



NATIONAL SCIENCE FOUNDATION  
INDUSTRY/UNIVERSITY COOPERATIVE RESEARCH CENTERS

# FINAL Report

## *2006-2007 STRUCTURAL INFORMATION<sup>1</sup>*

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<sup>1</sup>**NOTE:** 2006-2007 data collected from 34/34 Center Director Surveys (100% response rate).

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**Table 1: 2006-2007 GENERAL CENTER INFORMATION\* (Sorted Chronologically)**

<i>Yr Funded:</i>	<i>Center Name</i>	<i>University Name: Director</i>	<i>Partner University 1 Director</i>	<i>Partner University 2 Director</i>	<i>Partner University 3 Director</i>	<i>Partner University 4 Director</i>
1985*	Nondestructive Evaluation	Iowa State Univ. Thompson				
1986*	Berkeley Sensor & Actuator Center	Univ. of California, Berkeley Huggins	Univ. of California, Davis Horsley			
1988	Composite & Ceramic Materials	Rutgers Univ. Haber	Univ. of New Mexico Atanassov		Pennsylvania State Univ. Adair	
1998*	Advanced Studies in Novel Surfactants	Columbia Univ. Somasundaran				
1998*	Information Technology and Organizations	Univ. of California, Irvine Gurbaxani				
1998*	Precision Metrology	Univ. of North Carolina, Charlotte Hocken				
1998*	Silicon Wafer Engineering and Defect Science	North Carolina State Univ. Duscher	Univ. of California, Berkeley Weber			
1999	Advanced Vehicle Electronics	Auburn Univ. Suhling				
1999	Repair of Buildings and Bridges with Composites	Univ. of Miami Nanni	North Carolina State Univ. Rizkalla			
1999	Water Quality	Univ. of Arizona Pepper	Arizona State Univ. Abbaszaddegan			
1999*	Tree Genetics Research (Advanced Forestry)	Purdue Univ. Michler	Oregon State Univ. Strauss			
2000	Biocatalysis & Bioprocessing of Macromolecules	Polytechnic Univ. of New York Gross				
2001	Biomolecular Interaction Technologies	Univ. of New Hampshire Laue				
2001	Dielectric Studies	Pennsylvania State Univ. Randall	Univ. of Missouri-Rolla Dogan			
2001	Intelligent Maintenance Systems	Univ. of Cincinnati Lee	Univ. of Michigan Ni		Univ. of Missouri-Rolla Sarangapani	
2001	Membrane Applied Science and Technology	Univ. of Colorado at Boulder Greenberg	Univ. of Cincinnati Clarson			
2002	Compact High-Performance Cooling Technologies	Purdue Univ. Garimella				
2002	Engineering Logistics and Distribution**	Univ. of Arkansas Meller	Clemson Univ. Ferrell	Lehigh Univ. Zimmers	Oklahoma State Univ. Ingalls	Texas Tech Univ. Matis
2002	Identification Technology Research	West Virginia Univ. Hornak/Cukic	Univ. of Arizona Burgoon/Nunamaker			
2002	Plasmas & Lasers in Advanced Manufacturing	Univ. of Virginia Gupta	Univ. of Michigan Mazumder		Southern Methodist Univ. Radovan	
2003	Communications Circuits & Systems	Arizona State Univ. Kiaei	Rensselaer Polytechnic Institute Shur	Ohio State Univ. Volakis	Univ. of Arizona Rodriguez	Univ. of Hawaii Iskander
2003	E-Design	Virginia Tech Terpenny	Univ. of Massachusetts Grosse	Univ. of Central Florida Geiger / Crumpton-Young	Univ. of Pittsburgh Lovell	

\* Report sorted by Status, Organized by Year Funded; \* = Last year funded by NSF

\*\*Additional Universities and Directors for the Center for Engineering Logistics and Distribution are: Univ. of Louisville (Heragu) and Univ. of Oklahoma (Pulat)

\*\*\* The University of Akron is an affiliated site with Multiphase Transport Phenomena.

