

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

**Fourth Assessment of the Science,
Engineering, and Math Infrastructure
at Three Universities in Kansas**

prepared for
K*STAR
Ted Kuwana, Principal Investigator and
Regents Distinguished Professor

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EXECUTIVE SUMMARY

As part of its NSF EPSCoR project, Kansas made a serious commitment to provide an annual 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, and Wichita State University). This report presents the annual update of the database, which contains information about personnel, graduate enrollment, degrees awarded, facilities, and grant activity. With data spanning four years (1991 through 1994), growth in the infrastructure and improvement in competition for federal grants could be examined.

NSF EPSCoR funding to Kansas began in FY 1992. The time span (three years from 1991 to 1994) and funding available (four percent of the total R&D expenditures) to improve the state's competitive position are relatively small given the magnitude of the challenge, but progress has been made. The state must continue to work hard to overcome the sizable gap that continues to exist in the area of grant funding, but key areas identified in the statewide NSF EPSCoR initiative are beginning to show positive growth:

- Science, engineering, and math (SEM) graduate enrollment has shown slow but steady growth, with the largest growth occurring in engineering.
- The number of women and minority SEM graduate students has grown but the proportion of women and minority students enrolled remains below the percentage represented in the total population.
- The number of degrees awarded has increased with the greatest increase occurring in the number of master degrees awarded. Women and minorities are not receiving degrees in numbers that reflect their proportion of the state's total population.
- The number of grants submitted to NSF by SEM faculty has increased substantially from FY 1991 to FY 1994. The number funded and dollars awarded showed a sizeable increase in FY 1994.
- While NSF funding to Kansas has increased, the state still does not receive its share of research dollars. NSF R&D dollars awarded to Kansas are well below the U.S. average in dollars awarded per 1000 population.
- The number of grants submitted to **all** agencies have risen steadily but the number funded has leveled off. Dollars awarded increased in FY 1992, but has risen only slightly since then.
- Kansas continues to lag behind the U.S. average in total federal dollars awarded to its academic institutions.

- EPSCoR funded faculty are writing more proposals and improving the rate at which they are being awarded grants. The number receiving awards increased from 47 percent in FY 1992 to 71 percent in FY 1994. The number of faculty receiving larger awards is also increasing.

These results suggest that, especially for faculty directly impacted by NSF EPSCoR funding, the competitive position may be improving. For the state's Ph.D. granting institutions, the trends are on the whole more positive than negative, and show progress in key areas. Some institutions are increasing graduate enrollment and grant activity more rapidly than others. Future assessment should examine how these institutions have utilized resources to encourage and support that growth. With continued effort and support, the state should be able to continue to improve the competitive position of its academic research institutions.

INTRODUCTION

In 1992, Kansas became an NSF EPSCoR state because it had not been successful in competing for its fair share of federal research and development (R&D) dollars. To assess progress in the difficult task of making Kansas more competitive for federal R&D dollars, a plan was developed to provide annual assessment of the status of science, engineering and math (SEM) research and infrastructure at the state's three Ph.D. granting institutions. A database was established to describe and monitor the SEM infrastructure (human resources, facilities) and grant activity. The database was created using data provided by Kansas State University (KSU), University of Kansas (KU) and Wichita State University (WSU). It contains information about personnel, graduate enrollment degrees, facilities, and grant activity. This report provides the annual update of the database. With data spanning four years (1991 through 1994), progress over time can be examined.

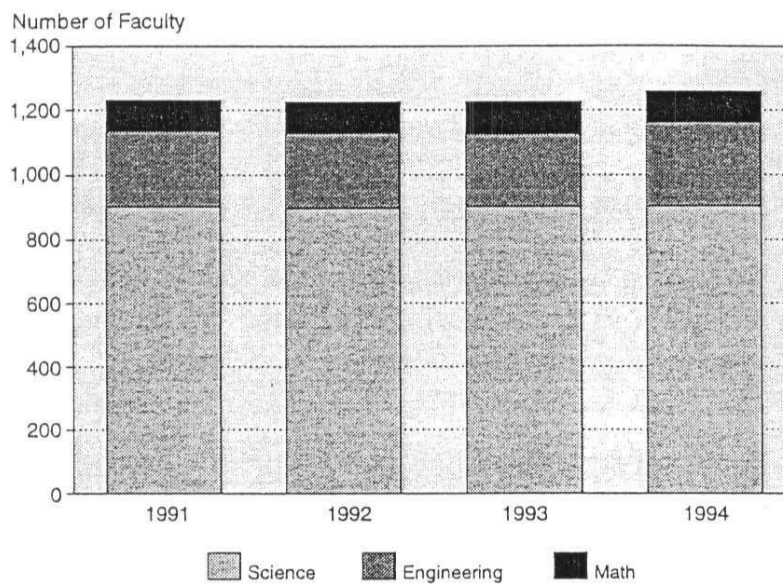
SCIENCE, ENGINEERING AND MATH INFRASTRUCTURE

