%	40%	35%	0%	22%	
	MEAN 3 YEAR OLDS**						25%	10%	34%	24%	8%	15%
	1993 1994	45.	Ohio University (Corrosion)	N/A	N/A	N/A	25%	10%	27%	16%	11%	15%
		46.	Illinois (Machine-Tool Systems)	Professor	Yes	Dean	50%	0%	20%	30%	0%	10%
		47.	Mass. (Polymer Biodegradation)	Professor	Yes	Dean	10%	10%	40%	40%	0%	15%
		48.	MIT (Emission Reduction)	Professor	Yes	Provost	20%	0%	30%	20%	0%	10%
		49.	Rhode Island (Ocean Technology)	Staff	No	Vice Provost	40%	55%	0%	0%	15%	15%
		50.	Stanford (Composite Design)	Staff	No	Chair	40%	0%	50%	0%	10%	20%
		51.	CSM/ASU (Energy & Power)	Full Professor	Yes	bean/Vice President	20%	10%	30%	20%	20%	20%
MEAN 7 YEARS & LESS**						30%	16%	27%	16%	11%	15%	
GRAND MEANS:						30%	16%	28%	20%	6%	18%	
GRAND SUMS:						N/A	N/A	N/A	N/A	N/A	N/A	

TABLE 7

1994-1995 INTELLECTUAL PROPERTY EVENTS

TABLE 7a Centers Reporting One or More Intellectual Property Events		
INTELLECTUAL PROPERTY EVENT	NUMBER of CENTERS	PERCENTAGE of CENTERS
INVENTION DISCLOSURES	21	43%
PATENT APPLICATIONS	17	35%
SOFTWARE COPYRIGHTS	11	22%
PATENTS GRANTED	11	22%
LICENSING AGREEMENTS	6	12%
ROYALTIES REALIZED	2	4%

TABLE 7b Total Number of Intellectual Property Events	
INTELLECTUAL PROPERTY EVENT	TOTALS for ALL CENTERS
INVENTION DISCLOSURES	66
PATENT APPLICATIONS	30
SOFTWARE COPYRIGHTS	11
PATENTS GRANTED	18
LICENSING AGREEMENTS	6
ROYALTIES REALIZED	2

APPENDIX

FOOTNOTES: SPECIAL CONSIDERATIONS

Footnotes appear on top of columns and/or at end of rows for each Table and are described in this Appendix.

- 1) All averages and sums exclude missing data. With the exception of percentages, data from multi-university centers has been aggregated across universities; percentages represent averages for the reporting universities.
- 2) This report only includes data on Centers which were considered active participants in the NSF IUCRC Program during the past fiscal year. Self-sustaining Centers which are no longer affiliated with the IUCRC program are not included.
- 3) Authors' address: IUCRC Evaluation Project, Psychology Department, NCSU Box 7801, Raleigh, NC 27695.
By telephone: Voice (919) 515-3237; FAX (919) 515-1716.
- 4) On Tables 1 through 6, a bullet (•) indicates missing data due to non-response.
- 5) On Tables 2 and 3, direct funding does not include overhead and may underestimate actual dollars.
- 6) On Tables 2 and 3, "TOTAL DIRECT" refers to the sum of all direct funding, including: NSF, Industry Member Fees, Other Industry, State, Other, and University Direct funding.
- 7) On Table 2, "NSF FUNDING" refers to support provided by the IUCRC Program. This includes operating grants, self-sustaining center funding, evaluator supplements, TIE awards, RUI/PI awards, etc. This Does NOT include support provided by other NSF groups or divisions.
- 8) On Table 2, "INDUSTRIAL MEMBERSHIP FEES" refers to support from industry derived from membership fees.
- 9) On Table 2, "OTHER INDUSTRY" refers to any additional support for operations provided by industrial members (e.g., enhancements, contracts, donations, etc.).
- 10) On Table 2, "STATE" refers to the support provided by state government and/or an agency or program funded by state government.
- 11) On Table 2, "OTHER" refers to support for Center operations provided by other funding sources, including other divisions in NSF, federal agencies, foundations, national labs, military agencies, etc.
- 12) On Table 2, "UNIVERSITY DIRECT" refers to actual support for Center operating costs, including: salary, travel, etc. This figure does include overhead returned to Center. However, it does NOT include cost of items like utilities or space, which universities are obligated to provide for all grants.
- 13) On Table 3, "OVERHEAD CHARGES" refers to the sum of all overhead, including: NSF, Industry Member Fees, Other Industry, State, and Other.
- 14) On Table 3, "TOTAL BUDGET" refers to the sum of DIRECT FUNDING and OVERHEAD CHARGES. Because one Center provided the total budget but failed to provide direct and indirect breakdowns the grand sums of Columns A + B will not equal Column C.
- 15) On Table 3, "UNIVERSITY-WAIVED OVERHEAD" refers to the amount of overhead the university has waived by reducing its normal overhead rate.
- 16) On Table 3, "EFFECTIVE BUDGET" refers to the value of the center's budget if full overhead were collected.
- 17) On Table 3, "CAPITAL TOTAL FUNDING" includes major capital investments/expenses (e.g., equipment, buildings, building renovations, etc.) over \$25,000. Funding for a building should have been reported when the building was occupied.
- 18) On Table 3, "IN KIND SUPPORT" refers to additional equipment or personnel contributions not reflected in operating budget figures.
- 19) On Table 4, "FEES" are broken down into primary, secondary, and tertiary (the latter two represent variable membership fees).
- 20) On Table 5, "FT" means "Full-time" and "PT" means "Part-time."
- 21) On Table 6, "TIME ALLOCATION" refers to allocation of director's full-time equivalent for budgetary purposes.
- 22) On Table 6, "ADMIN. BUDGET (%)" refers to the estimated percentage of direct operating budget allocated to administrative salaries, center supplies, telephone, travel and related costs.