IUCRC Structure Database, FY 2006-2007

<i>Yr Funded:</i>	<i>Center Name</i>	<i>University Name: Director</i>	<i>Partner University 1 Director</i>	<i>Partner University 2 Director</i>	<i>Partner University 3 Director</i>	<i>Partner University 4 Director</i>
2003	Experimental Research in Computer Systems	Georgia Tech University Schwan	Ohio State Univ. Ramanathan			
2003	Fuel Cell Center	Univ. of South Carolina Van Zee				
2004	Friction Stir Processing	South Dakota School of Mines and Tech Arbegast	Univ. South Carolina Reynolds	Brigham Young Univ. Nelson	Univ. of Missouri- Rolla Mishra	Wichita State Univ. Burford
2004	Multiphase Transport Phenomena***	Michigan State Univ. Petty	Univ. of Tulsa Mohan	Univ. of Central Florida Kumar		
2004	Safety, Security, Rescue Research Center	Univ. of Minnesota Papanikolopoulos				
2004	Wireless Internet Center for Advanced Technology	Polytechnic Univ. of New York Goodman	Columbia Univ. Misra	Univ. of Virginia Horowitz	Auburn Univ. Agrawal	
2005	Childrens Injury Prevention Science	Children's Hospital of Philadelphia Winston				
2005	Computational Materials Design	Pennsylvania State Univ. Liu	Georgia Institute of Tech. McDowell			
2005	Information Protection	Iowa State Univ. Jacobson				
2006	Center for High-Performance Reconfigurable Computin	Univ. of Florida George	George Washington Univ. El-Ghazawi			
2006	Center for Minimally Invasive Medical Technologies	Univ. of Minnesota Erdman	Univ. of Cincinnati Haridis			
2006	Precision Forming	Ohio State Univ. Altan	The Virginia Commonwealth Univ. Koc			
<b>New</b>						
2007	Smart Vehicle Concepts	Ohio State Univ. Singh				
2008	Advanced Forestry	North Carolina State Univ. Goldfarb	Purdue Univ. Michler	Oregon State Univ. Strauss		
2008	Autonomics	Univ. of Florida Fortes	Rutgers Univ.	Univ. of Arizona		

\* Report sorted by Status, Organized by Year Funded; \* = Last year funded by NSF

\*\*Additional Universities and Directors for the Center for Engineering Logistics and Distribution are: Univ. of Louisville (Heragu) and Univ. of Oklahoma (Pulat)

\*\*\* The University of Akron is an affiliated site with Multiphase Transport Phenomena.