Personnel

The number of SEM faculty at KSU, KU-Lawrence¹ and WSU has not changed dramatically in the past four years (Figure 1). While the total number of science faculty statewide has not changed, engineering faculty increased ten percent, and math faculty increased two percent. The number of faculty increased three percent at KSU, by five percent at KU (Lawrence campus only), and decreased by six percent at WSU (Table 1). Also, the number of female and minority faculty has increased. Figure 2 shows that the number of female faculty increased from 163 to 187 and the number of minority faculty increased from 129 to 157. The number of female faculty at all three institutions combined (state total) increased 15 percent from 1991 to 1994 (Table 2), with women comprising 15 percent of the faculty in 1994. Minority representation among the faculty increased 22 percent from 1991 to 1994, with minorities making up 12 percent of the SEM faculty (Table 3). While the number of SEM women and minority faculty is low, that number continues to inch upward. The state seems to be making progress in increasing the number of women and minorities in SEM faculty positions.

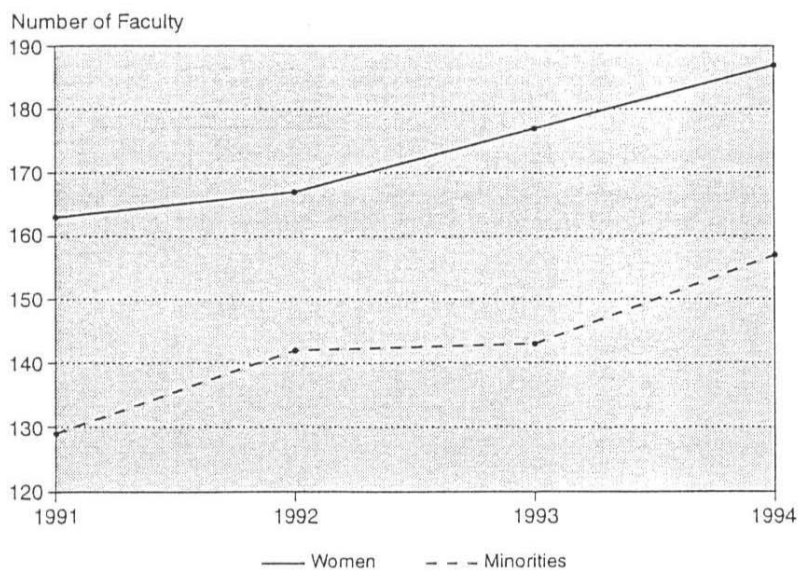
¹All data reported for the University of Kansas include the Lawrence campus only. Medical Center data are not included.

Figure 1
Science, Engineering, and Math Tenure Track Faculty
KSU, KU, and WSU



Source: Institutional databases.

Figure 2
Science, Engineering, and Math - Female and Minority Faculty
KSU, KU, and WSU



Source: Institutional databases.

Table 1
NUMBER OF SCIENCE, ENGINEERING AND MATH FACULTY:
KSU, KU AND WSU

	1991	1992	1993	1994	Percent Change 1991-1994
KSU					
Science	479	471	472	482	1%
Engineering	115	111	106	128	11%
Math	29	31	33	32	10%
Subtotal	623	613	611	642	3%
KU-Lawrence					
Science	286	295	300	296	3%
Engineering	76	76	75	86	13%
Math	37	38	40	38	3%
Subtotal	399	409	415	420	5%
WSU					
Science	138	132	130	126	-9%
Engineering	44	46	45	45	2%
Math	27	26	25	25	-7%
Subtotal	209	204	200	196	-6%
STATE					
Science	903	898	902	904	0%
Engineering	235	233	226	259	10%
Math	93	95	98	95	2%
TOTAL	1,231	1,226	1,226	1,258	2%

Source: Institutional databases.

