# THE UNIVERSITY OF KANSAS Institute for Public Policy and Business Research School of Business Department of Economics RESEARCH PAPERS

# Sixth Assessment of the Science, Engineering, and Math Infrastructure at Three Universities in Kansas

prepared for
K\*STAR

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A copy of this report may be obtained from the K\*STAR NSF EPSCoR, 207 Strong Hall, University of Kansas, Lawrence, Kansas 66045.

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#### **EXECUTIVE SUMMARY**

Kansas received its first NSF EPSCoR grant in 1992. The second NSF EPSCoR grant, received in 1995, is a cooperative agreement, negotiated on a yearly renewal basis. Assessment of the status of science, engineering, and math (SEM) research and infrastructure at the state's three Ph.D. granting institutions (Kansas State University, University of Kansas - Lawrence, and Wichita State University) has occurred annually.\* Assessment revealed that, at the end of the first three years of NSF EPSCoR funding, the state's competitive position was improving, especially for faculty who received EPSCoR funds.

Phase II of the NSF EPSCoR funding has begun, and the state has renewed its efforts to improve its competitive position. However, maintaining past gains has proven to be a challenge. The chart, *The Universities at a Glance for 1996 for Science, Engineering and Math*, at the end of this executive summary gives an overview of the current situation for Kansas. Data concerned with faculty, enrollment, and degrees awarded are reported for annual year 1996. Grant data are reported for fiscal year 1995. Current assessment revealed several important findings.

- The number of SEM faculty fell by three percent in academic year 1996 compared to 1995. The largest number decreases were seen at KSU.
- The number of women and minority SEM faculty continued to be above 1991 levels, but showed little change over 1995 levels.
- The number of professors and assistant professors was lower in 1996 than in 1995, which may have a negative impact upon research and grant productivity.
- The number of post doctoral positions increased by twelve percent from 1995 to 1996 and by 62 percent from 1991 to 1996.
- Faculty salaries continue to be lower than those paid at peer institutions.
- SEM graduate enrollment was two percent higher than 1995 levels and seven percent above 1991 levels. The number of engineering graduate students fell seven percent from 1995 to 1996. However, engineering enrollment in 1996 was 22 percent above the 1991 levels while science was only one percent above the 1991 levels.
- The number of women enrolled in SEM graduate programs increased in 1995 while minority enrollment remained the same.
- The number of graduate students receiving financial support in the form of teaching
  assistantships or research assistantships was lower than the previous year while graduate
  enrollment increased leading to a decline in the percent of graduate students receiving
  financial support.

<sup>\*</sup> Appendix A lists all department and academic units included in the database. Departments and academic units vary between institutions.

- NSF dollars (excluding NSF EPSCoR) awarded to the state increase but only slightly (three percent) and actually declined (-0.2 percent) when adjusted for inflation.
- The number and dollars awarded by all funding sources has declined for the past two years (FY 1994 and FY 1995).

The 1996 data revealed declines in the number of professors, assistant professors, academic staff, directors and technical staff, and graduate teaching assistants. Declines in faculty were explained by

- a hiring freeze in 1994 at the University of Kansas due to budget restrictions,
- a decrease in federal funding for agricultural programs at Kansas State University,
- an increase in the hiring of temporary (adjunct) faculty to fill tenure track positions at Kansas State University, and
- selective replacement of vacant positions due to a decline in total enrollment at Wichita State University.

Previous EPSCoR assessments suggested that the lifting of hiring freezes would be followed with increases in the number of faculty and consequently the number of students accepted into graduate programs. It was argued that with more faculty personnel hired, the number of grants submitted and funded would improve which would also increase the number of student research assistants that can be supported.

However, it may still be too early to see much improvement from the lifting of hiring freeze at the University of Kansas. And, it appears that the hiring practices for faculty at Kansas State University and Wichita State University do not support an increase in faculty. Kansas continued to see a decline in the number of grants submitted and awarded in 1995. While the 1996 data does show improvement in graduate enrollment, it also shows declines in SEM personnel, particularly faculty and graduate teaching assistants. If the hiring practices were responsible for the declines seen in the 1995 infrastructure and still prevalent in the 1996 infrastructure, then past improvements in Kansas' competitive position may indeed be very fragile. The state must focus upon protecting gains made during the first three years of NSF EPSCoR and encouraging growth in key areas such as number of faculty, graduate enrollment, and graduate student support that will drive future growth.

# The Universities at a Glance for 1996 for Science, Engineering and Math

Kansas State University	Wichita State University
Faculty	Faculty
Female	Faculty
Minority	Female
Average Faculty Salary \$47,645	Minority
SEM Personnel	Average Faculty Salary\$45,438
Graduate Enrollment	SEM Personnel 494
Female	Graduate Enrollment
Minority76	Female
Percent Graduates Supported77%	Minority49
Ph.D. Degrees Awarded	Percent Graduates Supported
to Women	Ph.D. Degrees Awarded23
to Minority19	to Women5
Masters Degrees Awarded277	to Minority3
to Women	Wasters Degrees Awarded312
to Minority	to Women
NSF Grant Awards (1995)\$4,583,639	to Minority
Fotal Grant Awards (1995)\$4,363,639	NSF Grant Awards (1995)
Grant Awards of EPSCoR Funded Faculty*	Total Grant Awards (1995)\$3,183,356
Group I (1995)\$5,020,283 (22 awards)	Grant Awards of EPSCoR Funded Faculty*
Group II (1995)\$3,020,283 (22 awards) Group II (1995)\$3,961,004 (17 awards)	Group I (1995)\$103,686 (4 awards) Group II (1995)\$570,176 (9 awards)
The University of Kansas – Lawrence Campus only	State Totals
aculty397	Faculty
Female	Female
Minority49	Minority165
Average Faculty Salary\$52,688	Average Faculty SalaryNA
EM Personnel	SEM Personnel 3,942
raduate Enrollment1.701	Graduate Enrollment4,201
Female649	
Minority 104	Female
	Female1.562
ercent Graduates Supported56%	Female
h.D. Degrees Awarded108	Female
h.D. Degrees Awarded	Female
h.D. Degrees Awarded       108         to Women       40         to Minority       6         Iasters Degrees Awarded       280         to Women       93         to Minority       11	Female
h.D. Degrees Awarded       108         to Women       40         to Minority       6         Iasters Degrees Awarded       280         to Women       93         to Minority       11	Female
h.D. Degrees Awarded 108 to Women 40 to Minority 6 Iasters Degrees Awarded 280 to Women 93 to Minority 11 SF Grant Awards (1995) \$9,015,750**	Female
h.D. Degrees Awarded	Female
to Women	Female
to Minority	Female

<sup>\*</sup>Includes only those grants where faculty served as a principal investigator. Does not include NSF EPSCoR. \*\*Includes NSF EPSCoR. 1995 NSF EPSCoR = \$3,056,400.

# Sixth Assessment of the Science, Engineering, and Math Infrastructure at Three Universities in Kansas

#### INTRODUCTION

In 1992, Kansas became a NSF EPSCoR state to improve its ability to compete for federal research and development (R&D) dollars. At that time, a plan was developed to assess progress in making Kansas more competitive for federal R&D dollars. Annual assessment of the status of science, engineering and math (SEM) research and infrastructure at the state's three Ph.D. granting institutions occurred. That assessment relied upon a database which described and monitored the SEM infrastructure (human resources, facilities) and grant activity. The database was created using data provided by Kansas State University (KSU), University of Kansas-Lawrence<sup>1</sup> (KU) and Wichita State University (WSU). It contained information about personnel, graduate enrollment, degrees, facilities, and grant activity. Assessment of the impact of the first three years of NSF EPSCoR funding revealed that the state's competitive position was improving, especially for faculty who received EPSCoR funds.

In 1995, Kansas' NSF EPSCoR funding was negotiated for a Phase II, three year cooperative agreement. Annual assessment will continue to monitor growth in number of science, engineering, and math personnel, graduate students, degrees awarded, and grant activity. This report presents the sixth annual assessment of SEM research and infrastructure.

## SCIENCE, ENGINEERING, AND MATH INFRASTRUCTURE

#### Personnel

SEM Faculty<sup>2</sup>. The total number of SEM faculty at KSU, KU-Lawrence and WSU has declined slightly since 1991 (Figure 1). In 1991, the state (KSU, KU and WSU combined) had a total of 1,231 SEM faculty and in 1996, the state total was 1,189, a decrease of three percent (Table 1).

**Table 1** shows that all three universities experienced declines in the number of SEM faculty from 1995 to 1996. KSU saw its SEM faculty decline by 3 percent, KU by 2 percent and WSU by 6 percent. Most of the decrease at KSU was in the Science section within the agricultural departments. Decreases in the Agricultural Experiment Station and the Cooperative Extension Service funding could be affecting the number of assistant professors hired. It appears that the tenure track faculty positions are being filled by temporary faculty as illustrated by the

<sup>&</sup>lt;sup>1</sup>All data reported for the University of Kansas are for the Lawrence campus *only*. Medical Center data are not included.

 $<sup>^{2}</sup>$ Appendix A lists all departments and academic units included in the database. Departments and academic units vary between institutions.

increase in the number of adjunct faculty from 1995 to 1996 (6 to 31, respectively). A temporary hiring freeze imposed for budgetary purposes may account for the decline in faculty at KU starting in 1994. At WSU, fewer vacant faculty positions were being filled due to the total enrollment decline between 1995 and 1996, even though graduate enrollment in SEM remained up.

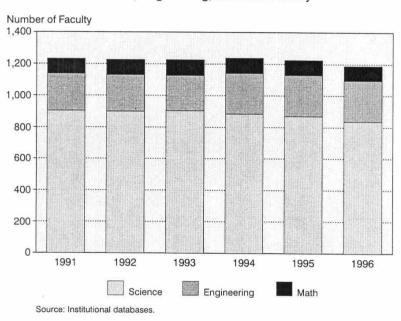


Figure 1
Science, Engineering, and Math Faculty

Figure 2 shows that the number of minority and women faculty members has grown since 1991. The total number of female SEM faculty for 1996 was 181, an increase of six faculty members from the 1995 level of 175 (**Table 2**). **Table 2** shows that the increase in female faculty at Kansas can be mostly attributed to the increase in female science faculty at KSU and that the total number of female faculty actually declined at both KU and WSU from 1995 to 1996. A slow but steady increase in female faculty has occurred since 1991 with the number of female faculty in 1996 at 181 compared to 163 in 1991, an increase of 18 females.

While the number of female SEM faculty has steadily increased since 1991, female SEM faculty as a percentage of the total SEM faculty has remained fairly stable comprising 14 to 15 percent of the total SEM faculty (**Table 2**). In 1996, women comprised 13 percent of the total SEM faculty at KSU, 16 percent at KU, and 20 percent at WSU. The 181 women SEM faculty comprised 15 percent of the state's SEM faculty in 1996.

<sup>&</sup>lt;sup>3</sup> Statistic obtained from the Office of Research and Sponsored Programs, Planning and Analysis, Kansas State University, 1998.

Table 1
Number of Science, Engineering, and Math Faculty:
KSU, KU, and WSU

							Percent	Change
	1991	1992	1993	1994	1995	1996	1995-96	1991-96
KSU								
Science	479	471	472	482	479	463	-3%	-3%
Engineering	115	111	106	128	130	129	-1%	12%
Math	29	31	33	32	32	32	0%	10%
Subtotal	623	613	611	642	641	624	-3%	0%
KU-Lawrence								
Science	286	295	300	296	283	273	-4%	-5%
Engineering	76	76	75	86	87	87	0%	14%
Math	37	38	40	38	36	37	3%	0%
Subtotal	399	409	415	420	406	397	-2%	-1%
WSU								
Science	138	132	130	105*	107	100	-7%	-5% *
Engineering	44	46	45	45	46	45	-2%	0%
Math	27	26	25	25	25	23	-8%	-8%
Subtotal	209	204	200	196	178	168	-6%	-4%
STATE								
Science	903	898	902	883	869	836	-4%	-7%
Engineering	235	233	226	259	263	261	-1%	11%
Math	93	95	98	95	93	92	-1%	-1%
TOTAL	1,231	1,226	1,226	1,237	1,225	1,189	-3%	-3%

<sup>\*</sup>Percent change for WSU 1994 to 1996; program changes in Science data starting 1994.

Minority members of the SEM faculty made up 14 percent of the total SEM faculty in 1996 (**Table 3**). The total number of minority faculty increased by four faculty members from 161 in 1995 to 165 in 1996. The total number of minority SEM faculty has grown by 36 faculty members from 129 in 1991 to 165 in 1996. From 1995 to 1996, the number of minority faculty members remained relatively unchanged with an increase of two members at KSU, an increase of three members at KU, and a decrease of one member at WSU.

<sup>&</sup>lt;sup>4</sup> Minority faculty numbers in Kansas are relatively low. Therefore, small number changes translate into large percent changes for the state.

The total percentage of women and minority SEM faculty in the state remains low. However, in an environment that has seen a decline in the number of SEM faculty from 1991 to 1996, the number of female and minority faculty have managed to increase during the same time period despite the recent declines in female faculty.

Number of Faculty 180 170 160 150 140 130 120 1991 1992 1993 1994 1995 1996 Women -- Minority Source: Institutional databases

Figure 2 Science, Engineering, and Math Female and Minority Faculty

SEM Personnel. Figure 3 shows a trend of the decline in the total number of SEM personnel starting in 1995. While SEM personnel declined by two percent from 1995 to 1996, Table 4 shows increases in some areas: associated professors (1 percent), research associates and assistants (12 percent), post doctoral (12 percent), and student research assistants (1 percent). The increase in number of associate professors is tempered by a decrease in number of assistant professors indicating that those promoted to the associate level were not replaced by new hires at the assistant level. In 1995, the number of assistant professors fell below 1991 levels for the first time since data collection began; that trend continued into 1996 with the number of assistant professors declining by nine percent. Graduate teaching assistants experienced their first decline since data collection began in 1991.

<sup>&</sup>lt;sup>5</sup> SEM personnel includes professors, associate professors, assistant professors, academic staff/directors/technical staff, research associates and assistants, post doctoral, graduate teaching assistants, and student research assistants.

Table 2
Number of Female Faculty

							Percent	Change
	1991	1992	1993	1994	1995	1996	1995-96	1991-96
KSU	5 H							
Science	54	54	60	64	64	72	13%	33%
Engineering	4	4	5	6	8	9	n.a.	n.a.
Math	0	0	0	0	0	1	n.a.	n.a.
<b>Total Female</b>	58	58	65	70	72	82	14%	41%
Total Faculty	623	613	611	642	641	624	-3%	0%
% Female	9%	9%	11%	11%	11%	13%		
			3					
****								
KU-Lawrence			220	82		55751		
Science	45	53	57	60	58	56	-3%	24%
Engineering	2	2	4	5	6	5	n.a.	n.a.
Math	3	3	3	3	3	4	n.a.	n.a.
Total Female	50	58	64	68	67	65	-3%	30%
Total Faculty	399	409	415	420	406	397	-2%	-1%
% Female	13%	14%	15%	16%	17%	16%		
WSU								
Science	52	49	46	37*	33	30	-9%	-19%*
Engineering	2	2	2	2	3	4	n.a.	n.a.
Math	1	0	0	0	0	0	n.a.	n.a.
<b>Total Female</b>	55	51	48	49	47	34	-6%	-13%
Total Faculty	209	204	200	175	178	168	-6%	-4%
% Female	26%	25%	24%	28%	26%	20%		
COT A PINE								
STATE		100	1.00			7 20	2724	500
Science	151	156	163	161	155	158	2%	5%
Engineering	8	8	11	13	17	18	6%	n.a.
Math	4	3	3	3	3	5	n.a.	n.a.
Total Female	163	167	177	177	175	181	3%	11%
Total Faculty	1,231	1,226	1,226	1,237	1,225	1,189	-3%	-3%
% Female	15%	14%	14%	14%	14%	15%		

<sup>\*</sup>Percent change for WSU 1994 to 1996; program changes in Science data starting 1994.

n.a. = not applicable. Percent change not calculated (numbers too small to generate a meaningful percent change).

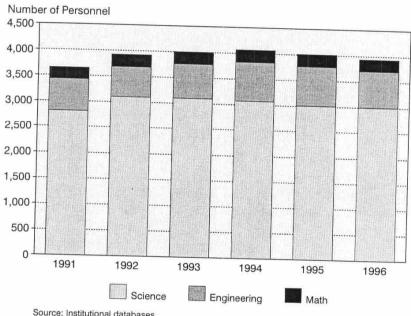
Table 3
Number of Minority Faculty

	1991	1002	1000				Percent	Change
KSU	1991	1992	1993	1994	1995	1996	1995-96	1991-96
Science	36	10	4.0	140000				
Engineering	16	40	40	39	42	44	5%	22%
Math	6	16	14	22	26	27	4%	n.a.
Total Minority		8	9	9	8	7	n.a.	n.a.
Total Faculty	-	64	63	70	76	78	3%	34%
% Minority	623	613	611	642	641	624	-3%	0%
% Wilhority	9%	10%	10%	11%	12%	13%		0 70
KU-Lawrence								
Science	24	25	24	27	24	27	120	20.00
Engineering	10	12	12	14	13	27	13%	13%
Math	5	6	9	9	9	13	n.a.	n.a.
<b>Total Minority</b>	39	43	45	50	46	9	n.a.	n.a.
Total Faculty	399	409	415	420	406	<b>49</b> 397	7%	26%
% Minority	10%	11%	11%	12%	11%	12%	-2%	-1%
				12 70	11 70	12%		
WSU								
Science	15	16	17	13*	15	13		
Engineering	10	12	12	14	15		n.a.	n.a.
Math	7	7	6	8	9	16 9	n.a.	n.a.
<b>Total Minority</b>	32	35	35	35	39	38	n.a.	n.a.
Total Faculty	209	204	200	175	178	168	-3%	9%
% Minority	15%	17%	18%	20%	22%		-6%	-4%
		contraction	10 /0	20 70	22 76	23%		
STATE								
Science	75	81	81	79	81	84	4.07	40.00
Engineering	36	40	38	50	54		4%	12%
Math	18	21	24	26	26	56 25	4%	56%
<b>Total Minority</b>	129	142	143	155	161	25	-4%	39%
Total Faculty	1,231	1,226	1,226	1,237		165	2%	28%
% Minority	10%	12%	12%	13%	1,225 13%	1,189	-3%	-3%
	-0/0	12 70	14 /0	13 70	13%	14%		

<sup>\*</sup>Percent change for WSU 1994 to 1996; program changes in Science data starting 1994.

n.a. = not applicable. Percent change not calculated (numbers too small to generate a meaningful percent change).

Figure 3 Science, Engineering, and Math Personnel



Since 1991, post doctoral personnel has experienced the greatest percentage growth with a 62 percent increase in numbers (Table 4). Academic staff, directors and technical staff experienced the next highest growth rate with a 26 percent increase. While the number of student research assistants increased by 20 percent from 1991 to 1996, the number of student research assistants in 1996 were less than the number in 1993. This recent trend is of concern since these positions reflect the number of graduate students supported in research positions. The number of assistant professors has declined by 14 percent since 1991. Overall, the total number of SEM personnel in 1996 was 3,942, which was an 8 percent increase from the 1991 number of 3,656. However, Table 4 also shows that the total number of SEM personnel in 1996 was at its lowest level since 1992. See Appendix B for further information on the SEM personnel by year and institution.

Age of SEM Faculty. Table 5 groups SEM faculty at the three Kansas institutions by ten-year age intervals. According to data provided by the institutions, 451 of the SEM faculty are over the age of 50, 351 are in the 40 - 49 age cohort, and 281 are under the age of 30. Figure 4 illustrates a breakdown of SEM faculty in five-year age intervals. These data are illustrative of the institutional capacity in Kansas to compete for grant funding and show that the number of established faculty in Kansas are relatively small compared to other competing institutions.

Table 4
NUMBER OF SEM PERSONNEL:
KSU, KU, and WSU Combined

	1991	1992	1993	1994	1995	1996	Percent 1995-96	<u>Change</u> 1991-96
Professor	557	558	555	559	553	542	-2%	-3%
Associate Professor	334	322	326	327	351	354	1%	6%
Assistant Professor	340	346	345	351	321	293	-9%	-14%
Acad. Staff, Directors & Technical Staff	376	616	514	495	491	474	-3%	26%
Subtotal:	1,607	1,842	1,740	1,732	1,716	1,663	-3%	3%
Research Associates & Assistants	341	352	344	310	293	328	12%	-4%
Post Doctoral	45	58	65	52	65	73	12%	62%
Graduate Teaching Assistants	846	789	868	911	970	900	-7%	6%
Student Research Assistants	817	885	985	1,065	970	978	1%	20%
Subtotal:	2,049	2,084	2,262	2,338	2,298	2,279	-1%	11%
TOTAL	3,656	3,926	4,002	4,070	4,014	3,942	-2%	8%

Table 5 SEM FACULTY BY AGE: AY 1996

	20.20	20.20		roups	(44)	1200	
ECH	20-29	30-39	40-49	50-59	60+	Total	
KSU		0.0.3					
Science	3	106	136	153	63	461	
Engineering	2	38	35	33	20	128	
Math	0	10	9	11	2	32	
Total	5	154	180	197	85	621	
% Total	1%	25%	29%	32%	14%		
KU-Lawrence	(						
Science	1	58	85	82	47	273	
Engineering	2	18	27	23	17	87	
Math	1	8	8	10	10	37	
Γotal	4	84	120	115	74	397	
% Total	1%	21%	30%	29%	19%		
WSU							
Science	1	16	29	37	19	102	
Engineering	1	18	12	10	5	46	
Math	0	4	10	6	3	23	
Γotal	2	38	51	53	27	171	
% Total	1%	20%	27%	28%	14%	0.1 0	
STATE							
Science	5	180	250	272	129	836	
Engineering	5	74	74	66	42	261	
Math	1	22	27	27	15	92	
Γotal	11	276	351	365	186	1,189	
% Total	1%	23%	29%	30%	15%	-,	

Number of Faculty 120 100 80 60 20 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60+ Age Group Kansas State University - University of Kansas

Figure 4<sup>6</sup> SEM Faculty by Age, AY 1996

Wichita State University

#### **Faculty Salaries**

Low salaries place Kansas' doctoral granting institutions in a less competitive position for attracting and retaining quality faculty. Faculty salaries in Kansas continued to be lower than the average salaries of faculty at peer institutions (**Table 6**). In comparison to last year's data<sup>8</sup>, KU salaries increased slightly from 89 percent to 90 percent of salaries at peer institutions. KSU faculty salaries decreased from 91.5 percent for FY 1995 to 86 percent for FY 1996. WSU salaries increased from 88 percent to 90 percent of salaries at peer institutions.

<sup>&</sup>lt;sup>6</sup> Please refer to **Appendix A** for a list of all departments and academic units included in the database. Departments and academic units vary between institutions.

<sup>&</sup>lt;sup>7</sup>KSU's peer institutions are Colorado State University, Iowa State University, North Carolina State University, Oklahoma State University and Oregon State University. KU's peer institutions are University of Colorado, University of Iowa, University of North Carolina, University of Oklahoma and the University of Oregon. WSU's peer institutions are Portland State University, University of Akron, University of Nevada – Las Vegas, Oakland University, and Old Dominion.

<sup>&</sup>lt;sup>8</sup> Stella, M. Elizabeth, Fifth Assessment of the Science, Engineering, and Math Infrastructure at Three Universities in Kansas, IPPBR, the University of Kansas, Report No. 236, October, 1996, Table 5.

Table 6 COMPARISON OF PEER INSTITUTIONS' AVERAGE FACULTY SALARY FY 1996

	KSU	KU	WSU
Weighted average *	\$47,645	\$52,688	\$45,438
Weighted average of peer institutions	\$55,654	\$58,702	\$50,320
Kansas institutions as % of peer institutions	86%	90%	90%

<sup>\*</sup>Includes instructors, assistant, associate, and full professors.