IUCRC Structure Database, FY 2006-2007

**Table 2: 2006-2007 OPERATING BUDGET AND TOTAL FUNDING**

Center Name	Total <sup>4</sup> Funding	NSF <sup>5</sup>		INDUSTRY		State <sup>8</sup>	University <sup>9</sup>	OTHER <sup>10</sup>		
		NSF/ IUCRC	Other NSF	Member <sup>6</sup> Fees	Addl <sup>7</sup> Industry			Other <sup>11</sup> Federal	Non- <sup>12</sup> Federal	Other Cash
Advanced Studies in Novel Surfactants	\$673,000	\$93,000	\$0	\$275,000	\$305,000	\$0	\$0	\$0	\$0	\$0
Advanced Vehicle Electronics	\$4,226,313	\$213,000	\$60,000	\$1,450,967	\$0	\$0	\$362,742	\$0	\$0	\$2,139,604
Berkeley Sensor & Actuator Center	\$8,900,212	\$233,000	\$0	\$1,810,081	\$2,162,561	\$0	\$0	\$4,667,632	\$26,938	\$0
Biocatalysis & Bioprocessing of Macromolecules	\$1,920,000	\$100,000	\$0	\$470,000	\$0	\$0	\$150,000	\$1,200,000	\$0	\$0
Biomolecular Interaction Technologies	\$185,000	\$85,000	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0
Center for High-Performance Reconfigurable Computi	\$2,017,337	\$306,000	\$0	\$798,004	\$0	\$0	\$563,333	\$350,000	\$0	\$0
Center for Minimally Invasive Medical Technologies	\$696,904	\$259,404	\$0	\$350,000	\$0	\$0	\$87,500	\$0	\$0	\$0
Childrens Injury Prevention Science	\$527,000	\$102,000	\$0	\$425,000	\$0	\$0	\$0	\$0	\$0	\$0
Communications Circuits & Systems	\$2,932,500	\$550,000	\$90,000	\$947,000	\$235,000	\$522,000	\$388,500	\$170,000	\$30,000	\$0
Compact High-Performance Cooling Technologies	\$1,940,000	\$135,000	\$0	\$450,000	\$200,000	\$1,000,000	\$155,000	\$0	\$0	\$0
Composite & Ceramic Materials	\$5,623,067	\$158,000	\$749,750	\$800,000	\$600,260	\$88,100	\$798,956	\$2,310,910	\$117,091	\$0
Computational Materials Design	\$619,935	\$257,000	\$0	\$341,060	\$0	\$0	\$21,875	\$0	\$0	\$0
Dielectric Studies	\$2,400,250	\$140,000	\$80,000	\$595,250	\$0	\$100,000	\$135,000	\$1,350,000	\$0	\$0
E-Design	\$1,399,843	\$330,955	\$479,000	\$379,000	\$0	\$0	\$210,888	\$0	\$0	\$0
Engineering Logistics and Distribution	\$2,841,898	\$592,000	\$0	\$1,635,000	\$442,398	\$90,000	\$82,500	\$0	\$0	\$0
Experimental Research in Computer Systems	\$575,702	\$0	\$0	\$575,702	\$0	\$0	\$0	\$0	\$0	\$0
Friction Stir Processing	\$1,565,500	\$492,000	\$0	\$825,000	\$0	\$0	\$248,500	\$0	\$0	\$0
Fuel Cell Center	\$1,158,348	\$220,000	\$0	\$472,500	\$0	\$0	\$465,848	\$0	\$0	\$0
Identification Technology Research	\$1,892,889	\$168,000	\$602,616	\$583,273	\$0	\$89,000	\$5,000	\$100,000	\$0	\$345,000
Information Protection	\$216,000	\$60,000	\$0	\$156,000	\$0	\$0	\$0	\$0	\$0	\$0
Information Technology and Organizations	\$113,000	\$0	\$0	\$113,000	\$0	\$0	\$0	\$0	\$0	\$0
Intelligent Maintenance Systems	\$2,079,432	\$252,753	\$295,998	\$1,183,000	\$201,003	\$0	\$0	\$146,678	\$0	\$0
Membrane Applied Science and Technology	\$1,000,180	\$128,000	\$0	\$700,000	\$180	\$0	\$172,000	\$0	\$0	\$0
Multiphase Transport Phenomena	\$550,700	\$160,000	\$0	\$240,000	\$15,700	\$0	\$135,000	\$0	\$0	\$0
Nondestructive Evaluation	\$5,773,979	\$171,950	\$89,847	\$420,000	\$0	\$429,023	\$149,929	\$3,848,095	\$161,629	\$503,506
Plasmas & Lasers in Advanced Manufacturing	\$1,204,600	\$130,000	\$0	\$370,000	\$0	\$0	\$134,600	\$570,000	\$0	\$0
Precision Forming	\$1,317,500	\$302,500	\$310,000	\$305,000	\$0	\$0	\$400,000	\$0	\$0	\$0
Precision Metrology	\$530,000	\$100,000	\$0	\$330,000	\$0	\$0	\$100,000	\$0	\$0	\$0
Repair of Buildings and Bridges with Composites	\$675,133	\$150,000	\$0	\$426,800	\$98,333	\$0	\$0	\$0	\$0	\$0
Safety, Security, Rescue Research Center	\$222,709	\$60,000	\$0	\$150,000	\$0	\$0	\$12,709	\$0	\$0	\$0
Silicon Wafer Engineering and Defect Science	\$483,000	\$83,000	\$0	\$400,000	\$0	\$0	\$0	\$0	\$0	\$0
Tree Genetics Research (Advanced Forestry)	\$4,248,000	\$12,000	\$0	\$475,000	\$0	\$0	\$506,000	\$2,582,000	\$580,000	\$93,000
Water Quality	\$4,448,899	\$423,000	\$30,000	\$923,600	\$2,194,335	\$760,964	\$117,000	\$0	\$0	\$0
Wireless Internet Center for Advanced Technology	\$1,937,825	\$336,000	\$617,981	\$560,000	\$0	\$0	\$161,844	\$110,000	\$0	\$152,000
<b>Grand Mean</b>	\$1,967,549	\$200,105	\$100,153	\$589,272	\$189,846	\$90,561	\$163,668	\$511,921	\$26,931	\$95,091
<b>Grand Sum</b>	\$66,896,655	\$6,803,562	\$3,405,192	\$20,035,237	\$6,454,770	\$3,079,087	\$5,564,724	\$17,405,315	\$915,658	\$3,233,110