Table 2
NUMBER OF FEMALE FACULTY

	1991	1992	1993	1994	Percent Change 1991 - 1994
KSU					
Science	54	54	60	64	19%
Engineering	4	4	5	6	50%
Math	0	0	0	0	0%
Total Female	58	58	65	70	21%
Total Faculty	623	613	611	642	3%
% Female	9%	9%	11%	11%	
 KU-Lawrence					
Science	45	53	57	60	33%
Engineering	2	2	4	5	150%
Math	3	3	3	3	0%
Total Female	50	58	64	68	36%
Total Faculty	399	409	415	420	5%
% Female	13%	14%	15%	16%	
 WSU					
Science	52	49	46	47	-10%
Engineering	2	2	2	2	0%
Math	1	0	0	0	0%
Total Female	55	51	48	49	-11%
Total Faculty	209	204	200	196	-6%
% Female	26%	25%	24%	25%	
 STATE					
Science	151	156	163	171	13%
Engineering	8	8	11	13	63%
Math	4	3	3	3	0%
Total Female	163	167	177	187	15%
Total Faculty	1,231	1,226	1,226	1,258	2%
% Female	15%	14%	14%	15%	

Source: Institutional databases.

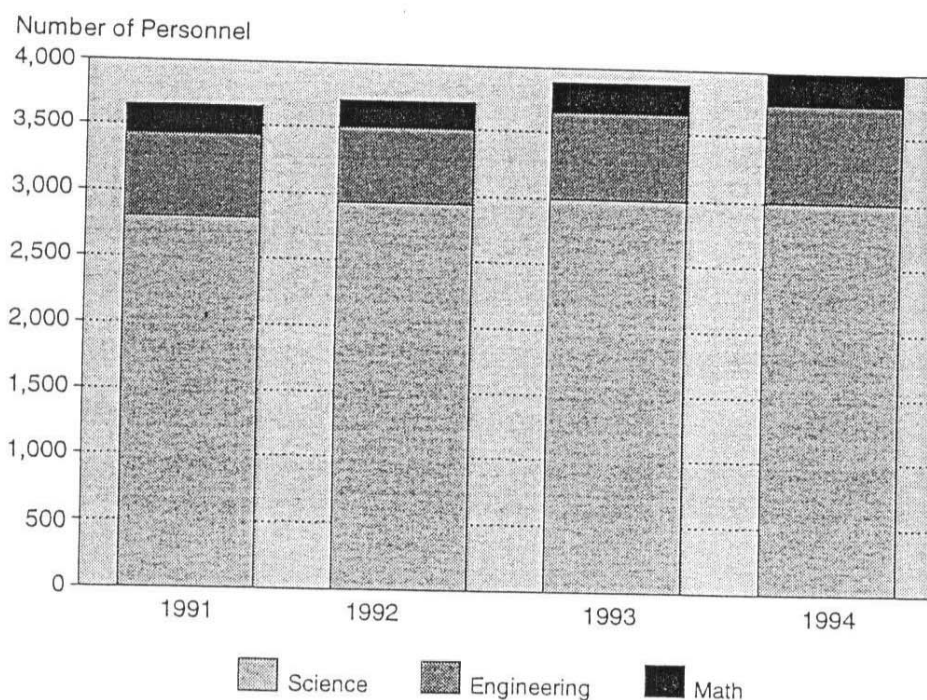
Table 3
NUMBER OF MINORITY FACULTY

	1991	1992	1993	1994	Percent Change 1991 - 1994
KSU					
Science	36	40	40	39	8%
Engineering	16	16	14	22	38%
Math	6	8	9	9	0%
Total Minority	58	64	63	70	21%
Total Faculty	623	613	611	642	3%
% Minority	9%	10%	10%	11%	
KU-Lawrence					
Science	24	25	24	27	0%
Engineering	10	12	12	14	20%
Math	5	6	9	9	80%
Total Minority	39	43	45	50	15%
Total Faculty	399	409	415	420	5%
% Minority	10%	11%	11%	12%	
WSU					
Science	15	16	17	15	0%
Engineering	10	12	12	14	40%
Math	7	7	6	8	0%
Total Minority	32	35	35	37	16%
Total Faculty	209	204	200	196	-6%
% Minority	15%	17%	18%	19%	
STATE					
Science	75	81	81	81	8%
Engineering	36	40	38	50	39%
Math	18	21	24	26	0%
Total Minority	129	142	143	157	22%
Total Faculty	1,231	1,226	1,226	1,258	2%
% Minority	10%	12%	12%	12%	

Source: Institutional databases.