#### **Graduate Enrollment**

Figure 5 shows that graduate enrollment in science, engineering and math increased from 1995 to 1996. Graduate SEM enrollment in 1996 was 4,201, a two percent increase from 4,125 in 1995 (Table 7). Graduate enrollment increases in science and math offset the 6 percent decrease in engineering from 1995 to 1996.

Compared to 1991 (Table 7), enrollment in 1996 was up with strong increases in engineering (22 percent). However, engineering graduate enrollment figures for 1996 are down from both the 1995 and 1994 figures. The overall increase in engineering was due to a 39 percent increase at KSU (see Appendix C). Enrollment in 1996 showed a six percent decrease over 1995 enrollment in engineering, while enrollment in the sciences and math were up six percent and two percent, respectively (Table 7).

Figure 5
Science, Engineering, and Math Graduate Student Enrollment

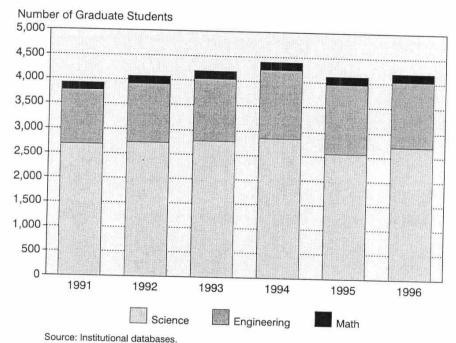


Table 7
SEM GRADUATE ENROLLMENT

STATE: 1991	1991	1992	1993 1994	1005	1000	% Change		
	1772	1773	1994	1995	1996	1995-96	1991-96	
Science	2,683	2,732	2,779	2,860	2,559	2,710	6%	1.07
Engineering	1,089	1,179	1,251	1,378	1,407	1,327	-6%	1%
Math	146	158	165	162	159			22%
			105	102	139	164	2%	12%
TOTAL	3,918	4,069	4,195	4,400	4,125	4,201	2%	7%

Figure 6 shows no little change in the number of women and minority graduate students enrolled in 1996. Table 8 presents the number of SEM women graduate students enrolled. A comparison on 1991 to 1996 female graduate students enrolled shows that engineering saw a dramatic increase in females with a 42 percent increase (or 54 more females). Math enrollment for females was relatively unchanged from 40 in 1991 to 45 in 1996. Science enrollment was up five percent from 1,271 in 1991 to 1,334 in 1996. Figure 6 shows that female graduate enrollment was at its highest in 1994 with 1,358 females enrolled. Total SEM graduate enrollment increased seven percent from 1991 to 1996 while female enrollment increased eight percent during the same time period (Table 8). As a percent of total SEM graduate enrollment, female enrollment has held fairly steady at 37 percent.

Table 9 presents similar data for minority graduate enrollment. The number of minority graduate students enrolled in 1996 in the sciences decreased over 1992 levels, while the number enrolled in engineering increased substantially. In 1996, minorities comprised 11 percent of the total SEM graduate enrollment. Minority SEM graduate enrollment outpaced total SEM graduate enrollment from 1991 to 1996 with a 13 percent increase for minority compared to seven percent for total. Compared to 1995, 1996 minority enrollment remained the same with losses in engineering offset by gains in the sciences and math. See Appendix C for further information on SEM graduate student enrollment by year and by institution.

Funding for graduate students declined slightly in 1996 (**Table 10**). While enrollment increased from 1995 to 1996, the number supported decreased. This resulted in an overall decrease in the percent of graduate students receiving financial support from 56 percent in 1995 to 54 percent in 1996. KSU supported 77 percent of its SEM graduate students in 1996 compared to 56 percent for KU and 23 percent for WSU. While KSU enrollment decreased the number funded increased. KU's enrollment did not change from 1995 to 1996 while the number supported declined. WSU supported fewer students while enrollment increased.

Figure 6
Science, Engineering, and Math
Women and Minority Graduate Enrollment

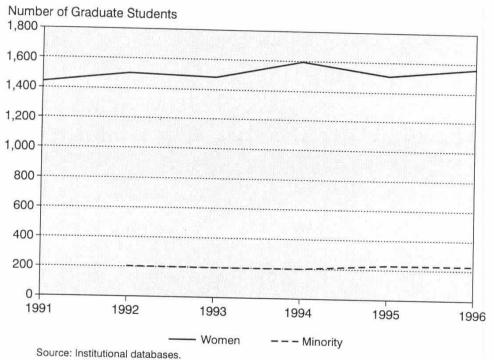


Table 8
SEM WOMEN GRADUATE ENROLLMENT

STATE: 19	1001	4004					% Ch	ange
	1991	1992	1993	1994	1995	1996	1995-96	1991-96
Science	1,271	1,315	1,270	1,358	1,268	1,334	5%	5%
Engineering	129	137	157	182	193	183	-5%	42%
Math	40	49	55	55	48	45	-6%	13%
Total Women	1,440	1,501	1,482	1,595	1,509	1,562	4%	8%
Total Enroll.	3,918	4,069	4,195	4,400	4,125	4,201	2%	7%
% Women	37%	37%	35%	36%	37%	37%	2 10	7 70

Table 9
SEM MINORITY GRADUATE ENROLLMENT

SAMELL AVERAGE OF						% CI	hange
STATE*:	1992	1993	1994	1995	1996	1995-96	1992-96*
Science	145	132	135	133	137	3%	-6%
Engineering	50	59	56	89	84	-6%	68%
Math	7	8	8	7	8	n.a.	n.a.
Total Minority	202	199	199	229	229	0%	13%
Total Enroll.	4,069	4,195	4,400	4,125	4.201	2%	7%
% Minority	8%	8%	8%	9%	11%	2.0	7 70

<sup>\*</sup>KSU ethnic data not available for 1991. Unable to calculate state totals.

n.a. = not applicable. Percent change not calculated (numbers too small to generate a meaningful percent change).

Table 10
POST GRADUATES\* RECEIVING FINANCIAL SUPPORT
COMPARED TO GRADUATE ENROLLMENT

KSU	1991	1992	1993	1994	1995	1996
Supported Enrolled % Supported	841 1,216 <b>69</b> %	809 1,282 <b>63</b> %	961 1,361 <b>71</b> %	1,057 1,442 <b>73</b> %	1,057 1,474 <b>72</b> %	1,070 1,398 <b>77</b> %
KU						
Supported Enrolled % Supported  WSU Supported	1,003 1,702 <b>59</b> %	1,103 1,819 <b>61</b> %	1,090 1,817 <b>60%</b>	1,039 1,880 55%	978 1,701 <b>57</b> %	956 1,701 <b>57</b> %
Enrolled % Supported	1,000 <b>21</b> %	968 <b>18%</b>	1,017 <b>21</b> %	1,078 <b>22</b> %	950 <b>28%</b>	253 1,102 <b>23</b> %
State						
Supported Enrolled % Supported	2,049 3,918 <b>52</b> %	2,084 4,069 <b>51</b> %	2,262 4,195 <b>54</b> %	2,338 4,400 <b>53</b> %	2,298 4,125 <b>56%</b>	2,279 4,201 <b>54</b> %

<sup>\*</sup>Includes research associates/assistants, post docs, graduate teaching assistants, student research assistants. Student hourly positions are not included in the count of graduate students receiving support. Also, graduate students must be enrolled full-time to receive teaching or research assistantships. For example, 38 percent were part-time enrollment at KSU 1994 and were not eligible for assistantships.

#### **Degrees Awarded**

Figure 7 presents the number of science, engineering and math degrees awarded from 1991 to 1996 and shows that the number of degrees awarded from 1994 to 1996 held fairly steady. From 1991 to 1996, the number of Ph.Ds awarded increased 22 percent, the number of masters' degrees increased 55 percent, and the number of bachelor degrees increased 13 percent (Table 11). The number of Ph.D. and Master degrees awarded in 1996 increased over 1995 levels while number of Bachelor degrees awarded decreased slightly. Table 12 shows that, while WSU increased the number of Ph.D. degrees awarded dramatically since 1991, KSU and KU awarded the majority of Ph.D. degrees in the state.

Figure 8 shows the slow but steady increase in number of degrees awarded to women and minorities from 1991 to 1996. While the number of Ph.D. degrees awarded to women remained relatively small, the number of women who earned Ph.D. degrees in 1996 increased 60 percent over 1991 levels (Table 11). The number of minorities earning Ph.D. degrees in 1996 declined 27 percent from 1995. See Appendix D for further information regarding degrees awarded at the three universities.

Figure 7
Science, Engineering, and Math Degrees Awarded

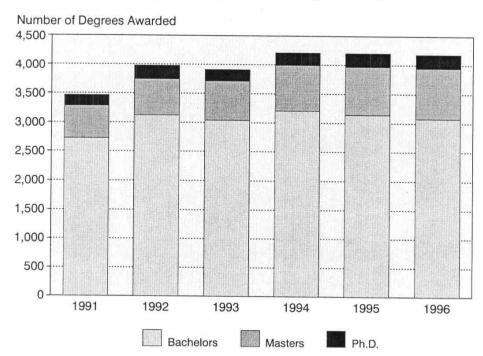


Table 11 SEM DEGREES AWARDED: KSU, KU, AND WSU

COT L TOTAL	<u>%</u> Ch	onge						
STATE:	1991	1992	1993	1994	1995	1996	1995-96	1991-96
<b>Total Populati</b>	on							
Ph.D. Master Bachelor Subtotal	182 559 2,723 3,464	236 621 3,123 3,980	197 675 3,039 3,911	218 787 3,205 4,210	238 828 3,140 4,206	241 869 3,075 4,185	1% 5% -2% -0%	32% 55% 13% 21%
Women Only Ph.D. Master Bachelor Subtotal % Women	40 210 1,111 <i>1,361</i> <b>39</b> %	60 202 1,233 1,495 <b>38</b> %	61 285 1,235 1,581 <b>40</b> %	57 327 1,257 1,641 <b>39</b> %	56 348 1,260 1,664 <b>40</b> %	64 334 1,249 1,647 <b>39</b> %	14% -4% -1%	60 % 59 % 12 % 21 %
Minorities Only Ph.D. Master Bachelor Subtotal % Minorities	y* 1 16 147 164 5%	2 15 172 189 <b>5</b> %	11 34 154 199 5%	9 29 218 256 <b>6</b> %	26 37 269 332 8%	19 58 311 388 <b>9</b> %	-27% 57% 16% 17%	*

<sup>\*</sup>KSU ethnic data for science and math were not available from the institution's database until 1995.

Figure 8

Degrees Awarded to Women and Minorities

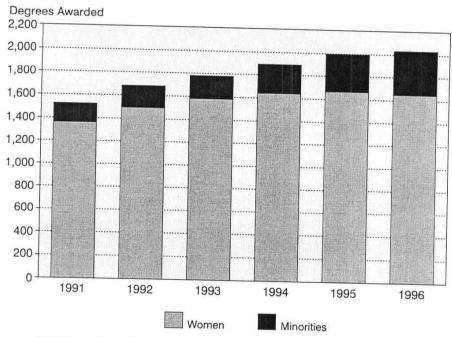


Table 12
SEM Ph.D. DEGREES AWARDED BY INSTITUTION

							% Change	
STATE:	1991	1992	1993	1994	1995	1996	1995-96	1991-96
Total Population	on							
KSU	80	111	87	97	105	110	5%	38%
KU	93	112	91	97	113	108	-5%	16%
WSU	9	13	19	24	20	23	13%	n.a.
Subtotal	182	236	197	218	238	241	1%	32%
Women Only								
KSU	15	23	25	14	25	19	-32%	27%
KU	23	33	32	37	26	40	35%	74%
WSU	2	4	4	6	5	5	n.a.	n.a.
Subtotal	40	60	61	57	56	64	13%	60%
% Women	22%	25%	31%	26%	24%	27%		
Minorities Onl	v*							
KSU	*	*	*	*	12	10	n.a.	n.a.
KU	1	2	7	3	9	6	n.a.	n.a.
WSU	0	0	4	6	5	3	n.a.	n.a.
Subtotal	1	2	11	9	26	19	-37%	*
% Minorities	1%	1%	6%	4%	11%	8%	same and	

<sup>\*</sup>KSU ethnic data for science and math were not available from the institution's database until 1995.

n.a. = not applicable. Percent change not calculated (numbers too small to generate a meaningful percent change).

#### SCIENCE, ENGINEERING, AND MATH GRANT ACTIVITY

#### **Grant Database**

The following guidelines were used to compile the grant database:

- 1. Multi-year awards were counted once in the year awarded (e.g., a three-year \$300,000 grant awarded was counted as one \$300,000 grant, not as three \$100,000 grants).
- 2. Grants with more than one investigator were counted once as the "lead" PI's grant.
- 3. Grants submitted in one fiscal year but awarded in the next fiscal year were counted in the year submitted.

<sup>&</sup>lt;sup>9</sup> The NSF EPSCoR grant (1995) to KU's Engineering is classified as a cooperative agreement. Although it is subject to a competitive renewal process, it is not given a new award number by NSF and is therefore classified as a multi-year award.

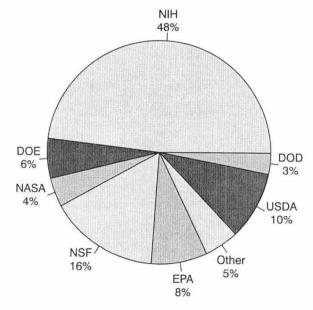
- 4. Grants submitted in one fiscal year, not funded, then resubmitted in another fiscal year were counted as a new submission.
- 5. Competitive renewals or continuations were counted as new grant submissions.
- 6. Grants pending after two years were considered "rejected" or not funded.

#### **NSF Submissions and Awards**

Kansas. In FY 1995, 16 percent of all federal R&D academic obligations in Kansas came from NSF (Figure 9). Figure 10 shows that the number of grants submitted to NSF by SEM faculty continued to rise in FY 1995 and the number awarded also increased. The number awarded in FY 1994 was 95 while the number awarded in FY 1995 was 106, a 12 percent increase (Table 13). FY 1995 award number was an increase of 63 percent over FY 1991 levels.

**Figure 11** shows that the total dollars requested increased to an all time high of \$70,793,503. However, total dollars awarded increased only three percent from \$11,358,257 in FY 1994 to \$11,661,977 in FY 1995 (**Table 13**). When adjusted for inflation, the dollars awarded from FY 1994 to FY 1995 actually saw a slight decline of 0.2 percent. Dollars awarded in 1995 increased by 66% percent over FY 1991 levels or 48 percent when adjusted for inflation. See **Appendix E** for complete NSF grant data by year and by institution.

Figure 9
Federal R&D Academic Obligations in Kansas, by Agency
FY 1995 Total \$63,877,000



Source: Quantum Research Corporation.

<sup>&</sup>lt;sup>10</sup> NSF EPSCoR funding is not included in the totals reported in **Table 13** for FY 1993 and FY 1995.

<sup>11</sup> Dollars awarded are adjusted for inflation to 1995 dollars.

Figure 10
Number of Science, Engineering, and Math NSF Grants

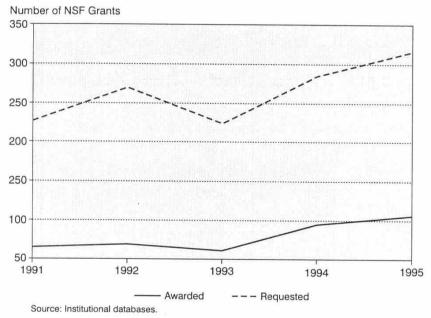
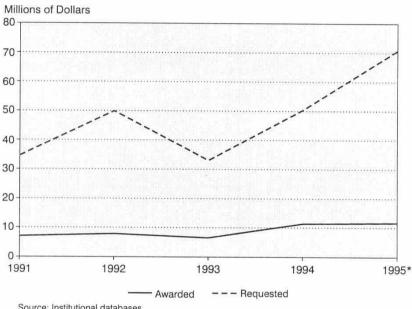


Figure 11
Science, Engineering, and Math NSF Grant Dollars



Source: Institutional databases. \*Does not include NSF EPSCoR.

Table 13 NSF Grant Activity: FY 1991 – FY 1995

	<b>Total Awarded</b>		Adjusted for Inflation**	Tota	Requested
$\mathbf{F}\mathbf{Y}$	No.	<b>Dollars</b>	(in 1995 dollars)	No.	Dollars
1991	65	\$7,045,285	(\$7,883,270)	227	\$34,633,129
1992	69	\$7,820,123	(\$8,494,560)	270	\$49,918,486
1993*	61	\$6,511,766	(\$6,867,773)	224	\$33,051,331
1994	95	\$11,358,257	(\$11,680,151)	285	\$50,310,712
1995*	106	\$11,661,977	(\$11,661,977)	316	\$70,793,503

#### % CHANGE:

<b>Total Awarded</b>		Awarded	Adjusted for Inflation	<b>Total Requested</b>		
$\mathbf{F}\mathbf{Y}$	No.	<b>Dollars</b>	(in 1995 dollars)	No.	Dollars	
94-95*	12%	3%	(-0.2%)	11%	41%	
91-94	46%	61%	(48%)	26%	45%	
91-95*	63%	66%	(48%)	39%	104%	

<sup>\*</sup>NSF EPSCoR not included. NSF EPSCoR 1993=\$4,400,000. NSF EPSCoR 1995=\$3,056,400.

\*\*Adjusted for Inflation Equation: final year dollars = initial year dollars \* (final year cpi)/(initial year cpi),
where cpi91=136.2, cpi92=140.3, cpi93=144.5, cpi94=148.2, and cpi95=152.4.

Source: Institutional databases and Bureau of Labor Statistics, Consumer Price Index-All Urban Consumers, Series ID CUUR0000SA0, Base Period: 1982-84=100.

Nation. While NSF funding trends could be considered encouraging, Kansas still has not reached competitive levels. Figure 12 shows NSF funding awarded to academic institutions in Kansas falls well below the US average for NSF R&D academic obligations. The US average was approximately \$33 million in FY 1995 compared to a little over \$10 million awarded to Kansas. Even when taking into account the smaller size of the state, Kansas has not competed successfully for its share of NSF R&D dollars. Figure 13 shows that Kansas was well below the U.S. average in dollars awarded per 1000 population. The increase in funding for 1992 and 1995 can be attributed to the NSF EPSCoR grants to Kansas.

#### **Total Grants Submitted and Awarded**

*Kansas.* The number of proposals submitted (total requested) by SEM faculty to all agencies and funding sources rose steadily from FY 1991 to FY 1994 and then declined in FY 1995 (**Figure 14**). Not surprisingly, the total grant dollars requested and awarded also declined in FY 1995 (**Figure 15**).

Figure 12 NSF R&D Academic Obligations, FY 1980 - FY 1995

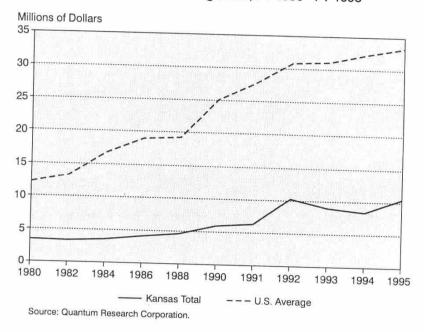


Figure 13
Total NSF R&D Academic Obligations
Per 1,000 Population, FY 1980 - FY 1995

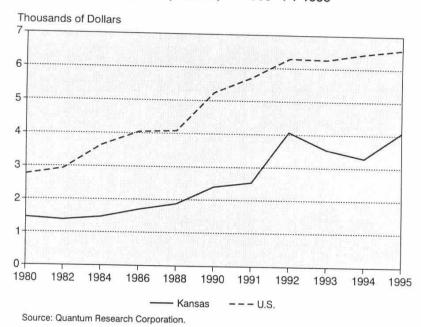


Figure 14
Number of Science, Engineering, and Math Grants: All Agencies

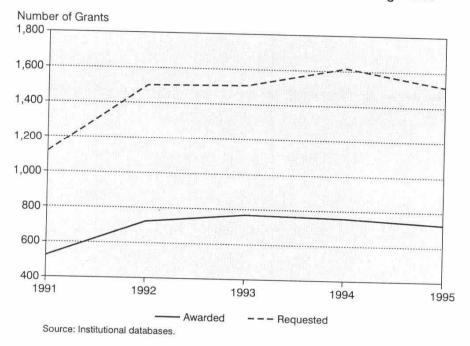
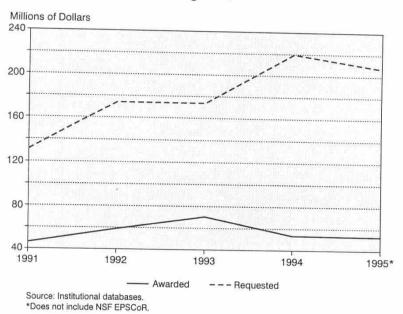


Figure 15
Science, Engineering, and Math Total Grant Dollars Awarded:
All Agencies



**Table 14** presents the total number of grants awarded to Kansas SEM faculty. The total number of grants awarded decreased four percent from 757 in FY 1994 to 729 in FY 1995. Dollars awarded in FY 1995 decreased one percent over FY 1994 levels. However, the number of grants awarded in FY 1995 increased 39 percent over FY 1991 and dollars awarded increased 15 percent or three percent when adjusted for inflation. Appendix F presents detailed grant information by year and by institution.

Table 14
TOTAL GRANT ACTIVITY

Total Awarded FY No. Dollars			Jacob Lot Initiation		<b>Total Requested</b>		
	No.	Dollars	(in 1995 dollars)	No.	Dollars		
1991	524	\$46,164,830	(\$51,655,801)	1,115	\$131,315,876		
1992	722	\$58,824,989	(\$63,898,277)	1,500	\$173,912,328		
1993*	769	\$65,949,700	(\$69,555,255)	1,509	\$169,375,113		
1994	757	\$53,538,499	(\$55,055,784)	1,616	\$219,719,025		
1995*	729	\$53,187,571	(\$53,187,571)	1,516	\$207,488,252		

#### % CHANGE:

	Total A	Awarded		<b>Total Requested</b>		
FY	No.	<b>Dollars</b>	(Adjusted for Inflation)	No.	Dollars	
94-95*	-4%	-1%	(-3%)	-6%	-6%	
91-94	44%	16%	(7%)	45%	67%	
91-95*	39%	15%	(3%)	36%	58%	

<sup>\*</sup>NSF EPSCoR not included. NSF EPSCoR 1993=\$4,400,000. NSF EPSCoR 1995=\$3,056,400. \*\*Adjusted for Inflation Equation: final year dollars = initial year dollars \* (final year cpi)/(initial year cpi), where cpi91=136.2, cpi92=140.3, cpi93=144.5, cpi94=148.2, and cpi95=152.4.

Source: Institutional databases and Bureau of Labor Statistics, Consumer Price Index-All Urban Consumers, Series ID CUUR0000SA0, Base Period: 1982-84=100.

Nation. Table 15 shows Kansas academic institutions received more federal dollars in FY 1995 than Nebraska and Oklahoma, and ranked below all neighboring states except Oklahoma in R&D dollars per capita. When corrected for the smaller population, and hence smaller number of faculty applying for grants, Kansas funding levels were also well below the national average (Figure 16). Figure 17 shows that, in the early 1980s, Kansas lost ground in the competition for federal R&D academic obligations. In recent years, the state's increase paralleled the national trend, but did not close the gap created a decade ago. And in 1994, the gap actually widened as the percent increase in Kansas declined while the U.S. total continued to increase.

<sup>&</sup>lt;sup>12</sup> Dollars awarded are adjusted for inflation in 1995 dollars.