\* Report sorted Alphabetically by Center

IUCRC Structure Database, FY 2006-2007

**Table 3: 2006-2007 CAPITAL AND IN-KIND SUPPORT**

CenterName	Capital and In-Kind Support <sup>13</sup>							Overhead	Budget	
	Total Funding	Total Cap In-Kind	Equipment	Facilities	Personnel	Software	Other Support	% to Mem <sup>14</sup>	Typical <sup>15</sup>	Admin <sup>16</sup>
Advanced Studies in Novel Surfactants	\$673,000	\$27,407	\$27,407	\$0	\$0	\$0	\$0	0	0	7
Advanced Vehicle Electronics	\$4,226,313	\$510,000	\$500,000	\$0	\$0	\$10,000	\$0	46	46	5
Berkeley Sensor & Actuator Center	\$8,900,212	\$125,000	\$100,000	\$0	\$0	\$0	\$25,000	15	53	7
Biocatalysis & Bioprocessing of Macromolecules	\$1,920,000	\$0	\$0	\$0	\$0	\$0	\$0	10	62	0
Biomolecular Interaction Technologies	\$185,000	\$0	\$0	\$0	\$0	\$0	\$0	0	0	0
Center for High-Performance Reconfigurable Computin	\$2,017,337	\$358,500	\$358,500	\$0	\$0	\$0	\$0	0	47	6
Center for Minimally Invasive Medical Technologies	\$696,904	\$37,584	\$0	\$0	\$37,584	\$0	\$0	0	0	0
Childrens Injury Prevention Science	\$527,000	\$50,400	\$4,200	\$0	\$0	\$0	\$46,200	0	65	12
Communications Circuits & Systems	\$2,932,500	\$10,599,000	\$5,084,000	\$4,000,000	\$15,000	\$1,500,000	\$0	10	51	2
Compact High-Performance Cooling Technologies	\$1,940,000	\$0	\$0	\$0	\$0	\$0	\$0	0	53	5
Composite & Ceramic Materials	\$5,623,067	\$6,675,000	\$1,500,000	\$5,100,000	\$75,000	\$0	\$0	0	52	20
Computational Materials Design	\$619,935	\$16,000	\$0	\$0	\$16,000	\$0	\$0	25	0	0
Dielectric Studies	\$2,400,250	\$125,000	\$50,000	\$0	\$75,000	\$0	\$0	0	48	20
E-Design	\$1,399,843	\$567,250	\$0	\$0	\$0	\$567,250	\$0	17	49	0
Engineering Logistics and Distribution	\$2,841,898	\$45,000	\$0	\$0	\$40,000	\$0	\$5,000	16	46	10
Experimental Research in Computer Systems	\$575,702	\$232,286	\$232,286	\$0	\$0	\$0	\$0	0	0	0
Friction Stir Processing	\$1,565,500	\$122,500	\$35,000	\$25,000	\$0	\$0	\$62,500	0	38	5
Fuel Cell Center	\$1,158,348	\$0	\$0	\$0	\$0	\$0	\$0	0	0	0
Identification Technology Research	\$1,892,889	\$0	\$0	\$0	\$0	\$0	\$0	0	47	10
Information Protection	\$216,000	\$0	\$0	\$0	\$0	\$0	\$0	8	0	0
Information Technology and Organizations	\$113,000	\$75,000	\$0	\$0	\$75,000	\$0	\$0	5	0	25
Intelligent Maintenance Systems	\$2,079,432	\$45,000	\$0	\$0	\$25,000	\$20,000	\$0	0	56	10
Membrane Applied Science and Technology	\$1,000,180	\$0	\$0	\$0	\$0	\$0	\$0	6	51	19
Multiphase Transport Phenomena	\$550,700	\$60,000	\$0	\$0	\$0	\$40,000	\$20,000	50	0	50
Nondestructive Evaluation	\$5,773,979	\$0	\$0	\$0	\$0	\$0	\$0	0	47	14
Plasmas & Lasers in Advanced Manufacturing	\$1,204,600	\$184,608	\$148,608	\$15,000	\$18,000	\$3,000	\$0	0	0	20
Precision Forming**	\$1,317,500	\$650,000	\$230,000	\$60,000	\$30,000	\$330,000	\$0	11	11	5
Precision Metrology	\$530,000	\$260,000	\$0	\$0	\$260,000	\$0	\$0	0	43	0
Repair of Buildings and Bridges with Composites	\$675,133	\$0	\$0	\$0	\$0	\$0	\$0	0	0	0
Safety, Security, Rescue Research Center	\$222,709	\$50,000	\$50,000	\$0	\$0	\$0	\$0	50	50	10
Silicon Wafer Engineering and Defect Science	\$483,000	\$0	\$0	\$0	\$0	\$0	\$0	10	10	18
Tree Genetics Research (Advanced Forestry)	\$4,248,000	\$38,000	\$5,000	\$25,000	\$8,000	\$0	\$0	0	0	0
Water Quality	\$4,448,899	\$160,000	\$50,000	\$0	\$110,000	\$0	\$0	0	0	0
Wireless Internet Center for Advanced Technology	\$1,937,825	\$0	\$0	\$0	\$0	\$0	\$0	10	71	20
<b>Grand Mean</b>	\$1,967,549	\$618,045	\$246,324	\$271,324	\$23,076	\$72,654	\$4,668	8.50	29.29	8.82
<b>Grand Sum</b>	\$66,896,655	\$21,013,535	\$8,375,001	\$9,225,000	\$784,584	\$2,470,250	\$158,700	N/A	N/A	N/A

\* Report sorted Alphabetically by Center

\*\* Precision Forming tertiary IAB member fees are paid as in-kind support that ranges in value from \$30K to \$300K