While the number of SEM faculty remained fairly stable from 1991 to 1994, the total number of personnel increased from 3,656 to 3,986 for a nine percent change (Figure 3). Science personnel² increased from 2,813 to 3,004 (seven percent increase), math personnel increased from 224 to 239 (seven percent increase), and engineering increased from 619 to 743 (20 percent increase). Table 4 reports changes by type of personnel. The number of assistant professors rose from 340 in 1991 to 365 in 1994. Other categories showing increases were post docs, graduate teaching assistants, and student research assistants. These are categories directly supported by and benefiting from NSF EPSCoR and other grant funds. Since graduate education is an important component of the research mission of universities, the increase in number of post doctoral personnel and graduate student research assistants is encouraging. See Appendix B for detailed SEM faculty and personnel data.

Figure 3
Science, Engineering, and Math Personnel
KSU, KU, and WSU



Source: Institutional databases.

²Personnel includes faculty plus academic staff, directors, research associates and assistants, post docs, graduate teaching assistants and research assistants, and technical staff.

Table 4
NUMBER OF SEM PERSONNEL:
KSU, KU, AND WSU COMBINED

	1991	1992	1993	1994	Percent Change 1991-1994
Professor	557	558	555	562	1%
Associate Professor	334	322	326	331	-1%
Assistant Professor	340	346	345	365	7%
Academic Staff, Directors & Technical Staff	376	406	400	377	<1%
<i>Subtotal:</i>	<i>1,607</i>	<i>1,632</i>	<i>1,626</i>	<i>1,635</i>	<i>2%</i>
Research Associates & Assistants	341	352	344	310	-9%
Post Doctoral	45	58	65	52	16%
Graduate Teaching Assistants	846	789	868	924	9%
Student Research Assistants	817	885	985	1,065	30%
<i>Subtotal:</i>	<i>2,049</i>	<i>2,084</i>	<i>2,262</i>	<i>2,351</i>	<i>41%</i>
TOTAL	3,656	3,716	3,888	3,986	9%

Source: Institutional databases.

Faculty Salaries

Low salaries place Kansas' doctoral granting institutions in a less competitive position for attracting and retaining quality faculty. Faculty salaries in Kansas continue below the average salaries of faculty at peer institutions.³ Table 5 shows that KU salaries remained at 88 percent of salaries at peer institutions while WSU salaries decreased from 90 percent in 1993 to 89% in 1994. KSU faculty salaries, which were 90 percent of peer institution salaries in FY 1993, fell to 84 percent in FY 1994.

Table 5
COMPARISON OF PEER INSTITUTIONS' AVERAGE FACULTY SALARY: FY 1994

	KSU	KU	WSU
Weighted average *	\$43,989	\$48,546	\$41,533
Weighted average of peer institutions	\$51,306	\$55,443	\$46,800
Kansas institutions as % of peer institutions	84%	88%	89%