Table 15 FEDERAL RESEARCH AND DEVELOPMENT ACADEMIC OBLIGATIONS BY STATE

<b>FY 1990</b> (millions \$)	<b>FY 1995</b> (millions \$)	\$ per capita FY 1990	\$ per capita FY 1995	\$ per capita % Change	
\$ 169	\$ 240	\$ 51	\$ 64	25%	
170	239	33			
107	138	38			
44	64	18			
36	51	11			
29	45	18	27	50	
\$9,008	\$12,068	\$ 36	\$ 46	28%	
	(millions \$)  \$ 169 170 107 44 36 29	(millions \$) (millions \$)  \$ 169	(millions \$)       (millions \$)       FY 1990         \$ 169       \$ 240       \$ 51         170       239       33         107       138       38         44       64       18         36       51       11         29       45       18	(millions \$) (millions \$) FY 1990 FY 1995  \$ 169 \$ 240 \$ 51 \$ 64 \$ 170 239 33 45 107 138 38 49  44 64 18 25 36 51 11 16 29 45 18 27	(millions \$)       (millions \$)       \$ per capita FY 1995       \$ per capita % Change         \$ 169       \$ 240       \$ 51       \$ 64       25%         170       239       33       45       36         107       138       38       49       29         44       64       18       25       39         36       51       11       16       45         29       45       18       27       50

<sup>\*1995</sup> Kansas Population (in thousands) = 2,565. 1995 U.S. Population (in thousands) = 262,890.

Source: National Science Foundation, The Survey of Federal Support to Universities, Colleges, and Selected Nonprofit Institutions and the U.S. Bureau of the Census, "Statistical Abstract of the United States: 1996."

Figure 16 Total Federal R&D Academic Obligations Per 1,000 Population, FY 1980 - FY 1995

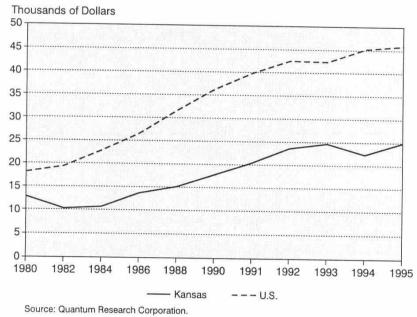
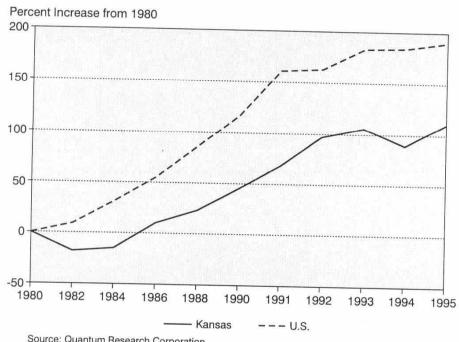


Figure 17 Percent Increase in Federal R&D Academic Obligations, FY 1980 - FY 1995



Source: Quantum Research Corporation.

Table 16 presents the R&D expenditures at universities in neighboring states in FY 1995. Kansas's institutions ranked lower than most neighboring institutions, several of which were also peer institutions. For example, KSU ranked much lower than its peer institutions Iowa State University and Colorado State University. KU also ranked lower than the University of Colorado, University of Iowa and University of Oklahoma, its neighboring peer institutions.

Table 16
R&D EXPENDITURES IN SCIENCE AND ENGINEERING AT UNIVERSITIES
BY SOURCE OF FUNDS, FY 1995 (Dollars in Thousands)

Neighboring State Institution	Total* (rank)	\$ Federal Gov.	State & Local Gov.
U. of Colorado	\$249,695 (18)	\$169,674	\$4,207
U. of Iowa	164,893 (39)	103,115	4,946
Iowa State U.	154,932 (43)	58,766	41,989
U. of Missouri	122,870 (61)	32,420	15,018
Colorado State U.	122,172 (64)	75,216	17,203
U. of Nebraska	107,721 (70)	36,897	34,282
U. of Oklahoma	102,337 (76)	37,112	11,273
U. of Kansas	100,702 (77)	42,209	8,045
Oklahoma State U.	75,906 (99)	18,951	7,743
Kansas State U.	71,103 (105)	25,266	28,794**

Wichita State U. was not included in the listing of the top 200 institutions. WSU Total = \$9,691.

Source: National Science Foundation, Academic Science and Engineering: R&D Expenditures, Fiscal Year 1995, Detailed Statistical Tables, Table B-35, NSF-96-308 (Arlington, VA, 1996).

### **EPSCoR Faculty Grant Activity**

The first three-year NSF EPSCoR grant (Phase 1) was awarded to the state of Kansas and funded SEM faculty from FY 1992 through FY 1994. The current three-year cooperative agreement (Phase 2) is projected from FY 1996 through FY 1998. The faculty supported by the first grant will be referred to as Group I; the faculty funded by the 1995 renewal will be referred to as Group II. Grant activity for Group I has been tracked since FY 1992 and will continue to be collected for two years to track their performance. Similar analysis will occur for Group II with data collection starting with FY 1994, before funding by NSF EPSCoR Phase II, in order to determine the effect of EPSCoR support on this group.

<sup>\*</sup>This total includes industry, institutional, and other sources not shown here.

<sup>\*\*</sup>This includes more than \$20 million in state appropriations for the Agricultural and Engineering Experimental Stations.

<sup>13</sup> See Appendix G for a complete listing of faculty in Group I and Group II.

**Table 17** presents the grant activity of Group I faculty who received NSF EPSCoR funding during the first funding phase. The data include only those grants where faculty served as the principal investigator and do **not** include NSF EPSCoR awards. Number of proposals submitted has grown steadily and the percentage awarded has been very good for Group I. However, for FY 1995, the number of grants awarded and the dollars awarded were lower than the previous year. The change in dollars awarded from increased 60 percent from approximately \$4.7 million in 1992 to \$7.5 million in 1995. However, when adjusted for inflation, the dollars awarded to this group from 1992 to 1995 grew 47 percent.

The same data for Group II are presented in **Table 18**. In FY 1994, before the second group was funded by NSF EPSCoR Phase II, this group submitted 162 proposals and 30 percent were funded for approximately \$5.6 million. The same group submitted 214 proposals in FY 1995 and 63 had been funded at almost \$6.7 million. It is anticipated that it will take until FY 1996 before the effects of EPSCoR funding for the first award faculty group will start to show and several years beyond that to see the effects on the second group.

Table 17
TOTAL GRANT ACTIVITY OF EPSCOR FUNDED FACULTY: GROUP I

	FY 1992	FY 1993	FY 1994	FY 1995
Proposals Submitted*	160	167	184	190
Grants Awarded	61	78	76	65
Percent Awarded	38%	47%	41%	34%
Dollars Awarded Adjusted for Inflation	\$4.721m	\$5.926m	\$9.041m	\$7.545m
(to 1995 dollars)**	(\$5.128m)	(\$6.250m)	(\$9.297m)	(\$7.545m)
% Change Dollars Awarded:				
1992 to 1995	60%			
Adjusted for Inflation	(47%)			

<sup>\*</sup>Includes only those grants where faculty served as principal investigator. Does not include NSF EPSCoR.

\*\*Adjusted for Inflation Equation: final year dollars = initial year dollars \* (final year cpi)/(initial year cpi),
where cpi92=140.3, cpi93=144.5, cpi94=148.2, and cpi95=152.4.

Source: Institutional databases and Bureau of Labor Statistics, Consumer Price Index-All Urban Consumers, Series ID CUUR0000SA0, Base Period: 1982-84=100.

Table 18
TOTAL GRANT ACTIVITY OF EPSCOR FUNDED FACULTY: GROUP II

Proposals Submitted* Grants Awarded Percent Awarded	FY 1994 162 49 30%	<b>FY 1995</b> 214 63 29%
Dollars Awarded	\$5,528,817	\$6,991,654

<sup>\*</sup>Includes only those grants where faculty served as principal investigator. Does not include NSF EPSCoR.

Figure 18 shows how faculty funded by the first EPSCoR grant increased the total dollars awarded to them. In FY 1992, the first year of funding, 15 EPSCoR funded faculty were awarded grants totaling less than \$50,000, 10 were awarded between \$50,000 and \$99,999, and 15 were awarded grants totaling in the \$100,000 to \$999,999 (Table 19). In FY 1995, funding for Group I increased in the higher ranges with one grant awarded for over \$1 million.

Table 19 presents the distribution of total dollars awarded to Group I by institution. The number of awards have remained the same or increased for all three institutions except for KU, which experienced a decline in the number of awards under \$100,000.

**Table 20** begins to track the distribution of dollars awarded to Group II in FY 1994, before NSF EPSCoR II was funded, and in FY 1995, the first year that Group II received EPSCoR funds. <sup>14</sup> (Data reported in **Tables 19** and **20** do not include NSF EPSCoR funds.) Group II began with 16 of the 31 faculty funded accumulating between \$100,000 and \$999,999 in FY 1994. For FY 1995, 19 of the 43 awards to faculty fell in the \$100,000 to \$999,999 range.

<sup>&</sup>lt;sup>14</sup> Group II does include some faculty whom are also part of Group I funding.

Figure 18
Change in Distribution of Total Dollars Awarded to Group I:
Number of EPSCoR Faculty Within Each Funding Range

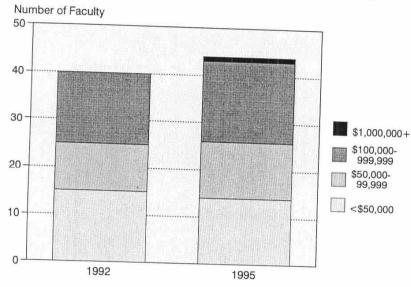


Table 19
EPSCOR FUNDED FACULTY AND DISTRIBUTION OF DOLLARS AWARDED: GROUP I

Dollars	Number of J KSU		EPSCoR KU	EPSCoR Faculty v KU**		within Each Fund WSU		ing Range* STATE	
Awarded:	1992	1995	1992	1995	1992	1995		1995	
\$1 - \$49,999	6	6	6	5	3	3	15	14	
\$50,000-\$99,999	3	6	7	5	0	1	10	12	
\$100,000-\$999,999	8	9	7	8	0	0	15	17	
\$1,000,000 +	0	1	0	0	0	0	0	1	
Total:	17	22	20	18	3	4	40	44	
(Group N)	(32)	(33)	(39)	(42)	(14)	(20)	(85)	(95)	
Percent of Total:	53%	67%	51%	43%	21%	20%	47%		

<sup>\*</sup>Includes only those grants where faculty served as principal investigator. Does not include NSF EPSCoR awards.

Source: Institutional databases.

<sup>\*\*</sup>KU data revised from previous reports.

Table 20
EPSCOR FUNDED FACULTY AND DISTRIBUTION OF DOLLARS AWARDED: GROUP II

Dollars		Number of I KSU		$KU^{**}$		WSU		STATE	
Awarded:	1994	1995	1994	1995	1994	1995	1994	1995	
\$1 - \$49,999	0	5	4	6	4	5	8	16	
\$50,000-\$99,999	3	2	3	4	1	2	7	8	
\$100,000-\$999,999	10	10	5	7	1	2	16	19	
\$1,000,000 +	0	0	0	0	0	0	0	0	
<b>Total Number:</b>	13	17	12	17	6	9	31	43	
(Total Group)	(33)	(33)	(40)	(40)	(21)	(21)	(94)	(94)	
Percent of Total:	39%	52%	30%	43%	29%	43%	33%	46%	

<sup>\*</sup>Includes only those grants where faculty served as principal investigator. Does **not** include NSF EPSCoR awards.

### IMPACT OF FUNDING UPON INFRASTRUCTURE

Have changes in grant funding affected the growth of the science, engineering, and math infrastructure? **Table 21** lists the total dollars awarded along with the number of post doctoral personnel, the number of faculty, and graduate enrollment from 1991 to 1995 in an effort to see if a pattern exists between funding and infrastructure. From 1991 to 1994, it appears that increases in grant funding translated into increases in post doctoral personnel. However, from 1994 to 1995, post doctoral personnel increased while total dollars awarded, faculty, and graduate enrollment declined. While total dollars awarded increased by 14 percent from 1991 to 1995, post doctoral numbers increased by 44 percent. During the same time period, faculty declined slightly (-0.49 percent) and graduate enrollment increased by 5 percent.

<sup>\*\*</sup>KU data revised from previous reports.

Table 21 SEM INFRASTRUCTURE AND FUNDING GROWTH

Year 1991 1992 1993* 1994 1995*	<b>Total Dollars Awarded</b> \$46,164,830 \$58,824,989 \$65,949,700 \$53,538,499 \$53,187,571	Post Docs 45 58 65 52 65	Faculty 1,231 1,226 1,226 1,237 1,225	Graduate Enrollment 3,918 4,069 4,195 4,400 4,125
'91 to '95 % Change	15%	44%	-0.49%	5%

<sup>\*</sup>NSF EPSCoR not included. NSF EPSCoR 1993=\$4,400,000. NSF EPSCoR 1995=\$3,056,400.

### CONCLUSIONS

Kansas participated in the NSF EPSCoR program for three years, from 1992 through 1995. In 1995, funding was renewed for another three years and a second group of SEM faculty began receiving funds. The state has made progress since funding began in 1992, but renewed funding requires renewed efforts to improve the state's competitive position even further. Current assessment revealed several important findings.

- The number of SEM faculty fell slightly (three percent) in academic year 1996 compared to 1995.
- The number of women and minority SEM faculty continued to be above 1991 levels but showed little change from 1995 to 1996. While women were 15 percent of the faculty in 1995 (well below the 50.9 percent level seen in the general population), minorities, at 14 percent, were very close to the proportion found in the general population (13.8 percent).<sup>15</sup>
- The number of assistant professors was lower in 1996 than in 1995 at all three institutions, as was the number of student research assistants.

<sup>&</sup>lt;sup>15</sup> Population Statistics from the *Kansas Statistical Abstract 1996*, Institute for Public Policy and Business Research, The University of Kansas, May 1997.

- The number of post doctoral positions increased twelve percent from 1995 to 1996. Since 1991, post doctoral personnel has increased by 62 percent.
- Faculty salaries continue to be lower than those paid at peer institutions.
- SEM graduate enrollment for 1996 was two percent higher than 1995 levels and seven percent above 1991 levels. The number of engineering graduate students fell six percent below 1995 levels but 22 percent above 1991 levels.
- The number of women enrolled in SEM graduate programs increased four percent from 1995 to 1996 while minority graduate enrollment remained unchanged.
- In 1996, 37 percent of SEM graduate students were women and 11 percent were minorities.
   Compared to the general population, the number of women graduate students was low while the number of minority graduate students was closer to levels found in the general population.
- The number of graduate students receiving financial support in the form of teaching assistantships or research assistantships was lower than the previous year.
- NSF dollars (excluding NSF EPSCoR) awarded to the state from 1991 to 1995 increased every year except for 1993.
- The number and dollars awarded by all funding sources declined in FY 1995.

The 1996 data revealed declines in number of assistant professors, student research assistants, and graduate enrollment. This may have a negative impact on research and grant productivity. While disturbing, these decreases must be put into context. With a better fiscal environment and the lifting of hiring freezes, the number of faculty will increase and the number of students accepted into graduate programs should also increase. With an increase in faculty hired, the number of grants submitted and funded should also improve, which will also increase the number of student research assistants that can be supported.

However, if the university continues to fill vacant faculty positions with adjunct faculty or to leave them vacant, then the research capabilities of the university may indeed be in a precarious position. If the hiring freeze of 1994 was responsible for the declines seen in the 1995 and 1996 infrastructures, then past improvements in Kansas' competitive position may be very fragile. The state must focus upon protecting gains made during the first three years of NSF EPSCoR and encouraging growth in key areas such as number of faculty, graduate enrollment, and graduate student support that will drive future growth.

### APPENDIX A

### Departments/Units Included in Database

### DEPARTMENTS/UNITS INCLUDED IN THE DATABASE

### KSU

Science

Animal Science Food Science

Genetics

Agronomy Biochemistry

Entomology Grain Science

Horticulture

Plant Pathology

Biology

Microbiology

Chemistry Geology

**Physics** 

Political Science/

Public Admin.

Psychology

Sociology/Anthro/

Social Work

Statistics **Economics** 

Geography

Foods & Nutrition Anatomy & Physiology

Clinical Sciences

Pathology/Microbiology

### Math

**Engineering** 

Agricultural

Agricultural Technology

Architectural Chemical

Civil

Computer Science

Information Systems

Construction Science

Electrical & Computer Industrial/Manufacturing Operations Research

Mechanical Nuclear

**KU** (Lawrence Campus)

**Science** 

Academic Computing Animal Care Unit

Anthropology

Anthropology Museum

Biological Sciences

Biochemistry Biology Botany

Entomology

**Environmental Studies** Physiol. & Cell Bio.

Systematics & Ecology Biomedical Research

Biological Survey

Bureau of Child Research/

Life Span Institute

Chemistry

Child Development Lab

Computer Science Ctr. Bioanalytical Res.

Ctr. Biomedical Research

Ctr. Drug Delivery Ctr. Neurobiol.& Immun.

Early Childhood Institute **Economics** 

Entomology Museum

Exper. & Applied Ecology

Geography

Geology Gerontology Ctr.

Herbarium

Higuchi Biosciences

Ctrs.

Human Development

Public Policy &

Business Research Interdisc.Env. Studies

Kansas Biological

Survey

Kansas Geological

Survey

Mass Spec Lab Medicinal Chemistry

Microbiology

Museum Natural History

Museum Inv. Paleontol.

NMR Lab

Paleontological Inst.

Pharmaceutical Chemistry

Pharmacol. & Toxicology

Pharmacy Practice Physics & Astronomy

Psychology

Science Instrument Lab

Sociology

#### Math

### Engineering

Aerospace

Applied Remote Sensing Architectural Engineer.

CRINC

Chemical & Petroleum

Civil

Ctr. Energy Res/Dev.

Ctr. Excel/CECASE

<sup>&</sup>lt;sup>1</sup>Departments listed under Science, Engineering, and Math are included in all databases (unless otherwise noted): faculty, personnel, graduate enrollment, degrees, facilities, and grants. Those listed under Other are also included in reports of NSF grant activity because of grants submitted to NSF.

Electrical & Computer
Engineering Management
Mechanical
Space Technology Ctr.
Tertiary Oil Recovery
Transportation Res. Center
Water Resources Institute

### WSU

### Science

Curriculum & Instruction<sup>2</sup> Industrial Technology Communicative Disorders **Biological Sciences** Chemistry Geology Computer Science Physics Psychology Anthropology Clinical Sciences Health Adm. & Gerontol. Nursing Dental Hygiene Respiratory Therapy Medical Technology Gerontology Ctr. Physical Therapy Physician Assistant

### Math

### **Engineering**

Aerospace
Electrical
Industrial
Mechanical
Special Projects
Wind Tunnel
NIAR

<sup>&</sup>lt;sup>2</sup> WSU data revised from previous reports to exclude Curriculum & Instruction starting in 1994.

# APPENDIX B SEM Faculty and Personnel

### NUMBER OF SEM FACULTY

KSU	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
Science	479	471	472	100	470			
Engineering	115		472	482	479	463	-3%	-3%
Math		111	106	128	130	129	-1%	12%
Part of	29	31	33	32	32	32	0%	10%
Subtotal	623	613	611	642	641	624	-3%	0%
KU-Lawrence								
Science	286	295	300	296	283	273	-4%	# Av
Engineering	76	76	75	86	87	87	2533475	-5%
Math	37	38	40	38	36	37	0%	14%
Subtotal	399	409	415				3%	0%
	377	407	413	420	406	397	-2%	-1%
WSU*								*
Science	138	132	130	105	107	100	-7%	-5%
Engineering	44	46	45	45	46	45	-2%	0%
Math	27	26	25	25	25	23	-8%	
Subtotal	209	204	200	175	178	168	322 (677)	-8%
			200	173	170	100	-6%	-4%
STATE								
Science	903	898	902	883	869	836	-4%	707
Engineering	235	233	226	259	263	261	-1%	-7%
Math	93	95	98	95	93	92		11%
TOTAL	1,231	1,226			37.0000	100.000	-1%	-1%
- O IIII	1,201	1,220	1,226	1,237	1,225	1,189	-3%	-3%

<sup>\*</sup> Percent change for WSU 1994 - 1996; Curriculum & Instruction data deleted from Science starting 1994.

### NUMBER OF WOMEN FACULTY

KSU	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
Science	54	54	60	64	64	72	13%	
Engineering	4	4	5	6	8	9		33%
Math	0	0	0	0	0	1	n.a.	n.a.
Subtotal	58	58	65	70	72	82	n.a.	n.a.
% of Total	9%	9%	11%	11%	11%	13%	14%	41%
KU-Lawrence								
Science	45	53	57	60	58	56	3.07	
Engineering	2	2	4	5	6	5	-3%	24%
Math	3	3	3	3	3	4	n.a.	n.a.
Subtotal	50	58	64	68	67	65	n.a.	n.a.
% of Total	13%	14%	15%	16%	17%	16%	-3%	30%
WSU*								
Science	52	49	46	37	33	30	0.01	*
Engineering	2	2	2	2	3	4	-9%	-19%
Math	1	0	0	0	0	0	n.a.	n.a.
Subtotal	55	51	48	39	36	34	n.a.	n.a.
% of Total	26%	25%	24%	22%	20%	20%	-6%	-13%
STATE								
Science	151		2 22					
	151	156	163	161	155	158	2%	5%
Engineering Math	8	8	11	13	17	18	n.a.	n.a.
TOTAL	4	3	3	3	3	5	n.a.	n.a.
	163	167	177	177	175	181	3%	11%
% of TOTAL	13%	14%	14%	14%	14%	15%		

<sup>\*</sup> Percent change for WSU 1994 - 1996; Curriculum & Instruction data deleted from Science starting 1994. n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

### NUMBER OF MINORITY FACULTY

	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
KSU					75.50 TV		, cominge	70 Change
Science	36	40	40	39	42	44	5%	22%
Engineering	16	16	14	22	26	27	4%	n.a.
Math	6	8	9	9	8	7	n.a.	n.a.
Minority total	58	64	63	70	76	78	3%	34%
% of Total	9%	10%	10%	11%	12%	13%		
KU-Lawrence								
Science	24	25	24	27	24	27	13%	13%
Engineering	10	12	12	14	13	13	n.a.	n.a.
Math	5	6	9	9	9	9	n.a.	n.a.
Subtotal	39	43	45	50	46	49	7%	26%
% of Total	10%	11%	11%	12%	11%	12%		
WSU*								*
Science	15	16	17	13	15	13	n.a.	n.a.
Engineering	10	12	12	14	15	16	n.a.	n.a.
Math	7	7	6	8	9	9	n.a.	n.a.
Subtotal	32	35	35	35	39	38	-3%	9%
% of Total	15%	17%	18%	20%	22%	23%		
STATE								
Science	75	81	81	79	81	84	4%	12%
Engineering	36	40	38	50	54	56	4%	56%
Math	18	21	24	26	26	25	-4%	39%
TOTAL	129	142	143	155	161	165	2%	28%
% of TOTAL	10%	12%	12%	13%	13%	14%		

<sup>\*</sup> Percent change for WSU 1994 - 1996; Curriculum & Instruction data deleted from Science starting 1994. n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

FACULTY DEMOGRAPHICS FOR KSU, KU, WSU: ASSISTANT, ASSOCIATE, FULL PROFESSORS (Tenure Track)