**Table 4: 2006-2007 INDUSTRY MEMBERSHIP DESCRIPTORS**

<i>CenterName</i>	<b>2006-2007 MEMBERS</b>				<b>LIFETIME MEMBERS</b>			<b>ANNUAL FEES</b>		
	<i>Current Members</i>	<i>Starting</i>	<i>New</i>	<i>Left</i>	<i>Life Starting</i>	<i>Life New</i>	<i>Life Left</i>	<i>Primary</i>	<i>Secondary</i>	<i>Tertiary</i>
Advanced Studies in Novel Surfactants	14	11	5	2	15	21	22	\$25,000	\$0	\$0
Advanced Vehicle Electronics	19	18	5	4	11	25	16	\$75,000	\$37,500	\$25,000
Berkeley Sensor & Actuator Center	47	40	11	4	6	78	37	\$50,000	\$0	\$0
Biocatalysis & Bioprocessing of Macromolecules	10	8	2	0	7	8	3	\$50,000	\$0	\$0
Biomolecular Interaction Technologies	12	11	1	0	8	11	7	\$30,000	\$0	\$0
Center for High-Performance Reconfigurable Computin	21	0	21	0	21	21	0	\$35,000	\$0	\$0
Center for Minimally Invasive Medical Technologies	7	0	7	0	7	7	0	\$50,000	\$0	\$0
Childrens Injury Prevention Science	9	8	1	0	8	9	0	\$50,000	\$25,000	\$0
Communications Circuits & Systems	19	16	8	5	9	20	10	\$50,000	\$17,500	\$0
Compact High-Performance Cooling Technologies	16	17	2	3	14	10	8	\$30,000	\$0	\$0
Composite & Ceramic Materials	40	47	4	11	8	88	56	\$35,000	\$15,000	\$0
Computational Materials Design	10	10	0	0	10	10	0	\$39,000	\$15,000	\$0
Dielectric Studies	27	21	7	1	18	73	64	\$30,000	\$8,500	\$0
E-Design	30	25	7	2	9	30	9	\$30,000	\$0	\$0
Engineering Logistics and Distribution	32	28	11	7	29	37	34	\$50,000	\$25,000	\$5,000
Experimental Research in Computer Systems	14	9	5	0	8	14	0	\$45,000	\$5,000	\$0
Friction Stir Processing	28	23	6	1	20	31	3	\$35,000	\$30,000	\$30,000
Fuel Cell Center	15	15	6	6	14	8	7	\$35,000	\$0	\$0
Identification Technology Research	19	10	10	1	8	21	10	\$40,000	\$0	\$0
Information Protection	7	11	2	6	11	13	6	\$30,000	\$15,000	\$0
Information Technology and Organizations	16	14	2	0	12	23	18	\$25,000	\$6,000	\$0
Intelligent Maintenance Systems	37	33	8	4	25	39	27	\$40,000	\$12,000	\$0
Membrane Applied Science and Technology	14	12	2	0	8	30	24	\$50,000		
Multiphase Transport Phenomena	6	6	0	0	6	6	0	\$30,000	\$0	\$0
Nondestructive Evaluation	13	12	1	0	14	39	40	\$35,000	\$0	\$0
Plasmas & Lasers in Advanced Manufacturing	17	13	5	1	9	16	8	\$30,000	\$10,000	\$0
Precision Forming**	18	0	18	0	18	18	0	\$30,000	\$15,000	\$0
Precision Metrology	12	11	2	1	15	14	17	\$30,000	\$0	\$0
Repair of Buildings and Bridges with Composites	18	16	8	6	9	30	21	\$50,000	\$25,000	\$5,000
Safety, Security, Rescue Research Center	10	15	2	7	7	16	14	\$35,000	\$10,000	\$0
Silicon Wafer Engineering and Defect Science	9	13	1	5	6	21	18	\$50,000	\$25,000	\$0
Tree Genetics Research (Advanced Forestry)	9	8	1	0	13	14	18	\$25,000	\$0	\$0
Water Quality	33	25	13	5	16	49	32	\$30,000	\$15,000	\$3,000
Wireless Internet Center for Advanced Technology	13	12	4	3	7	19	6	\$40,000	\$0	\$0
<i>Grand Mean</i>	18.26	15.24	5.53	2.50	11.94	25.56	15.74	\$38,647	\$17,306	\$13,600
<i>Grand Sum</i>	621	518	188	85	406	869	535			

\* Report sorted Alphabetically by Center

\*\* Precision Forming tertiary IAB member fees are paid as in-kind support that ranges in value from \$30K to \$300K