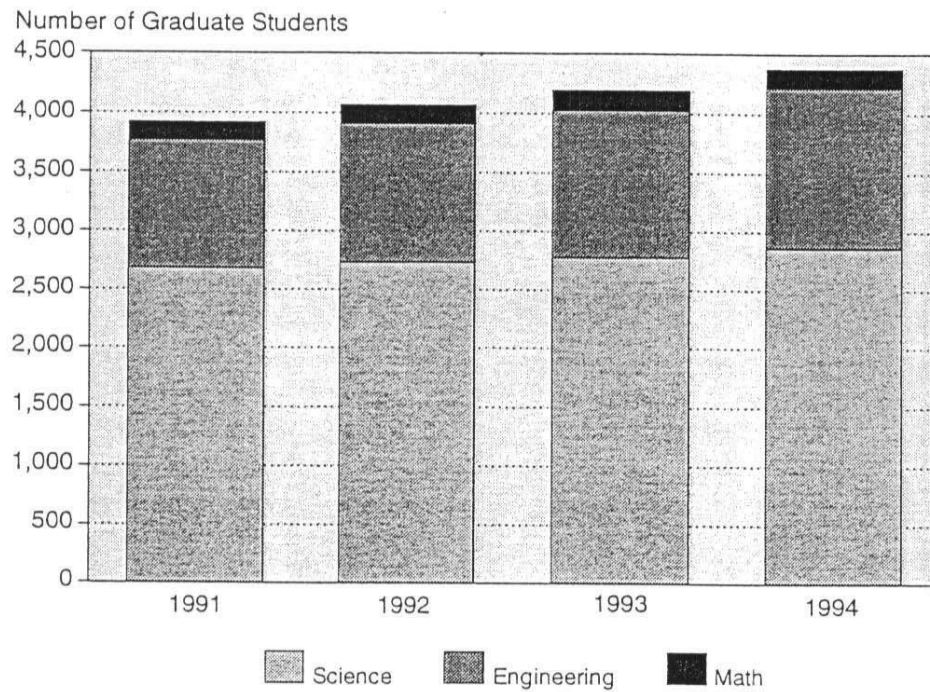
*Includes instructors, assistant, associate, and full professors
Source: Institutional databases.

Graduate Enrollment

Graduate enrollment has increased slightly since 1991. Figure 4 shows that total science, engineering and math graduate enrollment increased from 3,918 in 1991 to 4,380 in 1994. Table 6 shows that enrollment in the sciences increased seven percent, engineering increased 25 percent, and math increased seven percent, for an overall increase of 12 percent.

³KSU'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 University of Akron, Portland State University, Virginia Commonwealth University, Western Michigan University, University of North Carolina-Greensboro and University of Wisconsin-Milwaukee.

Figure 4
Science, Engineering, and Math Graduate Enrollment
KSU, KU, and WSU



Source: Institutional databases.

Table 6
SEM GRADUATE ENROLLMENT

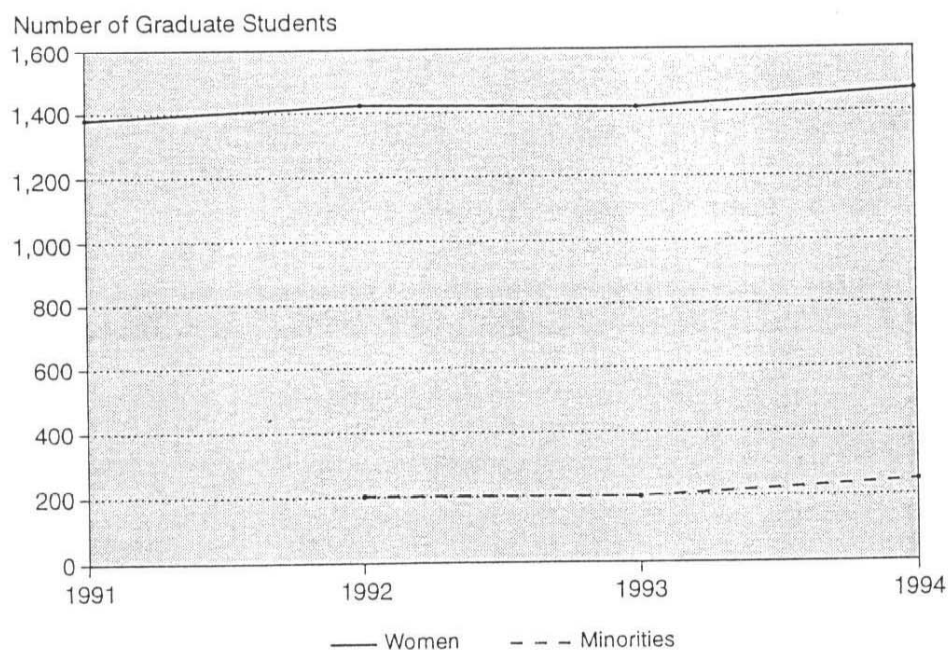
STATE:	1991	1992	1993	1994	1991-1994 % Change
Science	2,683	2,732	2,779	2,862	7%
Engineering	1,089	1,179	1,251	1,362	25%
Math	146	158	165	156	7%
TOTAL	3,918	4,069	4,195	4,380	12%

Source: Institutional databases.