# ACADEMIC YEAR BEGINNING FALL OF

TOTL. 678 158 836	750 9 4 68 3 834 10%	OTL. 87 5 92 5%	66 0 4 21 0 91 27%
70 30 100 30%	87 1 0 12 0 100 13%	WSU 7 23 0 23 23 0 0	14 0 0 9 0 23 39%
KU 217 56 273 273	244 6 0 20 1 271 10%	KU 133 4 4 37 11%	27 0 3 6 0 3 25% 3
1996 KSU 391 72 463 16%	419 2 4 36 2 4 63 10%	1996 KKSU 31 1 32 33	25 0 1 6 0 32 22% 2
TOTL 714 155 869 18%	786 5 3 70 3 <b>867</b> 9%	TOTL. 90 3 93 3%	67 0 2 24 0 93
WSU 74 33 107 31%	92 1 0 14 0 107 14%	WSU 7 25 0 25 25 0 25	16 0 0 9 0 25 36%
KU 225 58 283 20%	257 2 0 21 1 281 9%	KU 33 3 36 8%	27 0 1 8 0 36 25%
1995 KSU 415 64 479 13%	437 2 3 35 479 9%	1995 KSU 32 0 32 0%	24 0 1 7 7 0 32 32
TOTL 722 161 883 18%	804 3 71 2 883 9%	TOTL. 92 3 95 95	69 0 3 23 0 0 95
WSU 68 37 105 35%	92 0 0 13 0 105	25 0 25 25 25 0 0	17 0 1 7 0 25 32%
KU 236 60 296 20%	269 3 0 23 1 1 296 9%	KU 35 38 38 8%	29 0 1 8 0 38 38
1994 ". KSU 418 64 482 13%	443 0 3 35 1 1 482 8%	1994 KSU 32 0 32 032	23 0 1 8 0 32 28%
TOTL 739 163 902 18%	821 3 73 73 902 9%	70TL. 95 3 98 3%	74 0 4 20 0 98 24%
WSU 84 46 130 35%	113 1 0 16 0 130 13%	WSU 7 25 0 25 25 0%	19 0 1 5 0 25 24%
KU 243 57 300 19%	276 0 21 1 300 8%	KU 37 34 40 8%	31 0 2 7 7 0 40 23%
1993 KSU 412 60 472 13%	432 0 3 36 1 472 8%	1993 KSU 33 0 33 0%	24 0 1 8 0 33 27%
TOTL. 742 156 898 17%	818 3 4 73 1 899 9%	92 3 95 3%	74 0 4 17 0 95
WSU 83 49 132 37%	116 1 0 15 0 132 12%	26 0 26 0 26 0%	19 0 1 6 0 26 27%
KU 242 53 295 18%	270 2 0 22 1 1 295 8%	35 35 38 8%	32 0 2 4 0 38 16%
1992 KSU 417 54 471 11%	432 0 4 36 0 472 8%	1992 KSU 31 0 31 0%	23 0 1 7 0 31 26%
WSU TOTL. 86 752 52 151 138 903 38% 17%	812 3 3 68 1 887 887	WSU TOTL. 26 89 1 4 27 93 4% 4%	75 0 4 14 0 93 19%
WSU 86 52 138 38%	123 1 13 0 138 11%	26 26 1 27 27 4%	20 0 1 6 0 27 26%
KU 241 45 286 16%	262 0 22 22 0 <b>286</b> 8%	KU 34 3 37 8%	32 0 2 3 0 0 37 14%
1991 KSU 425 54 479 11%	427 0 2 2 33 34 463 8%	1991 KSU 29 0 29 0%	23 0 1 5 0 29 21%
SCIENCE* Male Female Total % Female	White African Amer. Hispanic Asian/Pac.Isl. Am.Ind/Alaskan Total ***	MATH Male Female Total % Female	White African Amer. Hispanic Asian/Pac.Isl. Am.Ind/Alaskan Total **

FACULTY DEMOGRAPHICS FOR KSU, KU, WSU: ASSISTANT, ASSOCIATE, FULL PROFESSORS (continued)

TOTL. 243 18 261 7%			1019 12 10 139 4 1184
WSU 41 45 45 9%		WSU 134 34 168 20%	
KU 82 5 8 87 87 6%	72 1 11 0 85 15%	KU 332 65 397 16%	
1996 KSU 120 9 129 7%	102 0 0 26 1 129 21%	1996 KSU 542 82 624 13%	
TOTL. 246 17 263 6%	209 3 2 48 1 1 263 21%	FOTL. 1050 175 1225 14%	1062 8 8 143 2 1223
43 3 46 7%	31 2 1 12 0 46 33%	WSU T 142 36 178 20%	139 3 1 35 0 178 1 22% 1
KU 81 6 87 7%	74 1 11 0 87 15%	KU 339 67 406 17%	358 3 2 40 1 404 11% 2
1995 KSU 122 8 130 6%	104 0 0 25 1 130 20%	1995 KSU 569 72 641	565 2 5 68 1 1 641 12% 1
TOTL. 246 13 259 5%	209 2 3 44 1 1 259	TOTL. 1 1060 177 1237 14%	1082 5 9 138 3 11237 113% 1
WSU '43 2 45 45 45	31 1 1 12 0 45 31%	WSU T 136 39 175 22%	140 1 2 32 0 175 1
KU 81 5 86 6%	72 1 1 12 0 86 16%	KU N 352 68 420 16%	370 4 2 43 1 420 12% 2
1994 KSU 122 6 128 5%	106 0 1 20 1 128 17%	1994 KSU 572 70 642	572 0 5 63 2 642 11% 1
TOTL. 215 11 226 5%	188 2 3 33 0 226 17%	FOTL. 1049 177 1226 14%	1083 5 10 126 2 1226 1276
WSU 43 2 45 45 4%	33 1 10 0 45 45	WSU T 152 48 200 24%	165 2 2 31 0 0 200 18%
KU 711 4 75 75 5%	63 1 1 10 0 75 16%	KU 351 64 415 15%	370 3 3 38 11 415
1993 KSU 101 5 106 5%	92 0 1 13 0 106 13%	1993 KSU 546 65 611 11%	548 0 5 57 611 10% 1
225 8 233 33%	192 2 33 35 0 232 17%	1059 167 167 1226 14%	1084 5 11 125 1 11226 12%
WSU 44 2 46 46 4%	34 1 10 0 46 26%	WSU 7 153 51 204 25%	169 2 2 2 31 0 204
KU 74 2 76 3%	64 1 1 10 0 76 16%	KU 351 58 409 14%	366 3 3 36 1 409 11%
1992 KSU 107 4 111 4%	94 0 1 15 0 110 15%	1992 KKSU 555 58 613 9%	549 0 6 58 0 613
TOTL. 227 8 235 3%	199 2 2 32 0 0 235 15%		1086 5 9 114 1 1215 1176
WSU TOTL. 42 227 2 8 44 235 5% 3%	34 1 1 8 8 0 44 23%	WSU TOTL. 154 1068 55 163 209 1231 26% 13%	177 2 3 27 0 209 15%
KU 74 2 75 76 3%	66 1 0 9 0 76 13%	KU 349 50 399 13%	360 34 0 399 10%
1991 KSU 111 4 1115 3%	99 0 15 0 115 14%	1991 KKSU 565 58 623 9%	549 0 4 53 1 607
ENGINEERING Male Female Total % Female	White African Amer. Hispanic Asian/Pac.Isl. Am.Ind./Alaskan Total ** % Minority	SCIENCE, MATH & ENGINEERING* Male Female Total % Female	White African Amer. Hispanic Asian/Pac.Isl. Am.Ind/Alaskan Total **

<sup>\*</sup> WSU data revised from previous reports. Curriculum and Instruction data deleted from WSU Science data starting 1994.

\*\* Total number of faculty by ethnicity does not always equal total number of faculty by sex because ethnicity data are not available in all cases.

### Personnel Totals by Year

Science* Math Engineering SEM TOTAL	1991 2,813 224 619 3,656	1992 3,103 235 588 3,926	1993 3,101 231 670 4,002	1994 3,073 239 758 4,070	1995 3,012 237 765 4,014	1996 3,003 229 710 3,942	% Change 1995-1996 -0% -3% -7% -2%	% Change 1991-1996 7% 2% 15% 8%
Professor Assoc. Professor Assist. Professor Academic Staff, Directors, &	557 334 340	558 322 346	555 326 345	559 327 351	553 351 321	542 354 293	-2% 1% -9%	-3% 6% -14%
Technical Staff  Subtotal	376 1,607	616 1,842	514 1,740	495 1,732	491 1,716	474 1,663	-3%	26%
Research Assoc. & Assist. Post Doctoral Grad. Teaching	341 45	352 58	344 65	310 52	293 65	328 73	12% 12%	3% -4% 62%
Assist. Student Research Assistants	846 817	789 885	868 985	911 1065	970 970	900 978	-7% 1%	6% 20%
Subtotal TOTAL	2,049 3,656	2,084 3,926	2,262 4,002	2,338 <b>4,070</b>	2,298 <b>4,014</b>	2,279 3,942	-1% -2%	11% 8%

<sup>\*</sup>WSU data (starting 1994) revised from previous reports. Science no longer includes Curriculum and Instruction.

SME PERSONNEL BY TITLE FOR KSU, KU, AND WSU

ACADEMIC YEAR BEGINNING FALL OF

		T.F.	388	242	907	302	317	73	517	156	102 3.003			TL.	38	39	15	17	0	0	17	7	1 229
											0 285 3.0			U TO	9	4	3	3	0	0	9	0	5 2
															_		200						1 0 7 55
				7.	22						8 74 6 1302												97
		;									28		1996	KSU	13	14	ν,	0	0		44		77
		- Ti									3,012			TOTL	37	37	19	18	0	0	124	_	1 237
		wso	3	43	39	2	0 1	0 :	114	-	279			MSU	9	12	7	CI	0	0 ;	77	0	0
	1.4.4	NO.	149	99	89	124	116	4 5	525	333	1364			KU	18	13	2	7 0	0 (	0 (	50		93
1005	5661	Dea	121	131	771	701	701	210	200	380	1369		1995	KSU	I3	77		- 0	0		00	0	83
	LOT	406	220	677	243	507	167	503	010	127	3,073			5									239
											237			wsu T	0 :	11	۰ :	1 0	0 0	25.0	6	> <	61
											1452												6
994											1384	700											81
	OTI.										3,101												231
	VSU T										263 3,		- 6	-									55 2
											1510			200									
993											1328 1	03		12.0									
1												10	1 7 7										
											3,103		TOT	-	32								
	MSC	30	40	62	12	_		92	∞	23	252		MSI	9	12	00	12	0		18	0	0	99
	KU	154	72	69	125	152	57	348	427	217	1621		KI	17	14	7	2	0	0	49	0	22	111
1992	KSU	221	125	125	92	177		173	296	21	1230	1992	KSII	13	9	12	0	0	0	37	0	0	89
	rotl.	399	244	260	222	316	45	596	640	91	2,813		OTI	36	34	23	14	0	0	117	0	0	224
	WSU TOTL. KSU	29	41	89	20	2		9/	1	18	255		WSU TOTI. KSU	S	14	80	12	0		24	0	0	63
	KU	158	89	09	111	133	45	334	365	99	1330		KU	17	14	9	_	0	0	50	0	0	88
1991	KSU	212	135	132	91	181		186	274	17	1228	1991	KSU	14	9	6	-	0		43	0	0	73
									0.040	*		1000											
ж ж			Prof.	Prof.	**	/Asst.	W27**	Assist.	Student Res. Asst.	Technical Staff ***	TOTAL				Prof.	Prof.	Staff	:/Asst.		Assist.	ss.Asst.	Staff	TOTAL
SCIENCE*		Professor	Associate Prof.	Assistant Prof.	Acad. Staff**	Res Assoc/Asst.	Post Docs	Teaching Assist.	dent R.	hnical	TC	MATH		Professor	Associate Prof.	Assistant Prof.	Academic Staff	Res. Assoc/Asst	Post Docs	Teaching Assist.	Student Res. Asst.	Technical Staff	TO
SC		Pro	ASS	ASS	Ac	Re	Pos	Te	Stu	Tec		MA		Pro	Ass	Ass	Aca	Res	Pos	Tea	Stuc	Tec	

SME PERSONNEL BY TITLE FOR KSU, KU, AND WSU (continued)

		KU WSU	43 12	27 15	17 18	14 16	3 0	0 0	63 56	19 37	7 0 9 193 154 710				46	69	53	73	0	0	191	328 62 978	0	494
	1996	KSU	61	31	37	13	00		47	164	363		1996											
		rotl.	116	74	73	36	15	П	187	243	20 <b>765</b>			rotl.										
		•									0 174			MSU T										177
		KU	47	26	19	14	2	-	45	34	14 197			KU										
100	1995	NSO	10	32	37	15	13	i	10	1/9	6 394		1995											
		LOIL.	011	90	- :	25	13	- :	104	544	758			IOIL. P										
	- 5										184		-	1 06 W										
	KI	43	2 5	000	07	7	ი -	1 7	- 2	21	182			216										
1004	Keri	50	33	37	17	† 0	10	7	186	001	392	1004	KCI											
	LOT	112	55	20	20	15		146	100	27	029			555										
	7										161		-	49										4
	KU	39	8	8	10	, «	. –	48	27	16	189			215										
1993	KSU	56	26	24	19	13	!	42	133	00	320	1993	KSU											
	TOTL.	117	53	63	37	22	-	80	154	53	588			558										
	MSD	17	6	20	7	7		35	27	13	135		1750	53										
	KU							44					KU 1						58		449		1925	
1992	KSU	57	28	26	18	12		6	105	5	260	1992	KSU	291	159	163	110	189	0	219	401	26	1558	
	COTL.	122	56	57	23	25	0	133	177	26	619		OTL.	557	334	340	259	341	45	846	817	117	3.656	
	WSU TOTL. KSU	18	6	17	7	3		69	30	13	166		WSU TOTL, KSU	52	2	93	39	5	0	169	31	31	484 3	
	KU	45	18	13	∞	4	0	43	29	Ξ	171		KU	220	100	4	120	137	45	427	394	19	1589	
1991	KSU	59	29	27	∞	18		21	118	2	282	1991	KSU	285	170	168	100	199	0	250	392	19	1583	
ENGINEERING *** 1997		Professor	Associate Prof.	Assistant Prof.	Academic Staff	Res. Assoc/Asst.	Post Docs	Teaching Assist.	Student Res. Asst.	Technical Staff	TOTAL	SCIENCE, MATH	& ENGINEERING*	Professor	Associate Prof.	Assistant Prof.	Academic Staff	Res. Assoc/Asst.	Post Docs	Teaching Assist.	Student Res. Asst.	Technical Staff	TOTAL	

\* WSU data revised from previous reports. Curriculum and Instruction data deleted from WSU Science data starting 1994.

\*\* Adjunct faculty, research professors (full/assoc/asst), asst/assoc/sr scientists, lecturers, instructors and directors are included under Academic Staff.

\*\*\* WSU's Directors and Post Doctoral Fellows are included under Technical Staff.

\*\*\*\* WSU's Engineering data include the Natl. Inst. for Aviation Res.

SME PERSONNEL\* DEMOGRAPHICS FOR KSU, KU, AND WSU

ACADEMIC YEAR BEGINNING FALL OF

	TOTL.	1,910	1.093	36%	2,301	56	57	430	∞	19%		FOTL.	177	52	23%	172	3	6	36	1	22%
				46%	225	4	C	51	2	21%					27%	37	2	4	12	0	33%
	KU	761	541	42%	1006	32	22	87	4	13%		KU	72	25	26%	74	0	4	11	0	17%
1996				30%						24%	1996				16%					Т	
				36%						22%					22%					_	
				44%						20%					25%					0	
	KU	803	561	41%						21%		15			26%					0	
1995				29%						23%	1995				16%					-	
				36%						22%			188							7	
		10000000	100	43%						19%		120	49							0	
				40%						22%			75							2	
1994	KSU	776	407	29%	0.020	-				24%	1994		4							0	
			1,089						6				186							2	
	WSU 1									16%			4							0	
	KU	917	593	39%	(521		0-21			22%			73							2	
1993						100				23%	1993		69							0	
	TOTL.								Ξ				158							7	
	MSU				212	2	-	35	2	16%					16%	43	П	3	6	0	23%
	KU								∞			KU	80		28%		2				30%
			173		199	5	2	68	-	13%	1992		31		0%0	23	0	-	7		26%
	WSU TOTL, KSU	1,594	759	32%	1,895					19%		WSU TOTL, KSU		36		137	2	9	35	-	24%
	WSU 1	138	117	46%	214	2	П	35	3	16%		L OSW	51		19%	47					25%
	KU	861	469	35%	1016							KU	64	24		99	0	2	19	-	25%
1991	KSU	595	173	23%				16		12%	1991	KSU	30	0	%0	24	0	-	5	0	20%
SCIENCE**		Male	Female	% Female	White	African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	% Minority	MATH		Male	Female	% Female	White	African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	% Minority

SME PERSONNEL\* DEMOGRAPHICS FOR KSU, KU, AND WSU (continued)

ENGINEERING	1991				1992				1993				1994			1	995			1	966			
	KSU	KU	WSU	WSU TOTL. KSU				TOTL.							VSU T									T
Male	134		147		138	168	121	427	289	160	144	593	348	162	168									535
Female	10	17	19	46	8			47							16									75
% Female	1%		11%	10%	2%			10%							%6	10% 1	12% 1	11%	9% 1	11% 1	10% 1	15% 8%		11%
White	110	100	00	315	110	140	0.1	220	100															
WILLIC	113	170	20	242	011	140	0	233	182															393
African Amer.	0	9	2	00	0	6	2	1	-															6
Hispanic	-	3	4	∞	П	3	_	5	2															7
Asian/Pac.Isl.	24	35	50	109	26	41	42	109	133															920
Am.Ind/Alaskan	0	-	12	13	П	0	6	10	2															
% Minority	17%	26%	41%	29%	19%	27%	40%	28%	43%	26%	20%	40%	46%	21%	52%	41% 4	45% 2	26% 6	60% 4	44% 4	48% 1	18% 57	57% 43	43%
SCIENCE, MATH	1991				1992				1993				1994			-	995			1	960			
& ENGINEERING	KSU		MSI	WSU TOTL. KSU	KSU		MSn	FOTL.	KSU				KSU		2	4	KSU				KSU			TI.
Male	759		336	336 2,176 757	757	1238	304	2,299	1308	1150	333	2,791		1101	351 2	2,841 1								722
Female	183	510	148	841	181		139	1,007	423															220
% Female	19%		31%	28%	19%		31%	30%	24%									37% 3	30% 3	30% 2		37% 32%		31%
White	808	1210	359	2,377			336	2,597	100			100												998
African Amer.	4	31	9	6 41	2	45	5	55	22	37	10	69	21	35	7	63								89
Hispanic	7	37	00	52			2	42																73
Asian/Pac.Isl.	105	299	96	500			98	589																42
Am.Ind./Alaskan		14	15	31			Ξ	23																12
% Minority	13%	24%	26%	21%	14%		24%	21%									28% 2	22% 3	36% 20	26% 29	29% 1	14% 34%	% 24%	%

\* Personnel includes faculty plus all others (academic staff, graduate teaching and research assistants, research associates and assistants, student research assistants, technical staff).

\*\* WSU data revised from previous reports. Curriculum and Instruction data deleted from WSU Science data starting 1994.

### SME PERSONNEL FOR KSU, KU, AND WSU BY AGE ACADEMIC YEAR BEGINNING THE FALL OF 1996

				AG	E RANG	GES				
KSU	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	TOTAL
SCIENCE										
Professor	0	0	0	2	21	29	54	52	53	211
Assoc Prof	0	0	4	36	40	18	26	12	8	144
Assist Prof	0	3	30	34	20	8	4	5	2	106
Subtotal	0	3	34	72	81	55	84	69	63	461
MATH										
Professor	0	0	0	1	2	2	1	5	2	13
Assoc Prof	0	0	0	6	1	2	3	2	0	14
Assist Prof	0	0	1	2	0	2	0	0	0	5
Subtotal	0	0	1	9	3	6	4	7	2	32
ENGINEERIN	G									
Professor	0	0	0	3	7	7	12	13	18	60
Assoc Prof	0	0	1	8	6	9	3	3	1	31
Assist Prof	0	2	18	8	4	2	1	1	1	37
Subtotal	0	2	19	19	17	18	16	17	20	128
SME										
Professor	0	0	0	6	30	38	67	70	73	284
Assoc Prof	0	0	5	50	47	29	32	17	9	189
Assist Prof	0	5	49	44	24	12	5	6	3	148
TOTAL	0	5	54	100	101	79	104	93	85	621
KU	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	
	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	TOTAL
KU SCIENCE Professor	<b>20-24</b>						THE STATE OF THE S			TOTAL
SCIENCE		25-29 0 0	0	3	9	23	37	31	44	TOTAL
SCIENCE Professor	0	0	0	3	9 20	23 14	37 8	31 5	44 2	TOTAL 147 58
SCIENCE Professor Assoc Prof	0	0	0 1 20	3 8 26	9 20 9	23 14 10	37 8 1	31 5 0	44 2 1	TOTAL 147 58 68
SCIENCE Professor Assoc Prof Assist Prof	0 0 0	0 0 1	0	3	9 20	23 14	37 8	31 5	44 2	TOTAL 147 58
SCIENCE Professor Assoc Prof Assist Prof Subtotal	0 0 0	0 0 1	0 1 20	3 8 26	9 20 9 38	23 14 10 47	37 8 1 46	31 5 0 36	44 2 1 <b>47</b>	147 58 68 273
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH	0 0 0 <b>0</b>	0 0 1 <b>1</b>	0 1 20 <b>21</b>	3 8 26 37	9 20 9 38	23 14 10 47	37 8 1 <b>46</b>	31 5 0 36	44 2 1 <b>47</b> 5	TOTAL  147 58 68 273
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor	0 0 0 <b>0</b>	0 0 1 1	0 1 20 <b>21</b>	3 8 26 <b>37</b>	9 20 9 <b>38</b> 2 3	23 14 10 <b>47</b> 3 0	37 8 1 46 3	31 5 0 36 5	44 2 1 47 5 5	147 58 68 273 19
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof	0 0 0 <b>0</b>	0 0 1 1 0 0	0 1 20 <b>21</b> 0 0	3 8 26 37	9 20 9 38	23 14 10 47 3 0	37 8 1 <b>46</b>	31 5 0 <b>36</b> 5 1	44 2 1 <b>47</b> 5 5 0	TOTAL  147 58 68 273 19 11 7
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof Assist Prof	0 0 0 0	0 0 1 1 0 0	0 1 20 <b>21</b> 0 0 2	3 8 26 37	9 20 9 <b>38</b> 2 3 0	23 14 10 <b>47</b> 3 0	37 8 1 46 3 1	31 5 0 36 5	44 2 1 47 5 5	147 58 68 273 19
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal	0 0 0 0	0 0 1 1 0 0	0 1 20 <b>21</b> 0 0 2	3 8 26 37	9 20 9 <b>38</b> 2 3 0	23 14 10 47 3 0	37 8 1 46 3 1	31 5 0 36 5 1 0 6	44 2 1 <b>47</b> 5 5 0	TOTAL  147 58 68 273 19 11 7
SCIENCE Professor Assoc Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal ENGINEERING	0 0 0 0	0 0 1 1 0 0 1 1	0 1 20 21 0 0 2 2	3 8 26 37 1 1 4 6	9 20 9 38 2 3 0 5	23 14 10 47 3 0 0 3	37 8 1 46 3 1 0 4	31 5 0 <b>36</b> 5 1	44 2 1 47 5 5 0 10	147 58 68 273 19 11 7 37
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal ENGINEERING	0 0 0 0 0 0 0	0 0 1 1 0 0 1 1	0 1 20 21 0 0 2 2	3 8 26 37 1 1 4 6	9 20 9 38 2 3 0 5	23 14 10 47 3 0 0 3	37 8 1 46 3 1 0 4	31 5 0 36 5 1 0 6	44 2 1 47 5 5 0 10	147 58 68 273 19 11 7 37 43 27
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal ENGINEERING Professor Assoc Prof	0 0 0 0 0 0 0 0	0 0 1 1 0 0 1 1 1	0 1 20 21 0 0 2 2 2	3 8 26 37 1 1 4 6	9 20 9 38 2 3 0 5	23 14 10 47 3 0 0 3 3	37 8 1 46 3 1 0 4	31 5 0 36 5 1 0 6	44 2 1 47 5 5 0 10	147 58 68 273 19 11 7 37
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal ENGINEERING Professor Assoc Prof Assist Prof	0 0 0 0 0 0 0 0	0 0 1 1 0 0 1 1 1	0 1 20 21 0 0 2 2 2	3 8 26 37 1 1 4 6	9 20 9 38 2 3 0 5	23 14 10 47 3 0 0 3 3 7	37 8 1 46 3 1 0 4 13 3 0	31 5 0 36 5 1 0 6	44 2 1 47 5 5 0 10	147 58 68 273 19 11 7 37 43 27 17
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal ENGINEERING Professor Assoc Prof Assist Prof Subtotal ENGINEERING Professor Assoc Prof Assist Prof Subtotal	0 0 0 0 0 0 0 0	0 0 1 1 0 0 1 1 1	0 1 20 21 0 0 2 2 2	3 8 26 37 1 1 4 6	9 20 9 38 2 3 0 5	23 14 10 47 3 0 0 3 3 7	37 8 1 46 3 1 0 4 13 3 0	31 5 0 36 5 1 0 6	44 2 1 47 5 5 0 10	147 58 68 273 19 11 7 37 43 27 17
SCIENCE Professor Assoc Prof Assist Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal ENGINEERING Professor Assoc Prof Assist Prof Subtotal SME	0 0 0 0 0 0 0 0	0 0 1 1 0 0 1 1 1	0 1 20 21 0 0 2 2 2 0 1 4 5	3 8 26 37 1 1 4 6	9 20 9 38 2 3 0 5 5 9 3 17	23 14 10 47 3 0 0 3 3 7 0 10	37 8 1 46 3 1 0 4 13 3 0 16	31 5 0 36 5 1 0 6	44 2 1 47 5 5 0 10 16 1 17	TOTAL  147 58 68 273  19 11 7 37  43 27 17 87
SCIENCE Professor Assoc Prof Subtotal MATH Professor Assoc Prof Assist Prof Subtotal ENGINEERING Professor Assoc Prof Assist Prof Subtotal SME Professor	0 0 0 0 0 0 0 0 0	0 0 1 1 0 0 1 1 0 0 2 2	0 1 20 21 0 0 2 2 2 0 1 4 5	3 8 26 37 1 1 4 6	9 20 9 38 2 3 0 5 5 9 3 17	23 14 10 47 3 0 0 3 3 7 0 10	37 8 1 46 3 1 0 4 13 3 0 16	31 5 0 36 5 1 0 6	44 2 1 47 5 5 0 10 16 1 17	TOTAL  147 58 68 273  19 11 7 37  43 27 17 87