**Table 5: 2006-2007 HUMAN RESOURCES**

<i>Center Name</i>	<b>RESEARCHERS</b>				<b>STUDENTS</b>		
	<i>Faculty<sup>18</sup> Scientists</i>	<i>Administrative</i>	<i>Post Docs</i>	<i>Research Staff</i>	<i>PhD</i>	<i>Masters</i>	<i>Undergraduate</i>
Advanced Studies in Novel Surfactants	5	2	3	3	5	2	0
Advanced Vehicle Electronics	15	1	2	3	12	30	6
Berkeley Sensor & Actuator Center	11	2	19	3	107	0	0
Biocatalysis & Bioprocessing of Macromolecules	3	1	4	0	10	0	0
Biomolecular Interaction Technologies	8	2	0	1	3	0	1
Center for High-Performance Reconfigurable Computing	5	1	3	0	21	12	0
Center for Minimally Invasive Medical Technologies	7	2	1	0	5	6	0
Childrens Injury Prevention Science	12	1	2	2	1	1	14
Communications Circuits & Systems	35	5	9	5	51	37	2
Compact High-Performance Cooling Technologies	5	1	3	0	10	2	1
Composite & Ceramic Materials	41	8	7	5	33	3	29
Computational Materials Design	8	2	2	0	12	0	1
Dielectric Studies	22	2	3	3	8	1	2
E-Design	20	1	2	2	18	1	0
Engineering Logistics and Distribution	43	1	1	2	19	47	42
Experimental Research in Computer Systems	30	2	0	3	74	47	13
Friction Stir Processing	14	3	1	4	7	20	23
Fuel Cell Center	10	3	0	9	12	1	5
Identification Technology Research	17	3	2	5	18	12	6
Information Protection	6	2	0	0	7	5	1
Information Technology and Organizations	32	6	0	3	13	1	2
Intelligent Maintenance Systems	4	4	2	2	14	10	2
Membrane Applied Science and Technology	17	2	5	0	17	4	14
Multiphase Transport Phenomena	12	2	2	0	13	8	1
Nondestructive Evaluation	15	8	2	13	16	10	35
Plasmas & Lasers in Advanced Manufacturing	3	2	3	1	10	4	0
Precision Forming	1	1	5	0	6	4	2
Precision Metrology	23	1	0	3	9	6	0
Repair of Buildings and Bridges with Composites	8	2	0	3	5	10	0
Safety, Security, Rescue Research Center	4	0	0	1	4	4	0
Silicon Wafer Engineering and Defect Science	1	1	3	0	5	1	0
Tree Genetics Research (Advanced Forestry)	5	3	5	5	13	7	4
Water Quality	29	1	7	3	17	16	9
Wireless Internet Center for Advanced Technology	25	1	2	2	17	15	1
<i>Grand Mean</i>	14.59	2.32	2.94	2.53	17.41	9.62	6.35
<i>Grand Sum</i>	496	79	100	86	592	327	216

\* Report sorted Alphabetically by Center

**Table 6: 2006-2007 CENTER DIRECTOR DESCRIPTORS**

\*Includes only primary center director

CenterName	Rank	Tenure	Reports To	TIME ALLOCATION				
				Center Admin	Other Admin	Research	Teaching	Other
Advanced Studies in Novel Surfactants	Full Professor	Tenured	Dean	20	5	40	25	10
Advanced Vehicle Electronics	Full Professor	Tenured	Dean	25	10	40	15	10
Berkeley Sensor & Actuator Center	No academic rank	Non-tenure track	Department Chair	70	20	10	0	0
Biocatalysis & Bioprocessing of Macromolecules	Full Professor	Tenured	Provost	25	20	40	10	5
Biomolecular Interaction Technologies	Full Professor	Tenured	Dean	20	40	20	20	0
Center for High-Performance Reconfigurable Computing	Full Professor	Tenured	Department Chair	15	5	50	25	5
Center for Minimally Invasive Medical Technologies	Full Professor	Tenured	Department of Mechanical Engineering	4	16	50	20	10
Childrens Injury Prevention Science	Associate Professor	Tenured	Chief, Division of General Pediatrics	5	10	80	5	0
Communications Circuits & Systems	Full Professor	Tenured	Department Chair	25	25	20	10	20
Compact High-Performance Cooling Technologies	Full Professor	Tenured	Department Head	15	5	55	20	5
Composite & Ceramic Materials	Full Professor	Tenured	Vice President for Research	30	5	30	30	5
Computational Materials Design	Full Professor	Tenured	Department Head	20	5	50	20	5
Dielectric Studies	Full Professor	Tenured	Director of Materials Research Institute	20	5	30	30	15
E-Design	Associate Professor	Tenured	Dean for College of Engineering	15	15	30	30	10
Engineering Logistics and Distribution	Full Professor	Tenured	Department Head	25	10	30	35	0
Experimental Research in Computer Systems	Full Professor	Tenured	Vice President for Research	10	10	40	40	0
Friction Stir Processing	No academic rank	Non-tenure track	Vice President for Research	15	30	45	5	5
Fuel Cell Center	Full Professor	Tenured	Vice President of Research and Health Sci	15	0	50	25	10
Identification Technology Research	Full Professor	Tenured	VP for Rsrch & Econ. Dev.	25	20	30	20	5
Information Protection	Full Professor	Tenured	Vice Provost for Rsrch & Econ. Dev.	15	30	25	25	5
Information Technology and Organizations	Full Professor	Tenured	Director of CRITO	25	25	25	25	0
Intelligent Maintenance Systems	Full Professor	Tenured	Department Head	50	0	20	20	10
Membrane Applied Science and Technology	Full Professor	Tenured	Department Chair	15	15	50	20	0
Multiphase Transport Phenomena	Full Professor	Tenured	Department Chairperson	25	5	40	30	0
Nondestructive Evaluation	Full Professor	Tenured	Director, Inst. For Physical Rsrch & Tech	50	5	25	15	5
Plasmas & Lasers in Advanced Manufacturing	Full Professor	Tenure-track	Department Head	20	0	40	30	10
Precision Forming	Full Professor	Tenured	Dept. Chair	10	5	40	40	5
Precision Metrology	Full Professor	Tenured	Dean	20	10	40	30	0
Repair of Buildings and Bridges with Composites	Full Professor	Tenured	Dean	15	25	30	25	5
Safety, Security, Rescue Research Center	Full Professor	Tenured	Dean of the Institute of Technology	5	5	7	83	0
Silicon Wafer Engineering and Defect Science	Associate Professor	Tenured	Department Head	1	4	50	30	15
Tree Genetics Research (Advanced Forestry)	Associate Professor	Tenured	Department Head	25	40	25	0	10
Water Quality	Full Professor	Tenured	Dean	30	35	20	10	5
Wireless Internet Center for Advanced Technology	Full Professor	Tenured	Dean	20	10	20	50	0
<b>Grand Mean</b>				21.32	13.82	35.21	24.06	5.59