Figure 5 illustrates the modest increase in number of women and minority SEM graduate students enrolled. Number of women increased from 1,382 to 1,467. Table 7 shows that the greatest change or increase occurred in engineering, which increased 42 percent from 1991 to 1994. Women make up one third of the total SEM graduate enrollment. The number of women enrolled increased six percent while the total SEM graduate enrollment (men and women) increased 12 percent. Minorities comprise approximately ten percent of the state's total population, and, in 1994, six percent of the SEM graduate enrollment were minority students. Number of minority students enrolled increased 22 percent from 1992 to 1994 (Table 8) . Thus, the number of SEM women and minority graduate students remains below levels represented in the total population. Appendix C contains detailed graduate enrollment data.

Table 9 shows the number of science, engineering, and math students enrolled in graduate studies compared to the number receiving financial support. For the 1994 academic year, 73 percent of those enrolled in SEM graduate studies at KSU received support, 55 percent received support at KU, and 24 percent were supported at WSU. Student hourly positions are not included. Also, only those enrolled full time are eligible for graduate teaching and research assistantships. So, at KSU for example, 38 percent are enrolled part time and not eligible for assistantships. At WSU, a large number of those enrolled are Wichita residents employed by local industry. These are often part-time students who do not seek support through research and teaching assistantships.

Figure 5
Science, Engineering, and Math
Women and Minority Graduate Enrollment



Source: Institutional databases.

Table 7
SEM WOMEN GRADUATE ENROLLMENT

STATE	1991	1992	1993	1994	1991-1994 % Change
Science	1,212	1,222	1,198	1,235	2%
Engineering	126	145	161	179	42%
Math	44	56	55	53	20%
Total Women	1,382	1,423	1,414	1,467	6%
Total Grad. Enroll.	3,918	4,069	4,195	4,380	12%
% Women	35%	35%	34%	33%	

Source: Institutional databases.

Table 8
SEM MINORITY GRADUATE ENROLLMENT

STATE	1992	1993	1994	1992-1994 % Change
Science	145	132	160	22%
Engineering	50	59	76	52%
Math	7	8	10	43%
Total Minority	202	199	246	22%
Total Grad. Enroll.	4,069	4,195	4,380	8%
% Minority	5%	5%	6%	

Source: Institutional databases.

Table 9
POSTGRADUATES* RECEIVING FINANCIAL SUPPORT COMPARED
TO GRADUATE ENROLLMENT

	1991	1992	1993	1994
KSU				
Supported	841	809	961	1,057
Enrolled	1,216	1,282	1,361	1,442
% Supported	69%	63%	71%	73%
KU				
Supported	1,003	1,103	1,090	1,039
Enrolled	1,702	1,881	1,817	1,880
% Supported	59%	61%	60%	55%
WSU				
Supported	205	172	211	255
Enrolled	1,000	968	1,017	1,058
% Supported	21%	18%	21%	24%
State				
Supported	2,049	2,084	2,262	2,351
Enrolled	3,918	4,069	4,195	4,380
% Supported	52%	51%	54%	54%

* 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. At KSU, 38 percent were part-time enrollments in 1994 and not eligible for assistantships.

Source: Institutional databases.

Degrees Awarded

Figure 6 shows the number of science, engineering and math degrees awarded from 1991 to 1994. The total number of degrees awarded increased approximately 800. Table 10 shows that, from 1991 to 1994, the number of Ph.Ds awarded increased 20 percent, the number of master's degrees increased 41 percent, and the number of bachelor degrees increased 18 percent.

Figure 7 shows the slow but steady increase in number of degrees awarded to women and minorities. While the number of Ph.D. degrees awarded remained small, more women and minorities earned Ph.D. degrees in 1994 than in 1991 (Table 10). Appendix D contains detailed information regarding degrees awarded at the three universities.