### SME PERSONNEL FOR KSU, KU, AND WSU BY AGE (continued)

WSU	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	TOTAL
<b>SCIENCE</b>										
Professor	0	0	0	0	2	3	5	12	6	28
Assoc Prof	0	0	0	4	8	9	9	3	8	41
<b>Assist Prof</b>	0	1	6	6	4	3	4	4	5	33
Subtotal	0	1	6	10	14	15	18	19	19	102
MATH										
Professor	0	0	0	0	0	3	2	0	1	6
Assoc Prof	0	0	0	2	2	4	1	3	2	14
Assist Prof	0	0	1	1	0	1	0	0	0	3
Subtotal	0	0	1	3	2	8	3	3	3	23
ENGINEERI										
Professor	0	0	0	0	0	3	0	5	4	12
Assoc Prof	0	0	0	4	3	3	4	0	1	15
Assist Prof	0	1	3	11	2	1	1	0	0	19
Subtotal	0	1	3	15	5	7	5	5	5	46
SME	2390									
Professor	0	0	0	0	2	9	7	17	11	46
Assoc Prof	0	0	0	10	13	16	14	6	11	70
Assist Prof	0	2	10	18	6	5	5	4	5	55
TOTAL	0	2	10	28	21	30	26	27	27	171
STATE TOTA	ATC									
STATE TOTAL	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	TOTAL
SCIENCE	20-24	23-27	30-34	33-39	40-44	43-49	50-54	33-39	00+	TOTAL
Professor	0	0	0	5	32	55	96	95	103	386
Assoc Prof	0	0	5	48	68	41	43	20	18	243
Assist Prof	0	5	56	66	33	21	9	9	8	207
Subtotal	0	5	61	119	133	117	148	124	129	836
MATH				117	100	111	140	124	127	030
Professor	0	0	0	2	4	8	6	10	8	38
Assoc Prof	0	0	0	9	6	6	5	6	7	39
<b>Assist Prof</b>	0	1	4	7	0	3	0	0	0	15
Subtotal	0	1	4	18	10	17	11	16	15	92
ENGINEERI	NG									1-
Professor	0	0	0	3	12	13	25	24	38	115
Assoc Prof	0	0	2	17	18	19	10	4	3	73
Assist Prof	0	5	25	27	9	3	2	1	1	73
Subtotal	0	5	27	47	39	35	37	29	42	261
SME										
Professor	0	0	0	10	48	76	127	129	149	539
Assoc Prof	0	0	7	74	92	66	58	30	28	355
Assist Prof	0	11	85	100	42	27	11	10	9	295
TOTAL	0	11	92	184	182	169	196	169	186	1,189

### RESEARCH PERSONNEL\* RECEIVING FINANCIAL SUPPORT VS. GRADUATE ENROLLMENT

KSU						
	1991	1992	1993	1994	1995	1996
Supported	841	809	961	1,057	1,057	1,070
Enrolled	1,216	1,282	1,361	1,442	1,474	1,398
% Supported	69%	63%	71%	73%	72%	77%
KU						
	1991	1992	1993	1994	1995	1996
Supported	1,003	1,103	1,090	1,039	978	956
Enrolled	1,702	1,819	1,817	1,880	1,701	1,701
% Supported	59%	61%	60%	55%	57%	56%
WSU	¥					
	1991	1992	1993 1	1994** 1	995** 1	996**
Supported	205	172	211	242	263	253
Enrolled	1,000	968	1,017	1,078	950	1,102
% Supported	21%	18%	21%	22%	28%	23%
STATE	*					
_	1991	1992	19931	994** 1	995** 1	996**
Supported	2,049	2,084	2,262	2,338	2,298	2,279
Enrolled	3,918	4,069	4,195	4,400	4,125	4,201
% Supported	52%	51%	54%	53%	56%	54%

<sup>\*</sup>Includes research associates/assistants, post docs., graduate teaching assistants, student research assistants
\*\* WSU data revised from previous reports. Curriculum and Instruction data no longer included with Science.

### APPENDIX C

### **SEM Graduate Enrollment**

### SEM GRADUATE ENROLLMENT

KSU	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change*
			25.5		2,,,,	1220	no change	ne Change
Science	894	930	988	1,009	991	960	-3%	7%
Engineering	270	297	314	380	421	376	-11%	39%
Math	52	55	59	53	62	62	0%	19%
Subtotal	1,216	1,282	1,361	1,442	1,474	1,398	-5%	15%
KU-Lawrence								
Science	1,095	1,161	1,168	1,210	1,057	1,087	3%	-1%
Engineering	553	597	587	606	588	553	-6%	-1% 0%
Math	54	61	62	64	56	61	9%	13%
Subtotal	1,702	1,819	1,817	1,880	1,701	1,701	0%	-0%
Subtotal	1,702	1,017	1,017	1,000	1,701	1,701	0 70	-0 %
WSU*								
Science	694	641	623	641	511	663	30%	3%
Engineering	266	285	350	392	398	398	0%	2%
Math	40	42	44	45	41	41	0%	-9%
Subtotal	1,000	968	1,017	1,078	950	1,102	16%	2%
STATE								
Science	2,683	2,732	2,779	2,860	2,559	2,710	6%	1%
Engineering	1,089	1,179	1,251	1,378	1,407	1,327	-6%	22%
Math	146	158	165	162	159	164	3%	12%
TOTAL	3,918	4,069	4,195	4,400	4,125	4,201	2%	7%

<sup>\*</sup>Percent change for WSU 1994 - 1996; Curriculum and Instruction data deleted from Science starting 1994.

### WOMEN GRADUATE ENROLLMENT

KSU	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
Science	285	317	326	342	341	328	-4%	15%
Engineering	28	27	35	52	62	50	-19%	79%
Math	7	11	18	18	15	15	n.a.	n.a.
Subtotal	320	355	379	412	418	393	-6%	23%
% of Total	26%	28%	28%	29%	28%	28%		
KU-Lawrence								
Science	464	514	533	569	524	542	3%	17%
Engineering	75	80	84	92	88	90	2%	20%
Math	22	22	20	19	20	17	n.a.	n.a.
Subtotal	561	616	637	680	632	649	3%	16%
% of Total	33%	34%	35%	36%	37%	38%		
WSU*								
Science	522	484	411	447	403	464	15%	4%
Engineering	26	30	38	38	43	43	0%	13%
Math	11	16	17	18	13	13	n.a.	n.a.
Subtotal	559	530	466	503	459	520	13%	3%
% of Total	56%	55%	46%	47%	48%	47%		
STATE								
Science	1,271	1,315	1,270	1,358	1,268	1,334	5%	5%
Engineering	129	137	157	182	193	183	-5%	42%
Math	40	49	55	55	48	45	-6%	13%
TOTAL % of Total	1,440 37%	1,501 37%	1,482 35%	1,595 36%	1,509 37%	1,562 37%	4%	8%

<sup>\*</sup>Percent change for WSU 1994 - 1996; Curriculum and Instruction data deleted from Science starting 1994. n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

### MINORITY GRADUATE ENROLLMENT

KSU Science Engineering Math Subtotal % of Total KU-Lawrence	1991 * * * * *	1992 46 13 3 62 9%	1993 36 9 2 47 6%	1994 36 9 2 47 6%	1995 42 31 3 76 9%	1996 51 21 4 76 10%	1995-1996 % Change 21% n.a. n.a.	1992-1996 % Change* 11% n.a. n.a. 23%
Science Engineering Math Subtotal % of Total WSU*	43 19 2 64 7%	51 20 4 75 8%	57 26 5 <b>88</b> 9%	63 25 6 94 10%	61 29 2 <b>92</b> 10%	68 34 2 104 11%	11% 17% n.a. 13%	33% 70% n.a. 39%
Science Engineering Math Subtotal % of Total	38 15 1 54 7%	48 17 0 <b>65</b> <b>9</b> %	39 24 1 <b>64</b> <b>9</b> %	36 22 0 <b>58</b> 9%	30 29 2 <b>61</b> 9%	18 29 2 <b>49</b> 19%	-40 % 0 % n.a. -20 %	-50% 32% n.a. -16%
STATE  Science Engineering Math TOTAL % of TOTAL	* * * *	145 50 7 <b>202</b> 8%	132 59 8 <b>199</b> 8%	135 56 8 <b>199</b> <b>8</b> %	133 89 7 <b>229</b> 9%	137 84 8 <b>229</b> 11%	3% -6% n.a. 0%	-6% 68% n.a. 13%

<sup>\*</sup>KSU ethnic data are not available. Percent change calculated for 1992 to 1996. Unable to calculate State totals. Percent change for WSU 1994 to 1996; Curriculum and Instruction data deleted from Science starting 1994. n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# SME GRADUATE ENROLLMENT DEMOGRAPHICS FOR KSU, KU, AND WSU

1991-1996	% Change	-3%	5%	1%		*8	*								1991-1996	% Change	-12%	-13%	-12%		*							
1995-1996 1991-1996	% Change	7%	5%	%9			13%	3%	-7%	18%	n.a.	*	*		1995-1996	% Change	7%	%9-	3%		8%	n.a.	n.a.	n.a.	n.a.	*	*	
	TOTAL	1,376	1,334	2,710	49%		1,722	36	41	53	7	029	420	7%		TOTAL	119	45	164	27%	77	7	7	_	3	51	28	%6
	MSU	199	464	699	70%		663	4	9	7	1	-	201	3%		MSU	28	13	41	32%	18	-	-	0	0	1	21	10%
	KU	545	542	1,087	20%	1.5	548	20	22	22	4	252	219	11%		KU	44	17	61	28%	33	0	0	_		19	7	%9
1996	KSU	632	328	096	34%	1	511	12	13	24	2	398	0	%6	1996	KSU	47	15	62	24%	26	-	_	0	2	32	0	13%
	TOTAL	1,291	1,268	2,559	20%	1	1520	35	44	45	6	693	243	8%		COTAL	111	48	159	30%	71	3	2	_	1	51	30	%6
	MSU	108	403	511	2662		481	6	10	8	3	*	*	%9		WSU** TOTAI	28	13	41	32%	18	Т	1	0	0	0	21	10%
	KU	533	524	1,057	20%	00	489	18	19	20	4	264	243	11%		KU	36	20	99	36%	30	1	0	-	0	15	6	%9
1995	KSU	920	341	991	34%	1	220	8	15	17	2	399	0	1%	1995	KSU	47	15	62	24%	23	1	-	0	_	36	0	12%
	TOTAL	1,502	1,358	2,860	47%	901	1,598	34	46	43	12	743	384	8%		TOTAL	107	55	162	34%	54	7	0	4	7	100	53	13%
	MSD	194	447	641	20%	0	491	6	12	6	9	1	108	7%		**NSM	27	18	45	40%	5	0	0	0	0	1	40	%0
	KU	641	569	1,210	47%		221	17	17	25	4	320	276	10%		KU	45	19	64	30%	28	2	0	2	2	17	13	18%
1994	KSU	<b>L</b> 99	342	1,009	34%	0	220	8	17	6	2	423	0	%9	1994	KSU	35	18	53	34%	21	0	0	2	0	30	0	%6
	SCIENCE**	Male	Female	TOTAL	% Female	M. S.	wnite	African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority***		MATH	Male	Female	TOTAL	% Female	White	African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reporting	% Minority***

1991-1996		-19%	-42%	-22%			*									1991-1996	% Change	%9	8%	7%			*							
1995-1996	% Change	%9-	-5%	%9-			-1%	n.a.	n.a.	-12%	п.а.	*	*		700,	1995-1996	% Change	1%	4%	2%			8%	%0	-4%	1%	n.a.	*	*	
	TOTAL	1,144	183	1,327	14%		595	17	11	52	4	367	311	13%			TOTAL	2,639	1.562	4.201	37%		2,364	55	54	106	14	1,068	759	%6
	MSU	355	43	398	11%		120	9	_	20	2	ŀ	249	19%			WSU	582	520	1,102	47%		801	11	∞	27	3	İ	471	%9
	KU	463	90	553	16%		294	5	8	19	2	163	62	10%			KU	1,052	649	1,701	38%		875	25	30	42	7	434	288	11%
1996	KSU	326	50	376	13%		151	9	2	13	0	204	0	12%	1006	1990	KSU	1,005	393	1,398	28%		889	19	16	37	4	634	0	10%
	<b>FOTAL</b>	1,214	193	1,407	14%		909	17	10	59	3	373	339	13%			OTAL	2,616	1,509	4,125	37%		2,197	55	99	105	13	1,087	612	%6
	WSU** TOTAI	355	43	398	11%	,	170	9	1	20	2	0	249	19%			WSU** TOTAL	491	459	950	48%		619	16	12	28	5	0	270	%6
	KU	200	88	588	15%		302	3	9	19	1	167	06	%6				1,069	632	1,701	37%		821	22	25	40	5	446	342	10%
1995	KSU	359	62	421	15%	,	184	8	3	20	0	206	0	14%	1005	1775	KSU	1,056	418	1,474	28%		757	17	19	37	3	641	0	%6
	FOTAL	1,196	182	1,378	13%	i	2/1	9	6	38	3	404	347	%6			OTAL	2,805	1,595	4,400	36%		2,223	42	55	85	17	1,194	784	8%
	WSU** TOTAL	354	38	392	10%		171	3	1	16	2		249	15%			WSU** TOTAI	575	503	1,078	47%		673	12	13	25	8	ŀ	397	%6
	KU	514	92	909	15%	200	200	1	4	19	-	177	86	8%				1,200	089	1,880	36%	0	885	20	21	46	7	514	387	10%
1994	KSU	328	52	380	14%	,	144	2	4	3	0	227	0	%9	1004	1771	KSU	1,030	412	1,442	29%	i	(11)	10	21	14	2	089	0	%9
	ENGINEERING	Male	Female	TOTAL	% Female	1171	wille	African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reporting	% Minority***	SCIENCE MATH	Science, main	& ENGINEERING	Male	Female	TOTAL	% Female		White	African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reporting	% Minority***

\* Cannot calculate percent change: KU data are by fiscal year, KSU & WSU data by academic year (e.g., 1991 data are based upon fall 1990 enrollment).

\*\*\* Formula used: African American + Hispanic + Asian/Pacific Islander + American Indian/Alaskan Native divided by all these groups + White n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

<sup>\*\*</sup>WSU data revised from previous reports. Ethnicity data not reportable to any accuracy. Available data is by ethnic origin for US citizens only, and then only if the student declares it. KSU ethnic data are not available for 1991. WSU ethnic 1995 Science data for "nonresident alien" and "not reporting" are reflected in the "White" figures.

SME GRADUATE ENROLLMENT DEMOGRAPHICS FOR KSU, KU, AND WSU

	TAL	502	250	0000	098,	47%		,598	34	16	9 5	43	12	743	384	% %				LAL	107	¥	27	4%		24	,	પ	0	4	7	100	53	13%
		200			100	10000														TO				34%										1
	**NSM	192	177	+	641	70%		497	6	13	71	6	9	-	108	7%				WSU	27	18	2 4	40%		V	0 0	0 0	0	0	0	1	40	0%0
	KU	641	260	500	1,210	47%		551	17	17	71	C7	4	320	276	10%			j	KU	45	19	17	30%		28	3 0	1 0	0 (	2	7	17	13	18%
1994	KSU	199	342	1 000	1,009	34%	i	250	00	17		ν,	2	423	0	%9		1004	1794	KSU	35	18	23	34%		21		0 0	0 (	7	0	30	0	066
	IOTAL	1,509	1.270	0770	2,113	46%	,	1,032	42	42	30	6	6	793	222	7%			TAMOL	OIAL	110	55	165	33%		81	-	-		1	7	29	6	%6
TAGAN.	MSC	212	411	203	070	%99	543	243	16	13	ox		7 ;	41	0	7%			Wer	wso I	27	17	44	39%		23	0	-	٠ <	0 0	0	20	0	4%
11.2	NO	635	533	1 168	4,000	40%	2115	240	15	17	22	1 0	0 0	343	222	%6			LLI	NO.	4.5	20	62	32%		29	-	0	,	1 (	7	19	6	15%
1993	OCM	799	326	886	2000	33%	5/13	0+0	П	12	6	_	† 00	403	0	%9		1993	KCII	ocu.	41	18	59	31%		29	0	0		1 0	0 }	28	0	%9
TOTAL	7177	1,411	1,315	2.732	400	40%	1,626	010	59	45	35	0	750	(3)	202	8%			OTAL	100	109	49	158	31%		73	0	0	v	, ,	4 1	72	9	9%6
MSI	100	/CI	484	641	760	0/.0/	545		74	12	6	3	0 07	0	0	8%			MSII	70	07	16	42	38%		22	0	0	0		0 6	70	0	0%0
KI	647	1+0	514	1,161	440%	2/ 1	572	C .	71	17	20	2	336	000	707	8%			KU	20	000	77	19	36%	1	17	0	0	2	0	1 6	57	9	13%
1992 KSU	613	010	31/	930	340%	2	509	22	C7	13	9	4	375	3	0 20	8%		1992	KSU	77	11	=	25	20%	č	47	0	0	3	O	000	07	0	11%
TOTAL	1 417	1,112	1,2,1	2,683	47%	:	1,170	20	3 6	77	20	10	383	100	CCI	0%9			OTAL	106	40	7	146	27%	,	33	0	0	7	-	48	•	4 1	%/
MSU	172	1 0	776	694	75%		609	17	-	6	3	6	47		0 8	%9			L OSW	50	1	11	40	28%	1.0	CI	0	0	-	0	90	07	0 2	0%/
KU	631	464	+0+	1,095	42%		561	1.2	1 2	CI	17	_	336	155	001	1%			KU	32	22	7 1	24	41%	20	07	0	0	-	-	22	1 4	t 5	0%/
1991* KSU	609	300	203	894	32%		*										100	1991	KSU	45	7	- :	76	13%	*									
SCIENCE	Male	Female	- Ciniaio	IOIAL	% Female		White	African Amer.	Hisnanic	tuspanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Benorted	Of Minority **	70 IMINOFILY ** *			MATH	Male	Female	THEOL	IOIAL	% Female	White	A £ : A	Alrıcan Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Denorting	of Minority**	// MINOLINA

	FOTAL	1,196	182	1,378	13%	i	2/1	, 9	6	38	3	404	347	%6		FOTAL	2,805	1,595	4,400	36%		2,223	42	55	85	17	1,194	784	8%
					10%		171	3	1	16	2	-	249	15%			575	-		0.000		623	12	13	25	8	1	397	96
	KU	514	92	909	15%		300	П	4	19	-	177	86	8%		KU	1,200	089	1,880	36%		885	20	21	46	7	514	387	10%
1994	KSU	328	52	380	14%	,	144	2	4	3	0	227	0	%9	1994	KSU						715	10	21	14	2	089	0	%9
	TOTAL	1,094	157	1,251	13%	i	924	4	15	37	3	999	78	10%		TOTAL	2,713	1,482	4,195	35%		2,267	47	58	80	14	1,420	309	8%
				350			111	_	8	13	2	209	0	17%			551	10	-	- 0		683	17	22	21	4	270	0	%6
	KU	503	84	587	14%	000	205	1	5	19	_	181	78	8%		KU	1,180	637	1,817	35%		877	17	22	43	9	543	309	%6
1993	KSU	279	35	314	11%	105	133	2	2	5	0	170	0	%9	1993	KSU	982	379	1,361	28%		707	13	14	16	4	209	0	%9
	TOTAL	1,042	137	1,179	12%	172	100	6	6	30	2	495	73	8%		FOTAL	2,568	1,501	4,069	37%	,	2,260	89	51	70	13	1,326	281	8%
	WSU	255	30	285	11%	110	110	4	3	6	1	150	0	13%			438				,	685	28	15	18	4	218	0	9%6
	KU	517	80	597	13%	217	514	3	4	12	_	190	73	%9		KU	1,203	919	1,819	34%		913	15	21	34	5	550	281	8%
1992	KSU	270	27	297	%6	120	173	2	2	6	0	155	0	%6	1992	KSU	927	355	1,282	28%		299	25	15	18	4	558	0	%6
	TOTAL	096	129	1,089	12%	701	170	4	S	23	7	299	09	7%		TOTAL	2,478	1,440	3,918	37%	,	1,635	33	27	45	13	730	219	7%
	MSD	240	26	266	10%	113	711	3	2	6	_	139	0	12%		MSU	441	559	1,000	26%	i i	/34	20	Ξ	13	10	212	0	7%
	KU	478	75	553	14%	214	+10	_	3	14	-	160	09	%9		KU	1,141	561	1,702	33%		701	13	16	32	3	518	219	7%
1991	KSU	242	28	270	10%	*									1991	KSU	968	320	1,216	26%	4	+							
	ENGINEERING	Male	Female	TOTAL	% Female	White		African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reporting	% Minority***	SCIENCE, MATH	& ENGINEERING	Male	Female	TOTAL	% Female		wnite	African Amer.	Hispanic	Asian/Pac.Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reporting	% Minority***

\*KU data are by fiscal year, KSU & WSU data by academic year (e.g., 1991 data are based upon fall 1990 enrollment). KSU ethnic data are not available for 1991.

\*\*C & I data deleted from Science starting 1994. Ethnicity data not reportable to any accuracy. Available data is by ethnic origin for US citizens only, and then, only if the student declares it.