**Table 7: 2006-2007 CENTER OUTCOMES**

Center Name:	STUDENTS RECEIVING DEGREE 20			STUDENTS HIRED BY INDUSTRY21			PUBLICATIONS 22		
	BA Grad	MA Grad	PhD Grad	BA Hired	MA Hired	PhD Hired	w/ Ctr Research	w/ IAB Members	Presentations
Advanced Studies in Novel Surfactants	0	0	5	0	0	0	7	3	45
Advanced Vehicle Electronics	4	8	4	0	0	1	44	6	34
Berkeley Sensor & Actuator Center	0	3	18	0	0	5	73	0	210
Biocatalysis & Bioprocessing of Macromolecules	2	4	1	0	0	0	15	4	22
Biomolecular Interaction Technologies	0	0	1	0	0	0	1	0	3
Center for High-Performance Reconfigurable Computi	2	3	0	0	1	0	10	0	20
Center for Minimally Invasive Medical Technologies	0	0	0	0	0	0	0	0	0
Childrens Injury Prevention Science	5	0	0	0	0	0	1	0	12
Communications Circuits & Systems	52	7	20	3	3	5	56	16	103
Compact High-Performance Cooling Technologies	2	3	5	0	0	1	17	0	14
Composite & Ceramic Materials	0	3	7	4	2	6	45	27	90
Computational Materials Design	0	2	0	0	0	0	3	0	13
Dielectric Studies	4	1	5	0	0	0	24	2	35
E-Design	8	2	10	0	0	1	98	0	49
Engineering Logistics and Distribution	20	20	4	0	0	0	20	0	55
Experimental Research in Computer Systems	40	17	15	2	12	5	53	14	63
Friction Stir Processing	10	7	0	0	1	0	15	6	30
Fuel Cell Center	0	2	1	0	0	0	9	1	16
Identification Technology Research	1	5	6	0	1	0	35	0	17
Information Protection	0	0	0	0	0	0	11	2	38
Information Technology and Organizations	0	0	4	0	4	0	9	2	12
Intelligent Maintenance Systems	1	7	5	0	0	3	12	3	62
Membrane Applied Science and Technology	4	0	3	0	0	0	15	1	18
Multiphase Transport Phenomena	0	8	5	0	0	3	6	0	20
Nondestructive Evaluation	12	1	3	0	0	0	35	3	57
Plasmas & Lasers in Advanced Manufacturing	0	4	3	0	0	0	12	1	11
Precision Forming	5	1	3	0	0	0	20	1	19
Precision Metrology	0	1	0	0	0	1	14	2	7
Repair of Buildings and Bridges with Composites	0	3	3	0	0	2	16	3	16
Safety, Security, Rescue Research Center	0	2	1	0	0	0	9	0	9
Silicon Wafer Engineering and Defect Science	0	0	3	0	0	3	5	3	13
Tree Genetics Research (Advanced Forestry)	3	1	2	0	1	0	24	1	76
Water Quality	1	0	5	1	4	3	19	9	49
Wireless Internet Center for Advanced Technology	0	8	4	0	1	2	50	0	20
<i>Grand Mean</i>	5.18	3.62	4.29	0.29	0.88	1.21	23.03	3.24	37.00
<i>Grand Sum</i>	176	123	146	10	30	41	783	110	1258