Figure 6
Science, Engineering, and Math Degrees Awarded
KSU, KU, and WSU

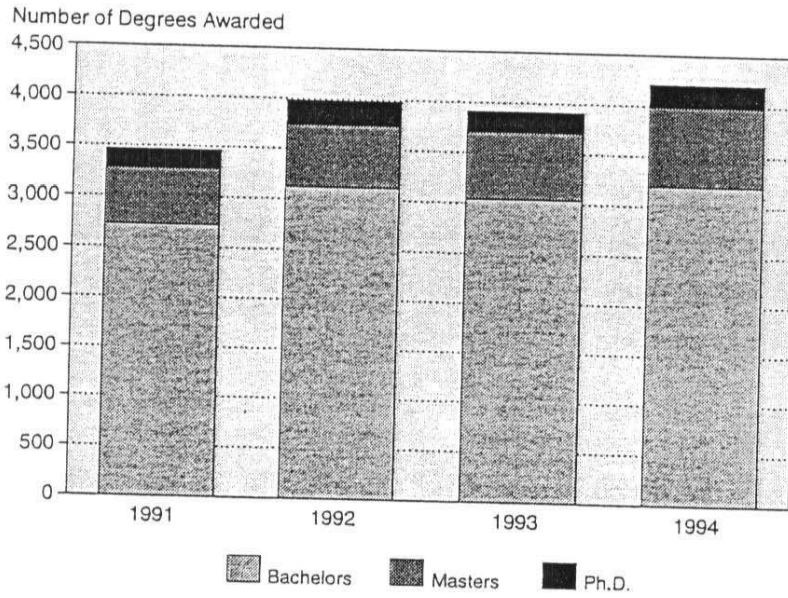


Figure 7
Degrees* Awarded to Women and Minorities
KSU, KU, and WSU

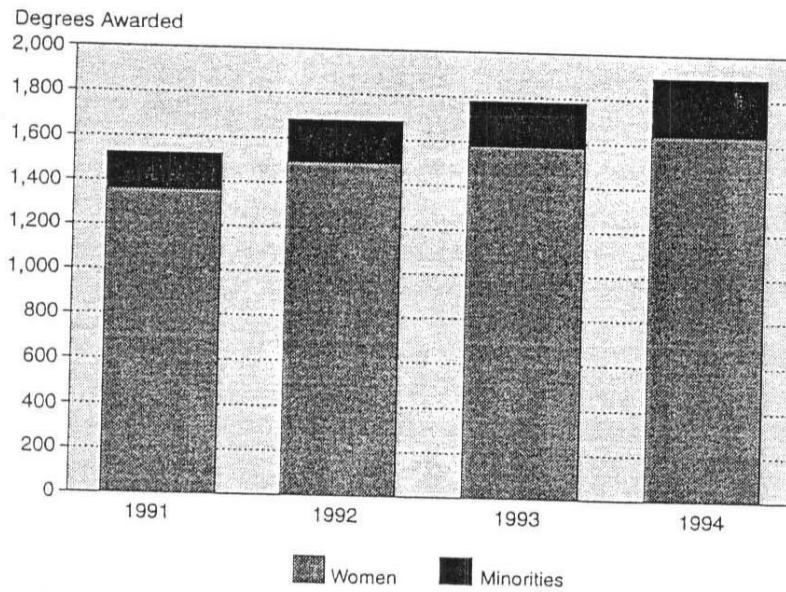


Table 10
SEM DEGREES AWARDED: KSU, KU, AND WSU

	1991	1992	1993	1994	1991-1994 % Change
Total Population					
Ph.D.	182	236	197	218	20%
Master	559	621	675	787	41%
Bachelor	2,723	3,123	3,039	3,205	18%
Subtotal	3,464	3,980	3,911	4,210	22%
Women Only					
Ph.D.	40	60	61	57	43%
Master	210	202	285	327	56%
Bachelor	1,111	1,233	1,235	1,257	13%
Subtotal	1,361	1,495	1,581	1,641	21%
% Women	39%	38%	40%	39%	
Minorities Only*					
Ph.D.	1	2	12	11	1000%
Master	16	15	34	29	81%
Bachelor	147	172	154	218	48%
Subtotal	164	189	200	258	57%
% Minorities	5%	5%	5%	6%	

* KSU ethnic data for science and math are not available from the institution's database.
Source: Institutional databases.