\*\*\* Formula used: African American + Hispanic + Asian/Pacific Islander + American Indian/Alaskan Native divided by all the groups + White

# APPENDIX D SEM Degrees Awarded

### SEM DEGREES AWARDED

TOTAL POPULATION	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
Ph.D. Masters Bachelors	182 559 2,723	236 621 3,123	197 675 3,039	218 787 3,205	238 828 3,140	241 869 3,075	1% 5% -2%	32% 55% 13%
TOTAL	3,464	3,980	3,911	4,210	4,206	4,185	-0%	21%
WOMEN								
Ph.D. Masters Bachelors  Subtotal % of Total	40 210 1,111 1,361 39%	60 202 1,233 1,495 38%	61 285 1,235 1,581 40%	57 327 1,257 1,641 39%	56 348 1,260 <b>1,664</b> <b>40</b> %	64 334 1,249 <b>1,647</b> <b>39</b> %	. 14% -4% -1%	60% 59% 12% 21%
MINORITIES *								
Ph.D. Masters Bachelors	1 16 147	2 15 172	11 34 154	9 29 218	26 37 269	19 58 311	-27% 57% 16%	* *
Subtotal % of Total	164 5%	189 5%	199 5%	256 6%	332 8%	388 9%	17%	*

<sup>\*</sup> KSU ethnic data for science and math are not available from the institution's database.

### SEM Ph.D. DEGREES AWARDED

TOTAL POPULATION	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
KSU	80	111	87	97	105	110	F. 01	
KU	93	112	91	97			5%	38%
WSU	9	13	19		113	108	-5%	16%
		13	19	24	20	23	13%	n.a.
TOTAL	182	236	197	218	238	241	1%	32%
WOMEN		at						
KSU	15	23	25	14	25	19		
KU	23	33	32	37	26	40	n.a.	n.a.
WSU	2	4	4	6	5		35%	74%
	-	7.	4	0	3	5	n.a.	n.a.
Subtotal	40	60	61	57	56	64	120	
% of Total	22%	25%	31%	26%	24%	27%	13%	60%
MINORITIES *								
KSU*	*	*	*	*	12	10		
KU	1	2	7	3	9	6		
WSU	0	0	4	6	5	3		
Subtotal	1	2	11	9	26	19	n.a.	n.a.
% of Total	1%	1%	6%	4%	11%	8%	******	п.а.

<sup>\*</sup> KSU ethnic data for science and math are not available from the institution's database. n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

### SEM Ph.D. DEGREES AWARDED

KSU							1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	65	94	70	75	78	84	8%	29%
Engineering	13	14	13	14	24	21	n.a.	n.a.
Math	2	3	4	8	3	5	n.a.	n.a.
Subtotal	80	111	87	97	105	110	5%	38%
								and the latest
<b>KU-Lawrence</b>							1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	76	89	69	73	97	92	-5%	21%
Engineering	16	18	21	19	14	15	n.a.	n.a.
Math	1	5	1	5	2	1	n.a.	n.a.
Subtotal	93	112	91	97	113	108	-4%	16%
WSU							1995-1996	1991-1996
Page 1000	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	5	5	5	9	4	4	n.a.	n.a.
Engineering	4	7	12	13	15	16	n.a.	n.a.
Math	0	1	2	2	1	3	n.a.	n.a.
Subtotal	9	13	19	24	20	23	15%	n.a.
KSU, KU, WSU C	OMBIN	NED						
	1001	4000				MINOR DIVIN	1995-1996	1991-1996
G :	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	146	188	144	157	179	180	1%	23%
Engineering	33	39	46	46	53	52	-2%	58%
Math	3	9	7	15	6	9	n.a.	n.a.
TOTAL	182	236	197	218	238	241	1%	32%

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

Ph.D. DEGREES EARNED BY WOMEN

KSU							1007 1004	922
	1991	1992	1993	1994	1995	1996	1995-1996	1991-1996
Science	13	20	25	14	21	1990	% Change	% Change
Engineering	2	2	0	0	3			
Math	0	1	0	0	1	0		
Subtotal	15	23	25	14	25	0		
			20	14	25	19	n.a.	n.a.
<b>KU-Lawrence</b>							A Marian Property Co.	
	1991	1992	1993	1994	1995	1007	1995-1996	1991-1996
Science	23	33	30	30	25	1996	% Change	% Change
Engineering	0	0	1	4		40	60%	74%
Math	0	0	1	3	1	0	n.a.	n.a.
Subtotal	23	33	32	37	0	0	n.a.	n.a.
	-		32	37	26	40	54%	74%
WSU								
	1991	1992	1993	1994	1995	1000	1995-1996	1991-1996
Science	1	2	2	5	3	1996	% Change	% Change
Engineering	1	2	0	1		2		
Math	0	0	2	0	2	2		
Subtotal	2	4	4	6	0 5	1		
	-	U.S.	-	O	5	5	n.a.	n.a.
KSU, KU, WSU	COMBIN	ED						
	4 8 8 7						1995-1996	1991-1996
0 :	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	37	55	57	49	49	61	24%	65%
Engineering	3	4	1	5	6	2	n.a.	n.a.
Math	0	1	3	3	1	1	n.a.	n.a.
TOTAL	40	60	61	57	56	64	14%	60%

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# Ph.D. DEGREES: MINORITIES

KSU*	1001		1 car i samuni e cincino				1995-1996	1991-1996
Science	1991	1992	1993	1994	1995	1996	% Change	% Change
	-	2007			6	6		8-
Engineering	0	0	1	2	6	4		
Math					0	0		
Subtotal	0	0	1	2	12	10	n.a.	n.a.
<b>KU-Lawrence</b>							1007 1004	828
	1991	1992	1993	1994	1995	1996	1995-1996	1991-1996
Science	1	1	6	1	8		% Change	% Change
Engineering	0	1	1	1	1	6		
Math	0	0	0	1	0	0		
Subtotal	1	2	7	3	9	0		
	-	-	. /	3	9	6	n.a.	n.a.
WSU							1007 1006	
	1991	1992	1993	1994	1995	1996	1995-1996	1991-1996
Science	0	0	1	2	0	0	% Change	% Change
Engineering	0	0	3	4	5	3		
Math	0	0	0	0	0	0		
Subtotal	0	0	4	6	5	3	1500 (1025)	
	-			U	3	3	n.a.	n.a.
KSII KII and W	SII COM	DIMED						
KSU, KU and WS	SU COM	BINED						
	1991	1003	1002	1001	2.2.2.0		1995-1996	1991-1996
Science			1993	1994	1995	1996	% Change	% Change
Engineering	1	1	7	3	14	12		
Math	0	1	5	7	12	7		
TOTAL	0	0	0	1	0	0		
TOTAL	1	2	12	11	26	19	n.a.	n.a.

<sup>\*1991-1994</sup> KSU ethnic data for science and math are not available from the institution's database. n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

SME Ph.D. DEGREES FOR KSU, KU, AND WSU: Phase 2

	1991-1996	% Ch			-23%		*								1991-1996	% Change			n.a.	,	<del>(</del>					ä	п.а.
7001	1995-1996	% Change	%8-	24%	1%		-15%	n.a.	n.a.	n.a.	n.a.	15%	11.4.		1995-1996	% Change			II.á.							,	П.А.
	T E CE	TOTAL	911	100	34%	ì	76	4 (	s (	0 (	4 5	17	14%		TOTAL	OIAL	0 -	7 0	11%	,	4 0	0 0	•	•	9 1	٠ ٥	%0
	Wer	001	71 (	7 =	20%	,	200			9 0	- 0	0	%0		Well	C	۱ -	- "	33%	C	0 0	0 0	0 0	0 0	) (r	0 0	* *
	KI	53	40	6	43%	33	20	) C	0 0	1 0	30	15	16%		KI	-	0	-	0%0	0	0	0	0	0	- 0	C	* * *
1996	KSII	65	10	84	23%	7	1+	1 C		0	37	0	13%	1996	KSU	5	0	· vo	%0	2	0	0	0	0	3	0	0.00
	TOTAL	130	49	179	27%	80	- 6	2	00	3	89	11	14%		TOTAL	S	2	7	29%	14	0	Τ	0	0	S	0	7%
	NSM	Г	3	4	75%	4	0	0	0	0	0	0	0%0		WSU	1	0	_	%0	0	0	0	0	0	-	0	%0
	KU	72	25	97	26%	46	0	2	3	3	35	11	15%		KU	2	0	7	%0	-	0	0	0	0	1	0	%0
1995	KSU	57	21	78	27%	39	-	0	5	0	33	0	13%	1995	KSU	2	7	4	20%	13	0	П	0	0	3	0	7%
	TOTAL	108	49	157	31%	44	0	0	3	0	33	2	%9		TOTAL	12	3	15	20%	2	0	0	0	1	4	0	33%
	MSU	4	5	6	26%	4	0	0	2	0	3	0	33%		MSD	2	0	7	0%0	0	0	0	0	0	2	0	%0
	ΚŪ	43	30	73	41%	40	0	0	-	0	30	2	2%		KU	7	3	w	%09	2	0	0	0	_	2	0	33%
1994	KSU	19	14	75	19%	*								1994	KSU	8	0	90	0%0	*							-20
	SCIENCE	Male	Female	TOTAL	% Female	Caucasian	African Amer.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority**		MATH	Male	Female	TOTAL	% Female	Caucasian	African Amer.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority**

1991-1996	% Change	%19-	n.a.	-58%		п.а.	n.a.	n.a.	п.а.	n.a.	-38%	n.a.		1991-1996	% Change	-25%	%09-	-32%		*							
1995-1996	% Change	%9	n.a.	-2%		п.а.	n.a.	n.a.	n.a.	n.a.	12%	n.a.		1995-1996	% Change	-3%	12%	1%		-22%	п.а.	n.a.	n.a.	n.a.	14%	n.a.	
	TOTAL	20	7	52	4%	14	1	0	9	0	29	2	33%		TOTAL	177	64	241	27%	92	w	3	6	2	113	17	17%
	MSU	14	2	16	13%	9		0	2	0	7	0_	33%		WSU	18	5	23	22%	6	1	0	2	0	Ξ	0	25%
	KU	15	0	15	0%0	9	0	0	0	0	7	2	0%0		KU	89	40	108	37%	38	2	0	2	2	47	17	14%
1996	KSU	21	0	21	0 %	2	0	0	4	0	15	0	% 19	1996	KSU	91	19	110	17%	45	2	3	5	0	55	0	18%
	TOTAL	47	9	53	11%	15	0	2	10	0	26	0	44%		TOTAL	182	57	239	24%	118	-	S	18	3	66	==	19%
	MSU	13	2	15	13%	4	0	2	3	0	9	0	%95		MSU	15	2	20	25%	00	0	2	3	0	7	0	38%
	KU	13	1	14	7%	5	0	0	1	0	∞	0	17%		KU	87	26	113	23%	52	0	2	4	3	44	11	15%
1995	X	21	3	24	13%	9	0	0	9	0	12	0	20%	1995	KSU	80	26	106	25%	58	1	-	11	0	48	0	18%
	TOTAL	4	S	46	11%	16	0	1	9	0	25	1	30%		TOTAL	161	57	218	26%	09	0	1	7	1	52	3	13%
	MSU	12	-	13	8%	4	0	_	3	0	5	0	20%		MSU	18	9	24	25%	8	0	$\vdash$	5	0	10	0	43%
	KU	15	4	19	21%	10	0	0	_	0	10	-	%6		KU	09	37	97	38%	52	0	0	2	1	42	3	5%
1994	KSU	14	0	14	0%0	2	0	0	7	0	10	0	20%	1994	KSU	83	14	97	14%	*							
	ENGINEERING	Male	Female	TOTAL	% Female	Caucasian	African Amer.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority**	SCIENCE, MATH,	& ENGINEERING	Male	Female	TOTAL	% Female	Caucasian	African Amer.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority**

<sup>\*</sup> KU data are by fiscal year. KSU and WSU data are by academic year. KSU ethnic data are not available from the institution's database.

\*\* Formula used: African American + Hispanic + Asian/Pacific Islander + American Indian/Alaskan Native divided by all these groups + Caucasian. n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

SME Ph.D. DEGREES FOR KSU, KU, AND WSU

	OTAL	130	49	179	27%		60	_	7	00	3	89	11	14%		OTAL	w	2	7	29%	14	0	Н	0	0	w	0	1%
	L USW	-	3	4	75%	7	+ (	0	0	0	0	0	0	060		WSU T	Т	0	1	0%0	0	0	0	0	0	-	0	%0
	KU	72	25	76	26%	46	7	0	2	3	3	35	11	15%		KU	2	0	7	0%0	-	0	0	0	0	1	0	%0
1995	KSU	57	21	78	27 %	20	60	-	0	5	0	33	0	13%	1995	KSU	2	2	4	20%	13	0	1	0	0	3	0	1%
	TOTAL	108	49	157	31%	7	F	0	0	3	0	33	2	%9		FOTAL	12	3	15	20%	7	0	0	0	1	4	0	33%
	MSU		5	6	26%	7	+ <	0	0	2	0	3	0	33%		MSU	2	0	2	%0	0	0	0	0	0	2	0	0%0
	KU	43	30	73	41%	40	2	0	0	-	0	30	2	2%		KU	2	3	S	%09	2	0	0	0	П	2	0	33%
1994	KSU	61	14	75	19%	*							13		1994	KSU	8	0	90	0%0	*							
	TOTAL	87	57	144	40%	17	•	7	Т	4	0	18	7	13%		TOTAL	4	3	7	43%	1	0	0	0	0	7	0	0%0
	MSU	3	2	5	40%	۲		_	0	0	0	_	0	25%		WSU	0	2	2	100%	1	0	0	0	0	П	0	0%0
	KU	39	30	69	43%	77		-	-	4	0	17	2	12%		KU V	0	Т	1	100%	0	0	0	0	0	_	0	0%0
1993	KSU	45	25	70	36%	*									1993	KSU	4	0	4	%0	*							
	TOTAL		55			64	, -	<b>T</b>	0	0	0	28	1	2%	-	OTAL ]	œ	-	6	11%	4	0	0	0	0	7	0	%0
	L OSW	3	2	w	40%	4		0	0	0	0	-	0	0%0		WSU T	П	0	-	%0	_	0	0	0	0	0	0	0%0
	KU V		33		37%	09	-	-	0	0	0	27	_	2%		KU V	5	0	w	%0	3	0	0	0	0	2	0	%0
1992	KSU	74	20	94	21%	*									1992	KSU	2	_	3	33%	*							
5,1	KU* WSU*TOTAL KSU	109	37	146	25%	64	-	1	0	0	0	16	0	2%		WSU TOTAL KSU	3	0	3	0%0	-	0	0	0	0	0	0	%0
	NSU*7	4	-	S	20%	5	C	0	0	0	0	0	0	0%0		VSU T	0	0	0	ERR	0	0	0	0	0	0	0	%0
	KU*	53	23	92	30%	59	-	4	0	0	0	16	0	2%		KU V	-	0	П	0%0	-	0	0	0	0	0	0	%0
	KSU	52	13	65	20%	*									1991	KSU	2	0	7	0%0	*							
	SCIENCE	Male	Female	TOTAL	% Female	Caucasian	African Amer	Anican Anich.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority**		MATH	Male	Female	TOTAL	% Female	Caucasian	African Amer.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority

	TOTAL	47	9	53	11%	15	s			0			44%		11000	TOTAL	182	27	239	24%	118	-	S	18	3	66	11	19%
	MSU	13	2	15	13%	4	0	2	3	0	9	0	26%		140/44	WSC	15	5	20	25%	00	0	2	3	0	7	0	38%
	KU	13	_	14	7%	5	0	0	1	0	00	0	17%			KU	87	26	113	23%	52	0	2	4	3	44	1	15%
1995	KSU	21	3	24	13%	9	0	0	9	0	12	0	20%	1005	5661	-		26			58	-	-	1	0	48	0	18%
	TOTAL	41	w	46	11%	16	0	1	9	0	25	1	30%		1 1 1 1	TOTAL	191	57	218	26%	09	0	1	7	1	52	3	13%
	MSU	12	1	13	8%	4	0	1	3	0	5	0	20%		140/11	MSC	18	9	24	25%	∞	0	_	5	0	10	0	43%
	KU	15	4	19	21%	10	0	0	1	0	10	1	%6		1771	KU	09	37	46	38%	52	0	0	2	1	42	3	2%
1994	KSU			14		2	0	0	2	0	10	0	20%	1004	1701	KSC	83	14	46	14%	*							
	TOTAL	45	1	46	2%	18	0	1	4	0	23	0	22%		TAMOU	IOIAL	136	19	197	31%	64	7	2	7	0	33	2	15%
	MSU	12	0	12	0%0	5	0	0	3	0	4	0	38%				15	4	19	21%	6	-	0	3	0	9	0	31%
		20	1	21	5%	Ξ	0	1	0	0	6	0	8%		11.71	NO.	59	32	91	35%	55	-	2	4	0	27	2	11%
1993	KSU	13	0	13	0%0	2	0	0	-	0	10	0	33%	1003	CCCI	KSC	62	25	87	29%	*							
	TOTAL KSU	35	4	39	10%	11	0	0	1	0	19	0	8%			-	176	09	236	25%	26	П	0	1	0	38	1	3%
	MSD	2	2	7	29%	-	0	0	0	0	9	0	0%0			WSC	6	4	13	31%	9	0	0	0	0	7	0	%0
		18	0	18	0%0	7	0	0	-	0	7	0	13%				79	33	112	29%	70	-	0	-	0	31	П	3%
1992	KSU	12	7	14	14%	3	0	0	0	0	11	0	0%0	1002	II SZI	NSO	88	23	111	21%	*							
	KU WSU TOTAL KSU	30	3	33	066	12	0	0	0	0	21	0	0.60		TOT INCL ITOT ITA	IOIAL	142	40	182	22%	75	-	0	0	0	56	0	1%
	MSU	3	-	4	25%	2	0	0	0	0	7	0	0%0		WCT1	MSO	7	2	6	22%	7	0	0	0	0	2	0	%0
	KU	16	0	16	%0	∞	0	0	0	0	00	0	0%0		LIL	NO	70	23	93	25%	89	-	0	0	0	24	0	1%
1991	KSU	1	2	13	15%	2	0	0	0	0	Ξ	0	0%0	1001	VCI	NSO	65	15		19%	*							
	ENGINEERING	Male	Female	TOTAL	% Female	Caucasian	African Amer.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority	SCIENCE MATH 1991	6. ENICINEEDING VOIL	& ENGINEERING	Male	Female	TOTAL	% Female	Caucasian	African Amer.	Hispanic	Asian/Pac. Isl.	Am.Ind/Alaskan	Nonresident Alien	Not Reported	% Minority

\* KU data are by fiscal year. KSU and WSU data are by academic year. KSU ethnic data are not available from the institution's database.

<sup>\*\*</sup> Formula used: African American + Hispanic + Asian/Pacific Islander + American Indian/Alaskan Native divided by all groups.

# SEM MASTERS DEGREES

KSU	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996
Science	113	147	143	175	151	153	1%	% Change
Engineering	64	70	67	76	114	111	-3%	35%
Math	2	7	4	9	4	13	n.a.	73%
Subtotal	179	224	214	260	269	277	3%	n.a.
					_0>	277	3%	55%
<b>KU-Lawrence</b>							1005 1006	4004
	1991	1992	1993	1994	1995	1996	1995-1996	1991-1996
Science	129	143	119	144	142	138	% Change	% Change
Engineering	94	112	116	95	118		-3%	7%
Math	12	14	6	12	9	136	15%	45%
Subtotal	235	269	241	251	269	6	n.a.	n.a.
		-02		231	209	280	4%	19%
WSU							400 = 400	
	1991	1992	1993	1994	1995	1007	1995-1996	1991-1996
Science	91	78	164	190		1996	% Change	% Change
Engineering	53	48	48	78	194	207	7%	127%
Math	1	2	8		87	100	15%	89%
Subtotal	145	128	220	8	9	5	n.a.	n.a.
	145	120	220	276	290	312	8%	115%
KU, KSU, AND V	VSU							
COMBINED							400# 4004	warrance or occurrence
	1991	1992	1993	1994	1995	1007	1995-1996	1991-1996
Science	333	368	426	509		1996	% Change	% Change
Engineering	211	230	231	249	487	498	2%	50%
Math	15	23	18		319	347	9%	64%
TOTAL	559	621		29	22	24	9%	n.a.
	337	041	675	787	828	869	5%	55%

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# MASTERS DEGREES EARNED BY WOMEN

KSU							1995-1996	1001 1007
	1991	1992	1993	1994	1995	1996	% Change	1991-1996
Science	47	59	62	75	67	61	-9%	% Change
Engineering	7	6	7	9	24	17	-9%	30%
Math	0	1	3	6	2	5		n.a.
Subtotal	54	66	72	90	93	83	n.a.	n.a.
				70	75	03	-11%	54%
<b>KU-Lawrence</b>							1007 1004	
	1991	1992	1993	1994	1995	1996	1995-1996	1991-1996
Science	64	59	60	74	73	61	% Change	% Change
Engineering	7	17	16	12	15	29	-16%	-5%
Math	6	5	2	4	4	3	n.a.	n.a.
Subtotal	77	81	78	90	92	93	n.a.	n.a.
				70	12	93	1%	21%
WSU							1995-1996	1001 1007
	1991	1992	1993	1994	1995	1996	% Change	1991-1996
Science	73	52	132	138	144	148	3%	% Change
Engineering	6	3	2	4	16	7	n.a.	103%
Math	0	0	1	5	3	3		n.a.
Subtotal	79	55	135	147	163	158	n.a. -3%	n.a.
					105	156	-3%	100%
KU, KSU, AND V	VSU							
COMBINED							1995-1996	1001 1004
	1991	1992	1993	1994	1995	1996	% Change	1991-1996
Science	184	170	254	287	284	270	-5%	% Change
Engineering	20	26	25	25	55	53	-3% -4%	47%
Math	6	6	6	15			5,1700	165%
	O	U	0	1.0	9	11		49. (0)
TOTAL	210	202	285	327	9 <b>348</b>	11 <b>334</b>	n.a. -4%	n.a. 59%

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# MASTERS DEGREES: MINORITIES

KSU*	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
Science	2	2			2	9		
Engineering	2	3	1	1	10	5		
Math	2	2			0	1		
Subtotal	2	3	1	1	12	15	n.a.	n.a.
							1995-1996	1991-1996
<b>KU-Lawrence</b>	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	4	3	6	7	4	6		
Engineering	6	1	5	4	2	4		
Math	0	0	0	0	1	1		
Subtotal	10	4	11	11	7	11	n.a.	n.a.
WSU							1995-1996	1991-1996
300000	1991	1992	1993	1994	1995	1996	1995-1996 % Change	1991-1996 % Change
WSU Science	1991 1	<b>1992</b> 5	<b>1993</b> 14	<b>1994</b> 11	<b>1995</b> 14	<b>1996</b> 21		
300000				200.000				
Science	1	5	14	11	14	21		
Science Engineering	1 3	5 3	14	11 6	14 3	21 10		
Science Engineering Math	1 3 0	5 3 0	14 7 1	11 6 0	14 3 1	21 10 1	% Change	% Change
Science Engineering Math	1 3 0 4	5 3 0	14 7 1	11 6 0	14 3 1	21 10 1	% Change	% Change
Science Engineering Math Subtotal	1 3 0 4	5 3 0 <b>8</b>	14 7 1	11 6 0	14 3 1	21 10 1	% Change	% Change
Science Engineering Math Subtotal KSU, KU, AND V	1 3 0 4 WSU	5 3 0	14 7 1	11 6 0	14 3 1	21 10 1	% Change	% Change
Science Engineering Math Subtotal  KSU, KU, AND V COMBINED  Science	1 3 0 4 WSU 1991 5	5 3 0 8 1992 8	14 7 1 22 1993 20	11 6 0 <b>17</b>	14 3 1 18	21 10 1 32	% Change n.a. 1995-1996	% Change n.a. 1991-1996
Science Engineering Math Subtotal KSU, KU, AND V COMBINED	1 3 0 4 WSU	5 3 0 8	14 7 1 22	11 6 0 17	14 3 1 18	21 10 1 32	% Change  n.a.  1995-1996 % Change	% Change  n.a.  1991-1996 % Change
Science Engineering Math Subtotal  KSU, KU, AND V COMBINED  Science	1 3 0 4 WSU 1991 5	5 3 0 8 1992 8	14 7 1 22 1993 20	11 6 0 17 1994 18	14 3 1 18 1995 20	21 10 1 32 1996 36	% Change n.a.  1995-1996 % Change 80%	% Change n.a. 1991-1996 % Change *

<sup>\*1991-1994</sup> KSU ethnic data for science and math are not available from institution's database.