\* Report sorted by Alphabetically by Center

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**Table 8: 2006-2007 INTELLECTUAL PROPERTY EVENTS**

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**Table 8a: Centers Reporting One or More Intellectual Property Event Last Fiscal Year**

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<b>Intellectual Property Event</b>	<b># of Centers</b>	<b>% of Centers</b>
Invention Disclosures	16	47%
Patent Applications	12	35%
Software Copyrights	3	9%
Patents Granted/Derived	6	18%
Licensing Agreements	8	24%
Royalties Realized	5	15%

**Table 8b: Total Number and Means of Intellectual Property Events last Fiscal Year**

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<b>Intellectual Property Event</b>	<b>Total for all Centers</b>	<b>Mean for All Centers</b>
Invention Disclosures	74	2.18
Patent Applications	52	1.53
Software Copyrights	4	0.12
Patents Granted/Derived	14	0.41
Licensing Agreements	14	0.41
Royalties Realized	11	0.32

# APPENDIX

## FOOTNOTES AND 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 includes only data on Centers which were considered active participants in the NSF IUCRC Program during the 2006-2007 fiscal year.
- 3) On Table 1, "YEAR FUNDED" indicates the year NSF gave the center the operating grant it is currently operating under.
- 4) On Table 2, "TOTAL FUNDING" refers to the total cash income coming into the Center.
- 5) On Table 2, "NSF FUNDING" refers to two kinds of support, "IUCRC FUNDING" which refers to the total support provided by the IUCRC program, including operating grant, self-sustaining Center funding, evaluator support, TIE awards, RUI/PUI awards, etc. "NSF OTHER" refers to cash support for Center operations provided by other NSF groups or divisions. Neither of these categories includes money transferred through NSF from other Federal Agencies (MIPRs).
- 6) On Table 2, "INDUSTRY MEMBERSHIP FEES" refers to the total cash membership fees from Center members.
- 7) On Table 2, "INDUSTRY OTHER" refers to additional industry cash funding for operations provided by industrial members (e.g., enhancements, donations, etc.) which is applied to the Center as a whole (e.g., income that results in outcomes shared equally by all Center members).
- 8) On Table 2, "STATE TOTAL" refers to the support provided by state government and/or an agency or program funded by state government.
- 9) On Table 2, "UNIV. TOTAL" refers to the support for the Center operating costs including salary, travel, and overhead returned to the Center. It does NOT include items such as utilities and space.
- 10) On Table 2, "OTHER FEDERAL AGENCY" refers to cash support for Center operations provided by other Federal funding sources, but does NOT include funding from NSF.
- 11) On Table 2, "OTHER NON-FEDERAL AGENCY" refers to cash support for Center operations provided by other non-Federal funding sources, foundations, etc.
- 12) On Table 2, "OTHER FUNDING" refers to any other cash support, such as contracts, received by Center researchers that would not have been received if the Center did not exist. The funding would not result in outcomes shared equally by Center members.
- 13) On Table 3, "CAPITAL AND IN-KIND CONTRIBUTIONS" refers to capital support for items of value over \$25,000 and includes equipment, facilities, personnel, and software.
- 14) On Table 3, "% to MEM" refers to the overhead rate charged to industry membership fees.
- 15) On Table 3, "TYPICAL OVERHEAD" refers to the typical overhead rate charged to funding sources.
- 16) On Table 3, "ADMIN. BUDGET (%)" refers to the estimated percentage of the Center's direct operating budget allocated to administration (e.g., administrative salaries, travel, telephone).
- 17) On Table 4, "FEES" are broken down into primary, secondary, and tertiary (the latter two represent variable membership fees).
- 18) On Table 5, "FACULTY SCIENTISTS" includes the Center Director(s) and Faculty Researchers.
- 19) On Table 6, "TIME ALLOCATION" refers to allocation of director's full-time equivalent for budgetary purposes.
- 20) On Table 7, "STUDENTS RECEIVING DEGREE" refers to the number of Ph.D.'s, M.S.'s, and B.A./B.S.'s that received a degree during the reporting period.
- 21) On Table 7, "STUDENTS HIRED BY INDUSTRY" refers to the number of Ph.D.'s, M.S.'s, and B.A./B.S.'s that were hired by member companies during the reporting period.
- 22) On Table 7, "PUBLICATIONS" refers to the publications in the open literature the Center researchers produced based on Center research including publications reported that have a Center industry member as an author.