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# SEM BACHELOR DEGREES

							1995-1996	1991-1996
KSU	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	571	618	721	788	745	675	-9%	18%
Engineering	352	429	416	403	387	397	3%	13%
Math	12	19	7	12	15	8	n.a.	n.a.
Subtotal	935	1,066	1,144	1,203	1,147	1,080	-6%	16%
ZII I								
KU-Lawrence	1001	1003	1002	1004	1005	100<	1995-1996	1991-1996
G :	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	894	1,037	1,078	1,091	1,096	1,079	-2%	21%
Engineering	283	239	295	311	293	265	-10%	-6%
Math	33	26	26	31	18	23	28%	-30%
Subtotal	1,210	1,302	1,399	1,433	1,407	1,367	-3%	13%
WSU							1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	421	456	333	375	399	412	3%	-2%
Engineering	143	131	147	182	169	194	15%	36%
Math	14	14	16	12	18	22	22%	n.a.
Subtotal	578	601	496	569	586	628	7%	9%
KSU, KU, AND	WSII							
COMBINED	1150						1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	1,886	2,111	2,132	2,254	2,240	2,166	-3%	
Engineering	778	799	858	896			1,60,000	15%
Math					849	856	1%	10%
	59	59	49	55	51	53	4%	-10%
TOTAL	2,723	2,969	3,039	3,205	3.140	3.075	-2%	13%

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# BACHELOR DEGREES EARNED BY WOMEN

			W				1995-1996	1991-1996
KSU	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	223	248	338	343	296	293	-1%	31%
Engineering	44	56	55	53	50	51	2%	16%
Math	4	7	6	5	3	5	n.a.	n.a.
Subtotal	271	311	399	401	349	349	0%	29%
<b>KU-Lawrence</b>							1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	459	516	555	556	579	573	-1%	25%
Engineering	34	37	40	42	60	46	-23%	35%
Math	12	10	9	9	5	6	n.a.	n.a.
Subtotal	505	563	604	607	644	625	-3%	24%
			3.6.5					
WSU						200	1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	312	325	206	226	238	256	8%	-18%
Engineering	15	14	17	19	21	12	n.a.	n.a.
Math	8	4	9	4	8	7	n.a.	n.a.
Subtotal	335	343	232	249	267	275	3%	-18%
KSU, KU, AND V	VSU							
COMBINED							1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	994	1089	1099	1125	1113	1122	1%	13%
Engineering	93	107	112	114	131	109	-17%	17%
Math	24	21	24	18	16	18	n.a.	n.a.
TOTAL	1,111	1,217	1,235	1,257	1,260	1,249	-1%	12%

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# **BACHELOR DEGREES: MINORITIES**

							1995-1996	1991-1996
KSU*	1991	1992	1993	1994	1995	1996	% Change	% Change
Science					37	48	30%	*
Engineering	19	21	21	24	34	17	n.a.	n.a.
Math					3	1	n.a.	n.a.
Subtotal	19	21	21	24	74	66	-11%	*
							1995-1996	1991-1996
<b>KU-Lawrence</b>	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	49	73	57	92	113	116	3%	137%
Engineering	21	21	18	20	13	26	100%	24%
Math	2	1	2	0	1	5	n.a.	n.a.
Subtotal	72	95	77	112	127	147	16%	104%
WSU							1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	36	30	36	55	47	56	19%	56%
Engineering	20	24	17	24	19	30	58%	50%
Math	0	2	3	3	2	12	n.a.	n.a.
Subtotal	56	56	56	82	68	98	44%	75%
KSU, KU AND W	'SU							
<b>COMBINED</b>							1995-1996	1991-1996
	1991	1992	1993	1994	1995	1996	% Change	% Change
Science	85	103	93	147	197	220	12%	*
Engineering	60	66	56	68	66	73	11%	22%
Math	2	3	5	3	6	18	n.a.	n.a.
TOTAL	147	172	154	218	269	311	16%	*

<sup>\*1991-1994</sup> KSU ethnic data for science and math are not available from institution's database.

n.a.=not applicable. Percent change not calculated. Numbers are too small to generate a meaningful percent change.

# APPENDIX E NSF Grant Activity

### NSF GRANT ACTIVITY: PERCENT CHANGE

Funded plus Not Funded:

			AMOUNT			'94 to 95	'91 to 95
	1991	1992	1993*	1994	1995*	% Change	% Change
Science	\$26,495,957	\$34,262,102	\$21,425,538	\$34,210,388	\$37,908,632	11%	43%
Math	\$3,156,013	\$5,956,317	\$1,589,277	\$2,361,476	\$2,223,516	-6%	-30%
Engineering	\$4,981,159	\$9,700,067	\$14,476,516	\$13,738,848	\$18,999,378	38%	281%
TOTAL	\$34,633,129	\$49,918,486	\$37,491,331	\$50,310,712	\$59,131,526	18%	71%
w/o NSF EPSC	CoR		\$33,051,331		\$56,075,126	11%	62%
			NUMBER			'94 to 95	'91 to 95
	1991	1992	1993	1994	1995	% Change	% Change
Science	141	164	133	175	130	-26%	-8%
Math	33	45	20	31	17	-45%	-48%
Engineering	53	61	71	79	63	-20%	19%
TOTAL	227	270	224	285	210	-26%	-7%
Funded:							
			AMOUNT			'94 to 95	'91 to 95
G t	1991	1992	1993*	1994	1995*	% Change	% Change
Science	\$6,312,926	\$6,151,310	\$5,075,751	\$9,542,850	\$9,852,951	3%	56%
Math	\$251,974	\$979,547	\$739,258	\$522,730	\$380,016	-27%	51%
Engineering	\$480,385	\$689,266	\$5,136,757	\$1,292,677	\$4,485,410	247%	834%
TOTAL	\$7,045,285	\$7,820,123	\$10,951,766	\$11,358,257	\$14,718,377	30%	109%
w/o NSF EPSC	COR		\$6,511,766		\$11,661,977	3%	66%
	single 70	/ A44/2003k	NUMBER			'94 to 95	'91 to 95
6.1	1991	1992	1993	1994	1995	% Change	% Change
Science	50	44	43	69	68	-1%	36%
Math	7	12	9	9	7	-22%	0%
Engineering	8	13	9	17	31	82%	288%
TOTAL	65	69	61	95	106	12%	63%

<sup>\*</sup>Includes NSF EPSCoR. 1995 NSF EPSCoR = \$3,056,400. 1993 NSF EPSCoR=\$4,440,000.

#### NSF GRANTS AWARDED: PERCENT CHANGE

						1991-1995
KSU	1991	1992	1993	1994	1995	% Change
Science	\$2,907,520	\$3,370,874	\$1,889,133	\$6,184,489	\$3,767,038	30%
Engineering	\$103,901	\$425,544	\$167,096	\$597,129	\$632,701	509%
Math	\$73,445	\$135,134	\$40,668	\$219,972	\$183,900	150%
TOTAL	\$3,084,866	\$3,931,552	\$2,096,897	\$7,001,590	\$4,583,639	49%
KU	1991	1992	1993*	1994	1995*	% Change
Science	\$3,345,750	\$2,682,032	\$2,806,886	\$2,798,070	\$5,294,973	58%
Engineering	\$376,484	\$24,510	\$4,859,208	\$685,043	\$3,659,150	872%
Math	\$111,775	\$700,766	\$525,478	\$151,421	\$61,627	-45%
TOTAL	\$3,834,009	\$3,407,308	\$8,191,572	\$3,634,534	\$9,015,750	135%
w/o NSF EPSCoR			\$3,751,572		\$5,959,350	55%
WSU	1991	1992	1993	1994	1995	% Change
Science	\$59,656	\$98,404	\$379,732	\$560,291	\$790,940	1226%
Engineering**	\$0	\$239,212	\$110,453	\$10,505	\$193,559	-19%
Math	\$66,754	\$143,647	\$173,112	\$151,337	\$134,489	101%
TOTAL	\$126,410	\$481,263	\$663,297	\$722,133	\$1,118,988	785%
State Total:	1991	1992	1993*	1994	1995*	% Change
Science	\$6,312,926	\$6,151,310	\$5,075,751	\$9,542,850	\$9,852,951	56%
Engineering	\$480,385	\$689,266	\$5,136,757	\$1,292,677	\$4,485,410	834%
Math	\$251,974	\$979,547	\$739,258	\$522,730	\$380,016	51%
TOTAL	\$7,045,285	\$7,820,123	\$10,951,766	\$11,358,257	\$14,718,377	109%
w/o NSF EPSCoR			\$6,511,766		\$11,661,977	66%

<sup>\*</sup>Includes NSF EPSCoR. 1995 NSF EPSCoR = \$3,056,400. 1993 NSF EPSCoR=\$4,440,000.

 $Note: All\ KU\ grant\ data\ revised\ from\ previous\ reports.$ 

<sup>\*\* 1995</sup> compared to 1992: percent change

		NUM	BER			AMOUNT		
SCIENCE	KSU	KU	wsu	TOTAL	KSU	KU	WSU	TOTAL
Awarded	29	26	13	68	\$3,767,038	\$5,294,973	\$790,940	\$9,852,951
Not Funded	54	62	14	130	\$17,221,017	\$16,996,831	\$3,690,784	\$37,908,632
Total	83	88	27	198	\$20,988,055	\$22,291,804	\$4,481,724	\$47,761,583
% Awarded	35%	30%	48%	34%	18%	24%	18%	21%
Avg. \$ Awarded					\$129,898	\$203,653	\$60,842	\$144,896
MATH	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	3	1	3	7	\$183,900	\$61,627	\$134,489	\$380,016
Not Funded	7	5	5	17	\$771,898	\$881,049	\$570,569	\$2,223,516
Total	10	6	8	24	\$955,798	\$942,676	\$705,058	\$2,603,532
% Awarded	30%	17%	38%	29%	19%	7%	19%	15%
Avg. \$ Awarded					\$61,300	\$61,627	\$44,830	\$54,288
ENGINEERING	KSU	KU	WSU	TOTAL	KSU	KU*	WSU	TOTAL
Awarded	13	5	13	31	\$632,701	\$3,659,150	\$193,559	\$4,485,410
Not Funded	32	17	14	63	\$8,061,820	\$7,947,901	\$2,989,657	\$18,999,378
Total	45	22	27	94	\$8,694,521	\$11,607,051	\$3,183,216	\$23,484,788
% Awarded	29%	23%	48%	33%	7 %	32%	6%	19%
Avg. \$ Awarded					\$48,669 w/o NSF EPSCoR	\$731,830 \$8,550,651	\$14,889	\$144,691 \$20,428,388
								4
OTHER	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	2	0	0	2	\$104,910	\$0	\$0	\$104,910
Not Funded	5	4	0	9	\$12,138,570	\$281,308	\$0	\$12,419,878
Total	7	4	0	11	\$12,243,480	\$281,308	\$0	\$12,524,788
% Awarded	29%	0%	**	18%	1%	0 %	**	1%
Avg. \$ Awarded					\$52,455	**	**	\$52,455
SME TOTAL	KSU	KU	WSU	TOTAL	KSU	KU*	WSU	TOTAL
Awarded	45	32	29	106	\$4,583,639	\$9,015,750	\$1,118,988	\$14,718,377
Not Funded	93	84	33	210	\$26,054,735	\$25,825,781	\$7,251,010	\$59,131,526
Total	138	116	62	316	\$30,638,374	\$34,841,531	\$8,369,998	\$73,849,903
% Awarded	33%	28%	47%	34%	15%	26%	13%	20%
Avg. \$ Awarded					\$101,859	\$281,742	\$38,586	\$138,853
					w/o NSF EPSCoR	\$31,785,131		\$70,793,503
SMEO TOTAL	KSU	KU	WSU	TOTAL	KSU	KU*	WSU	TOTAL
Awarded	47	32	29	108	\$4,688,549	\$9,015,750	\$1,118,988	\$14,823,287
Not Funded	98	88	33	219	\$38,193,305	\$26,107,089	\$7,251,010	\$71,551,404
Total	145	120	62	327	\$42,881,854	\$35,122,839	\$8,369,998	\$86,374,691
% Awarded	32%	27%	47%	33%	11%	26%	13%	17%
Avg. \$ Awarded					\$99,756	\$281,742	\$38,586	\$137,253
S.1					w/o NSF EPSCoR	\$32,066,439	and the property of the property of the second of the seco	\$83,318,291

<sup>\*</sup>Includes NSF EPSCoR. NSF EPSCoR = \$3,056,400 \*\* Cannot calculate. Not applicable. Note: KU data do not include Medical Center.

		NUM	BER			<b>AMOUNT</b>		
tes entracemental register	nemanico	100000		82000000000000000000000000000000000000				
SCIENCE	KSU	KU		TOTAL	KSU	KU	WSU	TOTAL
Awarded	35	26	8	69	\$6,184,489	\$2,798,070	\$560,291	\$9,542,850
Not Funded	39	53	14	106	\$11,479,661	\$11,014,236	\$2,173,641	\$24,667,538
Total	74	79	22	175	\$17,664,150	\$13,812,306	\$2,733,932	\$34,210,388
% Awarded	47%	33%	36%	39%	35 %	20 %	20%	28%
Avg. \$ Awarded					\$176,700	\$107,618	\$70,036	\$138,302
MATH	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	4	3	2	9	\$219,972	\$151,421	\$151,337	\$522,730
Not Funded	8	9	5	22	\$711,621	\$548,971	\$578,154	\$1,838,746
Total	12	12	7	31	\$931,593	\$700,392	\$729,491	\$2,361,476
% Awarded		25%	29%	29%	24%	22%	21%	22%
Avg. \$ Awarded				,	\$54,993	\$50,474	\$75,669	\$58,081
						,	,	
<b>ENGINEERING</b>	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	11	5	1	17	\$597,129	\$685,043	\$10,505	\$1,292,677
Not Funded	26	17	19	62	\$3,983,237	\$6,027,164	\$2,435,770	\$12,446,171
Total	37	22	20	79	\$4,580,366	\$6,712,207	\$2,446,275	\$13,738,848
% Awarded	30%	23%	5%	22%	13%	10%	0.4%	9%
Avg. \$ Awarded					\$54,284	\$137,009	\$10,505	\$76,040
OTHER	TECTI	YZYI	THEFT	TOTAL	YZCYI	****	*****	mom., *
OTHER Awarded	KSU 5	KU 2	WSU 0	TOTAL 7	KSU	KU	WSU	TOTAL
Not Funded	4	5	0	9	\$1,009,102	\$239,357	\$0	\$1,248,459
	9				\$6,503,003	\$1,080,249	\$0	\$7,583,252
Total		7	**	16	\$7,512,105	\$1,319,606	**	\$8,831,711
% Awarded	50%	29%	**	44%	13%	18%	**	14%
Avg. \$ Awarded					\$201,820	\$119,679	**	\$178,351
SME TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	50	34	11	95	\$7,001,590	\$3,634,534	\$722,133	\$11,358,257
Not Funded	73	79	38	190	\$16,174,519	\$17,590,371	\$5,187,565	\$38,952,455
Total	123	113	49	285	\$23,176,109	\$21,224,905	\$5,909,698	\$50,310,712
% Awarded	41%	30%	22%	33%	30%	17%	12%	23%
Avg. \$ Awarded					\$140,032	\$106,898	\$65,648	\$119,561
SMEO TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	<b>NSU</b> 55	36	WSU 11	101AL 102	\$8,010,692	\$3,873,891	\$722,133	TOTAL \$12,606,716
Not Funded	77	84	38	199	\$22,677,522	\$18,670,620	\$5,187,565	\$12,000,710
Total	132	120	49	301	\$30,688,214	\$22,544,511	\$5,909,698	\$59,142,423
% Awarded	42%		22%	34%	26%	17%	12%	359,142,423
Avg. \$ Awarded	42 /0	30 70	44 /0	J-4 /0	\$145,649	\$107,608	\$65,648	\$123,595
Avg. & Awarded					p145,049	\$107,008	\$05,048	\$123,395

\*\* Cannot calculate. Not applicable.

Note: KU data do not include Medical Center. Note: KU grant data revised from previous reports.

		NUM	BER			AMOUNT		
SCIENCE	KSU	KU		TOTAL		KU	WSU	TOTAL
Awarded	18 42	18	7	43		\$2,806,886	\$379,732	\$5,075,751
Not Funded	-	40	8	90		\$8,472,757	\$624,739	\$16,349,787
Total	60	58	15	133	+-,,	\$11,279,643	\$1,004,471	\$21,425,538
% Awarded	30%	31%	47%	32%	,	25%	38%	24%
Avg. \$ Awarded					\$104,952	\$155,938	\$54,247	\$118,041
MATH	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	2	4	3	9	\$40,668	\$525,478	\$173,112	\$739,258
Not Funded	5	5	1	11	\$530,759	\$303,537	\$15,723	\$850,019
Total	7	9	4	20	\$571,427	\$829,015	\$188,835	\$1,589,277
% Awarded	29%	44%	75%	45%	7%	63%	92%	47%
Avg. \$ Awarded				ä	\$20,334	\$131,370	\$57,704	\$82,140
					to the property of the propert		2-13-01	402,110
<b>ENGINEERING</b>	KSU	KU*		TOTAL	KSU	KU *	WSU	TOTAL
Awarded	3	4	2	9	\$167,096	\$4,859,208	\$110,453	\$5,136,757
Not Funded	30	19	13	62	\$4,797,565	\$3,553,626	\$988,568	\$9,339,759
Total	33	23	15	71	\$4,964,661	\$8,412,834	\$1,099,021	\$14,476,516
% Awarded	9%	17%	13%	13%	3%	58%	10%	35%
Avg. \$ Awarded					\$55,699	\$1,214,802	\$55,227	\$570,751
					w/o NSF EPSCoR	\$3,972,834		\$10,036,516
OTHER	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	5	0	2	7	\$263,716	\$0	\$117,643	\$381,359
Not Funded	13	5	0	18	\$1,886,435	\$1,434,139	\$0	\$3,320,574
Total	18	5	2	25	\$2,150,151	\$1,434,139	\$117,643	\$3,701,933
% Awarded	28%	0%	100%	28%	12%	0%	100%	10%
Avg. \$ Awarded					\$52,743	**	\$58,822	\$54,480
SME TOTAL	KSU	KU	WSU	TOTAL	KSU	KU *	WSU	TOTAL
Awarded	23	26	12	61	\$2,096,897	\$8,191,572	\$663,297	\$10,951,766
Not Funded	77	64	22	163	\$12,580,615	\$12,329,920	\$1,629,030	\$26,539,565
Total	100	90	34	224	\$14,677,512	\$20,521,492	\$2,292,327	\$37,491,331
% Awarded	23%	29%	35%	27%	14%	40%	29%	29%
Avg. \$ Awarded					\$91,169	\$315,060	\$55,275	\$179,537
					w/o NSF EPSCoR	\$16,081,492		\$33,051,331
SMEO TOTAL	KSU	KU	Wett	TOTAL	KSU	ZII *	WOLL	TOTAL
Awarded	28	26	WSU 14	68	\$2,360,613	<b>KU</b> * \$8,191,572	<b>WSU</b> \$780,940	TOTAL
Not Funded	90	69	22	181	\$14,467,050	\$13,764,059	\$1,629,030	\$11,333,125
Total	118	95	36	249	1290-17   1180-1400-1003   1200   1409-100		The same of the sa	\$29,860,139
% Awarded		27%	39%	27%	\$16,827,663 14%	\$21,955,631 37%	\$2,409,970	\$41,193,264
Avg. \$ Awarded	2-10	41 70	39 70	4170	\$84,308	LA PERIOD PRESI	32%	28%
Avg. o Awarded					w/o NSF EPSCoR	\$315,060	\$55,781	\$166,664
					WO HOF EFSCOR	\$17,515,631		\$36,753,264

<sup>\*</sup>Includes NSF EPSCoR. NSF EPSCoR=\$4,440,000 \*\* Cannot calculate. Not applicable.

Note: KU data do not include Medical Center. Note: KU grant data revised from previous reports.

		NUM	BER			AMOUNT		
SCIENCE Awarded	KSU 22	<b>KU</b> 19	3	TOTAL 44	<b>KSU</b> \$3,370,874	<b>K</b> U \$2,682,032	WSU \$98,404	<b>TOTAL</b> \$6,151,310
Not Funded	39	67	14	120	\$7,360,841	\$17,631,552	\$3,118,399	\$28,110,792
Total	61	86	17	164	\$10,731,715	\$20,313,584	\$3,216,803	\$34,262,102
% Awarded	36%	22%	18%	27%	31%	13%	3%	18%
Avg. \$ Awarded					\$153,222	\$141,160	\$32,801	\$139,803
MATH	KSU*	KU		TOTAL	KSU	KU	WSU	TOTAL
Awarded	5	5	2	12	\$135,134	\$700,766	\$143,647	\$979,547
Not Funded	14	8	11	33	\$3,358,040	\$744,035	\$874,695	\$4,976,770
Total	19	13	13	45	\$3,493,174	\$1,444,801	\$1,018,342	\$5,956,317
% Awarded	26%	38%	15%	27%	4%	49%	14%	16%
Avg. \$ Awarded				î	\$27,027	\$140,153	\$71,824	\$81,629
ENGINEERING	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	6	2	5	13	\$425,544	\$24,510	\$239,212	\$689,266
Not Funded	26	18	4	48	\$4,538,113	\$4,302,543	\$170,145	\$9,010,801
Total	32	20	9	61	\$4,963,657	\$4,327,053	\$409,357	\$9,700,067
% Awarded	19%	10%	56%	21%	9%	1%	58%	7 %
Avg. \$ Awarded					\$70,924	\$12,255	\$47,842	\$53,020
OTHER	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	6	1	0	7	\$1,329,891	\$11,966	\$0	\$1,341,857
Not Funded	5	3	1	9	\$3,220,447	\$475,413	\$634,098	\$4,329,958
Total	11	4	1	16	\$4,550,338	\$487,379	\$634,098	\$5,671,815
% Awarded	55%	25%	0%	44%	29%	2%	0%	24%
Avg. \$ Awarded					\$221,649	\$11,966	**	\$191,694
SME TOTAL	KSU	KU	12.00.000.000	TOTAL	KSU	KU	WSU	TOTAL
Awarded	33	26	10	69	\$3,931,552	\$3,407,308	\$481,263	\$7,820,123
Not Funded	79	93	29	201	\$15,256,994	\$22,678,130	\$4,163,239	\$42,098,363
Total	112	119	39	270	\$19,188,546	\$26,085,438	\$4,644,502	\$49,918,486
% Awarded	29%	22%	26%	26%	20%	13%	10%	16%
Avg. \$ Awarded					\$119,138	\$131,050	\$48,126	\$113,335
SMEO TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	39	27	10	76	\$5,261,443	\$3,419,274	\$481,263	\$9,161,980
Not Funded	84	96	30	210	\$18,477,441	\$23,153,543	\$4,797,337	\$46,428,321
Total	123	123	40	286	\$23,738,884	\$26,572,817	\$5,278,600	\$55,590,301
% Awarded	32%	22%	25%	27%	22%	13%	9%	16%
Avg. \$ Awarded					\$134,909	\$126,640	\$48,126	\$120,552

Note: KU data do not include Medical Center. Note: KU grant data revised from previous reports.

<sup>\*</sup>KSU data includes statistics.
\*\* Cannot calculate. Not applicable.

		NUM	BER			AMOUNT		
SCIENCE	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	23	26	1	50	\$2,907,520	\$3,345,750	\$59,656	\$6,312,926
Not Funded	32	49	10	91	\$5,323,489	\$10,426,175	\$4,433,367	\$20,183,031
Total	55	75	11	141	\$8,231,009	\$13,771,925	\$4,493,023	\$26,495,957
% Awarded	42%	35%	9%	35%	35%	24%	1%	24%
Avg. \$ Awarded					\$126,414	\$128,683	\$59,656	\$126,259
MATH	KSU*	KU	100000000000000000000000000000000000000	TOTAL	KSU	KU	WSU	TOTAL
Awarded	3	2	2	7	\$73,445	\$111,775	\$66,754	\$251,974
Not Funded	13	10	3	26	\$1,708,067	\$1,106,845	\$89,127	\$2,904,039
Total	16	12	5	33	\$1,781,512	\$1,218,620	\$155,881	\$3,156,013
% Awarded	19%	17%	40%	21%	4%	9%	43%	8%
Avg. \$ Awarded				i i	\$24,482	\$55,888	\$33,377	\$35,996
ENGINEERING	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	4		0	8	\$103,901	\$376,484	\$0	\$480,385
Not Funded	20	18	7	45	\$1,733,744	\$1,643,584	\$1,123,446	\$4,500,774
Total	24	22	7	53	\$1,837,645	\$2,020,068	\$1,123,446	\$4,981,159
% Awarded	17%	18%	0%	15%	6%	19%	0%	10%
Avg. \$ Awarded					\$25,975	\$94,121	\$0	\$60,048
OTHER	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	4	1	1	6	\$333,238	\$17,009	\$92,009	\$442,256
Not Funded	8	4	0	12	\$1,896,949	\$320,077	\$0	\$2,217,026
Total	12	5	1	18	\$2,230,187	\$337,086	\$92,009	\$2,659,282
% Awarded	33%	20%	100%	33%	15%	5%	100%	17%
Avg. \$ Awarded					\$83,310	\$17,009	\$92,009	\$73,709
SME TOTAL	KSU	KU		TOTAL	KSU	KU	WSU	TOTAL
Awarded	30	32	3	65	\$3,084,866	\$3,834,009	\$126,410	\$7,045,285
Not Funded	65	77	20	162	\$8,765,300	\$13,176,604	\$5,645,940	\$27,587,844
Total	95	109	23	227	\$11,850,166	\$17,010,613	\$5,772,350	\$34,633,129
% Awarded	32%	29%	13%	29%	26%	23%	2%	20%
Avg. \$ Awarded					\$102,829	\$119,813	\$42,137	\$108,389
SMEO TOTAL	KSU	KU		NUMBER	200 P 10 P	KU	WSU	AMOUNT
Awarded	34	33	4	71	\$3,418,104	\$3,851,018	\$218,419	\$7,487,541
Not Funded	73	81	20	174	\$10,662,249	\$13,496,681	\$5,645,940	\$29,804,870
Total	107	114	24	245	\$14,080,353	\$17,347,699	\$5,864,359	\$37,292,411
% Awarded	32%	29%	17%	29%	24%	22 %	4%	20%
Avg. \$ Awarded					\$100,532	\$116,698	\$54,605	\$105,458

<sup>\*</sup>KSU data includes statistics.

Note: KU data do not include Medical Center.
Note: KU grant data revised from previous reports.

<sup>\*\*</sup> Cannot calculate. Not applicable.

# APPENDIX F Total Grant Activity

### GRANT ACTIVITY ACROSS ALL AGENCIES: PERCENT CHANGE

# Funded plus Not Funded:

Change 34% 0% 255% 60% 58%
34% 0% 255% 60%
255% 60%
60%
58%
to 95
Change
32%
0%
58%
36%
to 95
hange
-4%
19%
188%
22%
15%
to 95
hange
39%
11%
42%
39%
1

<sup>\*</sup>Includes NSF EPSCoR. 1995 NSF EPSCoR = \$3,056,400. 1993 NSF EPSCoR=\$4,440,000.

TOTAL GRANTS AWARDED: PERCENT CHANGE

						1991-1995
KSU	1991	1992	1993	1994	1995	% Change
Science	\$17,163,755	\$23,830,079	\$19,780,635	\$22,608,826	\$16,206,180	-6%
Engineering	\$1,496,124	\$4,398,110	\$3,387,740	\$8,305,309	\$3,638,842	143%
Math	\$73,445	\$248,415	\$18,168	\$219,972	\$183,900	150%
TOTAL	\$18,733,324	\$28,476,604	\$23,186,543	\$31,134,107	\$20,028,922	7%
KU	1991	1992	1993*	1994	1995*	% Change
Science	\$21,394,197	\$19,253,576	\$30,346,004	\$14,961,545	\$20,052,621	-6%
Engineering	\$3,534,318	\$6,812,277	\$13,253,504	\$4,117,452	\$12,818,309	263%
Math	\$111,775	\$804,589	\$571,280	\$211,666	\$160,763	44%
TOTAL	\$25,040,290	\$26,870,442	\$44,170,788	\$19,290,663	\$33,031,693	32%
w/o NSF EPSCoR			\$39,730,788		\$29,975,293	20%
wsu	1991	1992	1993	1994	1995	% Change
Science	\$977,668	\$1,071,891	\$1,168,322	\$2,394,653	\$1,594,803	63%
Engineering	\$1,197,250	\$2,131,194	\$1,690,935	\$567,739	\$1,454,064	21%
Math	\$216,298	\$274,858	\$173,112	\$151,337	\$134,489	-38%
TOTAL	\$2,391,216	\$3,477,943	\$3,032,369	\$3,113,729	\$3,183,356	33%
STATE TOTAL	1991	1992	1993*	1994	1995*	% Change
Science	\$39,535,620	\$44,155,546	\$51,294,961	\$39,965,024	\$37,853,604	-4%
Engineering	\$6,227,692	\$13,341,581	\$18,332,179	\$12,990,500	\$17,911,215	188%
Math	\$401,518	\$1,327,862	\$762,560	\$582,975	\$479,152	19%
TOTAL	\$46,164,830	\$58,824,989	\$70,389,700	\$53,538,499	\$56,243,971	22%
w/o NSF EPSCoR			\$65,949,700		\$53,187,571	15%

<sup>\*</sup>Includes NSF EPSCoR. 1995 NSF EPSCoR = \$3,056,400. 1993 NSF EPSCoR=\$4,440,000. Note: All KU grant data revised from previous reports.

#### **TOTAL GRANTS: FY 1995**

SCIENCE* Awarded Rejected Total % Awarded	KSU 288 254 542 53.1%	NUMBE KU 219 275 494 44.3%	WSU 40 48 88 45.5%	TOTAL 547 577 1,124 48.7%	KSU \$16,206,180 \$63,913,968 \$80,120,148 20.2%	AMOUNT KU \$20,052,621 \$40,985,509 \$61,038,130 32.9%	WSU \$1,594,803 \$7,255,895 \$8,850,698 18.0%	TOTAL \$37,853,604 \$112,155,372 \$150,008,976 25,2%
MATH Awarded Rejected Total % Awarded	KSU 3 10 13 23.1%	NUMBEI KU 4 8 12 33.3%	WSU 3 8 11 27.3%	TOTAL 10 26 36 27.8%	KSU \$183,900 \$1,197,281 <b>\$1,381,181</b> 13.3%	AMOUNT KU \$160,763 \$1,048,387 \$1,209,150 13.3%	WSU \$134,489 \$828,501 \$962,990 14.0%	TOTAL \$479,152 \$3,074,169 \$3,553,321 13.5%
ENGINEERING Awarded Rejected Total % Awarded	KSU 72 72 144 50.0%	NUMBER KU 65 84 149 43.6%	WSU 35 28 63 55.6% w/o NSF I	TOTAL 172 184 356 48.3% EPSCoR	KSU \$3,638,842 \$16,105,175 \$19,744,017 18.4% Awarded Total % Awarded	AMOUNT KU** \$12,818,309 \$14,680,162 \$27,498,471 46.6% \$9,761,909 \$24,442,071 39.9%	WSU \$1,454,064 \$8,285,803 \$9,739,867 14.9%	TOTAL** \$17,911,215 \$39,071,140 \$56,982,355 31.4% \$14,854,815 \$53,925,955 27.5%
SME TOTAL* Awarded Rejected Total % Awarded	KSU 363 336 699 51.9%	NUMBER KU 288 367 655 44.0%	78 84 162 48.1% v/o NSF F	729 787 1,516 48.1% CPSCoR	KSU \$20,028,922 \$81,216,424 \$101,245,346 19.8% Awarded Total % Awarded	AMOUNT KU** \$33,031,693 \$56,714,058 \$89,745,751 36.8% \$29,975,293 \$86,689,351 34.6%	WSU \$3,183,356 \$16,370,199 \$19,553,555 16.3%	TOTAL** \$56,243,971 \$154,300,681 \$210,544,652 26.7% \$53,187,571 \$207,488,252 25.6%

<sup>\*</sup> KU data do not include Medical Center. For FY '95, KUMC Faculty received \$41,151,728 extramural awards.

\*\* KU Engineering data include NSF EPSCoR. NSF EPSCoR = \$3,056,400

Note: KU grant data revised from previous reports.

**TOTAL GRANTS: FY 1994** 

		NUMBE	R			AMOUNT		
SCIENCE* Awarded	KSU 358	KU 189	WSU	TOTAL	KSU	KU	WSU	TOTAL
Rejected	264	261	41 42	588	\$22,608,826	\$14,961,545	\$2,394,653	\$39,965,024
Total	622	450		567	\$69,017,337	\$31,151,322	\$5,861,606	\$106,030,265
% Awarded	57.6%		83	1,155	\$91,626,163	\$46,112,867	\$8,256,259	\$145,995,289
70 Awarueu	37.076	42.0%	49.4%	50.9%	24.7%	32.4%	29.0%	27.4%
		NUMBEI	R			AMOUNT		
MATH	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	4	6	2	12	\$219,972	\$211,666	\$151,337	TOTAL \$582,975
Rejected	15	16	7	38	\$1,613,757	\$982,339	\$794,602	\$3,390,698
Total	19	22	9	50	\$1,833,729	\$1,194,005	\$945,939	
% Awarded	21.1%	27.3%	22.2%	24.0%	12.0%	17.7%	16.0%	\$3,973,673 14.7%
		NUMBER	3	a .		AMOUNT		
<b>ENGINEERING</b>	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	88	53	16	157	\$8,305,309	\$4,117,452	\$567,739	\$12,990,500
Rejected	99	92	63	254	\$24,022,749	\$21,026,198	\$11,710,616	\$56,759,563
Total	187	145	79	411	\$32,328,058	\$25,143,650	\$12,278,355	\$69,750,063
% Awarded	47.1%	36.6%	20.3%	38.2%	25.7%	16.4%	4.6%	18.6%
	1	NUMBER	C a			AMOUNT		
SME TOTAL*	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	450	248	59	757	\$31,134,107	\$19,290,663	\$3,113,729	\$53,538,499
Rejected	378	369	112	859	\$94,653,843	\$53,159,859	\$18,366,824	\$166,180,526
Total	828	617	171	1,616	\$125,787,950	\$72,450,522	\$21,480,553	and the second s
% Awarded	54.3%	40.2%	34.5%	46.8%	24.8%	26.6%	14.5%	\$219,719,025 24.4%

<sup>\*</sup> KU data do not include Medical Center. For FY '94, KUMC Faculty received \$40,548,613 extramural awards. Note: KU grant data revised from previous reports.

## **TOTAL GRANTS: FY 1993**

SCIENCE* Awarded Rejected Total % Awarded	346 288 634 54.6%	NUMBE KU 214 229 443 48.3%	WSU 35 42 77 45.5%	TOTAL 595 559 1,154 51.6%	KSU \$19,780,635 \$40,412,252 \$60,192,887 32.9%	AMOUNT KU \$30,346,004 \$28,125,001 \$58,471,005 51.9%	WSU \$1,168,322 \$3,955,782 \$5,124,104 22.8%	TOTAL \$51,294,961 \$72,493,035 \$123,787,996 41.4%
MATH Awarded Rejected Total % Awarded	KSU 1 12 13 7.7%	NUMBE KU 6 6 12 50.0%	WSU 3 2 5 60.0%	10 20 30 33.3%	\$18,168 \$1,534,427 \$1,552,595 1.2%	AMOUNT KU \$571,280 \$361,418 \$932,698 61.3%	WSU \$173,112 \$149,241 \$322,353 53.7%	TOTAL \$762,560 \$2,045,086 \$2,807,646 27.2%
ENGINEERING Awarded Rejected Total % Awarded	KSU 71 66 137 51.8%	NUMBEI KU 63 62 125 50.4%	WSU 30 33 63 47.6% w/o NSF I	TOTAL 164 161 325 50.5% EPSCoR	KSU \$3,387,740 \$13,897,304 \$17,285,044 19.6% Awarded Total % Awarded	AMOUNT KU** \$13,253,504 \$9,130,303 \$22,383,807 59.2% \$8,813,504 \$17,943,807 49.1%	WSU \$1,690,935 \$5,859,685 \$7,550,620 22.4%	TOTAL** \$18,332,179 \$28,887,292 \$47,219,471 38.8% \$13,892,179 \$42,779,471 32.5%
SME TOTAL* Awarded Rejected Total % Awarded	KSU 418 366 784 53.3%	NUMBER KU 283 297 580 48.8%	WSU 68 77 145 46.9% w/o NSF F	TOTAL 769 740 1,509 51.0% EPSCoR	KSU \$23,186,543 \$55,843,983 \$79,030,526 29.3% Awarded Total % Awarded	AMOUNT KU** \$44,170,788 \$37,616,722 \$81,787,510 54.0% \$39,730,788 \$77,347,510 51.4%	WSU \$3,032,369 \$9,964,708 \$12,997,077 23.3%	TOTAL** \$70,389,700 \$103,425,413 \$173,815,113 40.5% \$65,949,700 \$169,375,113 38.9%

<sup>\*</sup> KU data do not include Medical Center. For FY '93, KUMC Faculty received \$36,309,580 extramural awards.

\*\* KU Engineering data include NSF EPSCoR. NSF EPSCoR = \$4,440,000

Note: KU grant data revised from previous reports.

**TOTAL GRANTS: FY 1992** 

NUMBER					AMOUNT			
SCIENCE*	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	313	191	29	533	\$23,830,079	\$19,253,576	\$1,071,891	\$44,155,546
Rejected	261	271	39	571	\$40,383,856	\$40,727,205	\$6,305,744	\$87,416,805
Total	574	462	68	1,104	\$64,213,935	\$59,980,781	\$7,377,635	\$131,572,351
% Awarded	54.5%	41.3%	42.6%	48.3%	37.1%	32.1%	14.5%	33.6%
		NUMBEI	₹			AMOUNT		
MATH	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	10	8	6	24	\$248,415	\$804,589	\$274,858	\$1,327,862
Rejected	17	9	6	32	\$1,415,917	\$762,209	\$294,317	\$2,472,443
Total	27	17	12	56	\$1,664,332	\$1,566,798	\$569,175	\$3,800,305
% Awarded	37.0%	47.1%	50.0%	42.9%	14.9%	51.4%	48.3%	34.9%
	1	NUMBER	₹	,		AMOUNT		
<b>ENGINEERING</b>	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	75	61	29	165	\$4,398,110	\$6,812,277	\$2,131,194	\$13,341,581
Rejected	89	55	31	175	\$14,033,840	\$7,097,720	\$4,066,531	\$25,198,091
Total	164	116	60	340	\$18,431,950	\$13,909,997	\$6,197,725	\$38,539,672
% Awarded	45.7%	52.6%	48.3%	48.5%	23.9%	49.0%	34.4%	34.6%
NUMBER						AMOUNT		
SME TOTAL*	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	398	260	64	722	\$28,476,604	\$26,870,442	\$3,477,943	\$58,824,989
Rejected	367	335	76	778	\$55,833,613	\$48,587,134	\$10,666,592	\$115,087,339
Total	765	595	140	1,500	\$84,310,217	\$75,457,576	\$14,144,535	\$173,912,328
% Awarded	52.0%	43.7%	45.7%	48.1%	33.8%	35.6%	24.6%	33.8%

<sup>\*</sup> KU data do not include Medical Center. For FY '92, KUMC Faculty received \$34,026,295 extramural awards. Note: KU grant data revised from previous reports.

**TOTAL GRANTS: FY 1991** 

SCIENCE* Awarded Rejected Total % Awarded	KSU 208 204 412 50.5%	NUMBE KU 158 221 379 41.7%	WSU 28 34 62 45.2%	TOTAL 394 459 <b>853</b> 46.2%	KSU \$17,163,755 \$30,787,172 \$47,950,927 35.8%	AMOUNT KU \$21,394,197 \$31,157,307 \$52,551,504 40.7%	WSU \$977,668 \$10,226,725 <b>\$11,204,393</b> 8.7%	TOTAL \$39,535,620 \$72,171,204 \$111,706,824 35.4%
MATH Awarded Rejected Total % Awarded	KSU 3 9 12 25.0%	NUMBE KU 2 12 14 14.3%	WSU 4 6 10 40.0%	TOTAL 9 27 36 25.0%	<b>KSU</b> \$73,445 \$1,446,482 <b>\$1,519,927</b> 4.8%	AMOUNT KU \$111,775 \$1,287,543 \$1,399,318 8.0%	WSU \$216,298 \$407,954 <b>\$624,252</b> <b>34.6</b> %	TOTAL \$401,518 \$3,141,979 \$3,543,497 11.3%
ENGINEERING Awarded Rejected Total % Awarded	KSU 35 34 69 50.7%	NUMBER KU 55 55 110 50.0%	WSU 31 16 47 66.0%	121 105 226 53.5%	KSU \$1,496,124 \$3,807,567 \$5,303,691 28.2%	AMOUNT KU \$3,534,318 \$3,816,862 \$7,351,180 48.1%	WSU \$1,197,250 \$2,213,434 \$3,410,684 35.1%	TOTAL \$6,227,692 \$9,837,863 \$16,065,555 38.8%
SME TOTAL* Awarded Rejected Total % Awarded	KSU 246 247 493 49.9%	NUMBER KU 215 288 <b>503</b> 42.7%	WSU 63 56 119 52.9%	TOTAL 524 591 1,115 47.0%	KSU \$18,733,324 \$36,041,221 \$54,774,545 34.2%	AMOUNT KU \$25,040,290 \$36,261,712 \$61,302,002 40.8%	WSU \$2,391,216 \$12,848,113 \$15,239,329 15.7%	TOTAL \$46,164,830 \$85,151,046 \$131,315,876 35.2%

<sup>\*</sup> KU data do not include Medical Center. For FY '91, KUMC Faculty received \$28,203,334 extramural awards. Note: KU grant data revised from previous reports.

# APPENDIX G EPSCoR Faculty

## Group I

#### KSU

Banks, M. Borovik, A. Chakrabarti, A. Collinson, M. Consigli, R. Dawes, W. Dodds, W. Edgar. J. Erickson, L. Glasgow, L. Govindaraju, R. Jiang, H. Klabunde, K. Koelliker, J. Law, B. Lin, C. Lin, J. Lucas, M. Maata, E. Meloan, C. O'Shea, M. Rahman, T. Rice, C. Rintoul, D. Riordan, C. Roche, T. Rys, A. Schlup, J. Schwab, A. Seib, P. Sherwood, P. Sorensen, C. Wetzel, D. Wysin, G.

#### KU

Adams, R. Arritt, R. Aube, J. Benson, D. Bigelow, D. Bowman, R. Bowman-James, K. Braaten, D. Busch, D. Byers, R. Chu, S. Cravens, T. Dorfmeister, J. Engler, T. Gegenheimer, P. Givens, R. Heppert, J. Johnson, C. Kuczera, K. Larive, C. Leimkuhler, B. Lerner, D. Lunte, C. Lunte, S. Macpherson, G. Melott, A. Michaelis, E. Michaelis, M. Ralston, J. Richter, M. Shandarin, S. Siahaan, T. Sophocleous, M. Southard, M. Squier, T. Subramanium, B. Terwilliger, V. Wilson, G.

#### WSU

Alexander, D.
Behrman, E.
Chaudhuri, J.
DeLillo, T.
Elcrat, A.
Hamdeh, H.
Kahol, P.
Kuchment, P.
Motavalli, S.
Papanicolaou, V.
Singhal, R.
Skinner, S.
Stevenson, W.
Taylor, M.

Wong, K.

Group II	KU-Lawrence	WSU
	ivame (Kank)	Name (Rank)
KSU Name (Rank)  Beeman, R. (Prof.) Bolton, T. (Assoc.) Borovik, A. (Asst.) Buszek, K (Asst.) Collinson, M. (Asst.) Conrad, G. (Prof.) Denell, R. (Prof.) Edgar. J. (Asst.) Fox, R. (Asst.) Greiger, D. (Asst.) Guikema, J. (Prof.) Hua, D. (Prof.) Jiang, H. (Asst.) Johnson, L. (Asst.) Kambhampati, S. (Asst.) Klabunde, K. (Prof.) Lin, C. (Prof.) Lin, J. (Asst.) Li, Y. (Asst.)	Anthony-Twarog, B. (Prof.) Aube, J. (Assoc.) Bean, A. (Asst.) Benson, D. (Asst.) Besson, D. (Asst.) Bowman-James, K. (Prof.) Bowman, R. (Asst.) Burress, D. (Crtsy.) Busch, D. (Prof.) Christianson, M. (Asst.) Chu, S. (Prof.) Cohen, R. (Assoc.) Corbin, V. (Asst.) Cravens, T. (Prof.) Dorfmeister, J. (Prof.) Dunn, R. (Assoc.) Georg, G. (Assoc.) Givens, R. (Prof.) Heppert, J. (Assoc.) Huang, W. (Asst.) Johnson, C. (Assoc.)	Name (Rank)  Agarwal, R. (Asst.) Alexander, D. (Asst.) Arakere, N. (Asst.) Brinkman, G. (Instr.) Burns, D. (Asst.) Chaudhuri, J. (Asst.) Hamdeh, H. (Asst.) Hendry, W. (Prof.) Hoffman, K. (Prof.) Koert, D. (Asst.) Kuchment, P. (Prof.) McCormick, B. (Prof.) McDonald, J.D. (Asst.) Motavalli, S. (Asst.) Rajan, V. (Asst.) Schmidt, J. (Asst.) Schmidt, J. (Asst.) Stevenson, W. (Prof.) Twomey, J. (Asst.) Wollner, D. (Asst.)  Asst. = 14 Assoc. = 0 Prof. = 6 Other = 1  Total = 21  (KU) Asst. = 21 Arsoc. = 7 Arof. = 11 Other = 1  Total = 40
Maata, E. (Prof.) Meng, H. (Asst.) Rahman, T. (Prof.) Reay, N. (Prof.) Rice, C. (Assoc.) Riordan, C. (Asst.) Sherwood, P. (Prof.) Sidwell, R. (Assoc.) Sorensen, C. (Prof.) Stanton, N. (Prof.) Tordesillas, A. (Asst.) Zou, Q. (Assoc.)  Asst. = 15 Assoc. = 4 Prof. = 13  Total = 32	Kuczera, K. (Asst.) Lai, Y-C. (Asst.) Laird, B. (Asst.) Lan, C. (Prof.) Larive, C. (Asst.) Leimkuhler, B. (Assoc.) Lu, X. (Asst.) Mason, K. (Asst.) Melott, A. (Prof.) Nguyen, T. (Asst.) Ruden, D. (Asst.) Shandarin, S. (Prof.) Squier, T. (Asst.) Subramanium, B. (Prof.) Suppes, G. (Asst.) Terwilliger, V. (Asst.) Tucker, D. (Asst.) Wu, J. (Asst.)	