SCIENCE, ENGINEERING, AND MATH GRANT ACTIVITY

Grant Database

The guidelines used to compile the grant database were as follows:

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.
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

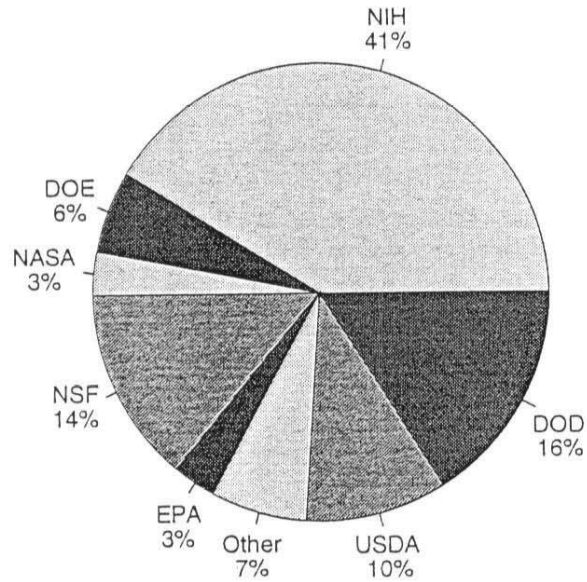
Kansas. In FY 1993, 14 percent of all federal R&D academic obligations in Kansas came from NSF (Figure 8). In FY 1994, science, engineering, and math faculty at KSU, KU-Lawrence, and WSU submitted 306 proposals to NSF. One hundred thirteen or 37 percent were funded for a total of \$59,859,222.⁴ The number of NSF proposals submitted (funded plus not funded) increased dramatically in 1992, the first year NSF EPSCoR was funded, and again in 1994 (Figure 9). The number funded increased in 1994 after showing no change during the three previous years (Figure 9). The number of NSF proposals funded in 1994 was 113, an increase of 49 percent over 1993 and an increase of 57 percent over 1991 (Table 11). The number of NSF proposals submitted (funded plus not funded) increased 27 percent from 1993 to 1994 and increased 117 percent from 1991 to 1994.

Figure 10 charts the dollars awarded from NSF to SEM faculty. A similar pattern emerges. Dollars funded plus not funded rose in 1992 (first year of EPSCoR funding) and in 1994, while dollars funded increased in those same years. Dollars funded increased 43 percent from FY 1993 to FY 1994 and increased 88 percent from FY 1991 to FY 1994 (Table 11). Without NSF EPSCoR dollars, growth in funding increased 53 percent from FY 1993 to 1994 and increased 63 percent from FY 1991 to 1994 (Table 11).

Dollars awarded by NSF to SEM faculty at KSU increased \$3.9 million from approximately \$3 million in FY 1991 to about \$7 million in FY 1994, making KSU the lead institution for NSF funding. WSU increased NSF dollars awarded to its SEM faculty and funding at KU grew from approximately \$2.8 million FY 1991 to approximately \$3.5 million in FY 1994. See Appendix E for detailed summaries of NSF grant activity by institution.

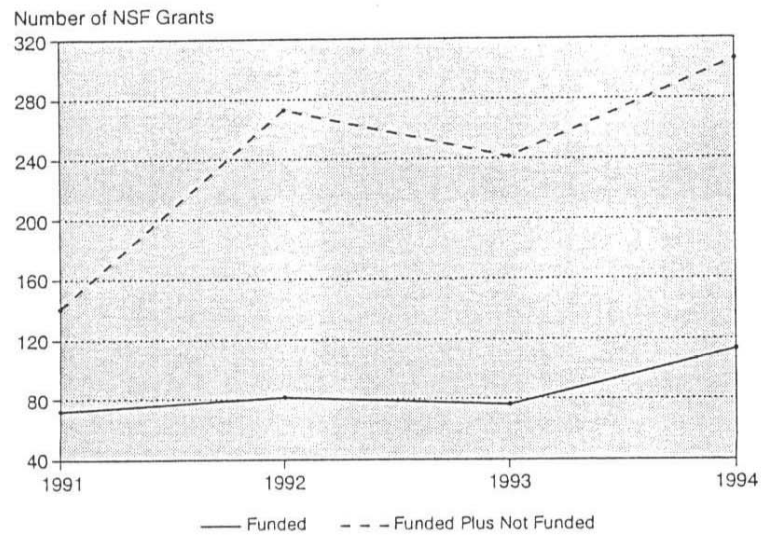
⁴Since 31 grants were still pending at the time data were collected, the number of grants funded could increase.

Figure 8
Federal R&D Academic Obligations in Kansas, by Agency
FY 1993 Total \$62,468,000



Source Quantum Research Corporation

Figure 9
Number of Science, Engineering, and Math NSF Grants
KSU, KU, and WSU



Source: institutional databases.

Table 11
NSF Grant Activity: FY 1991 - FY 1994

TOTAL:

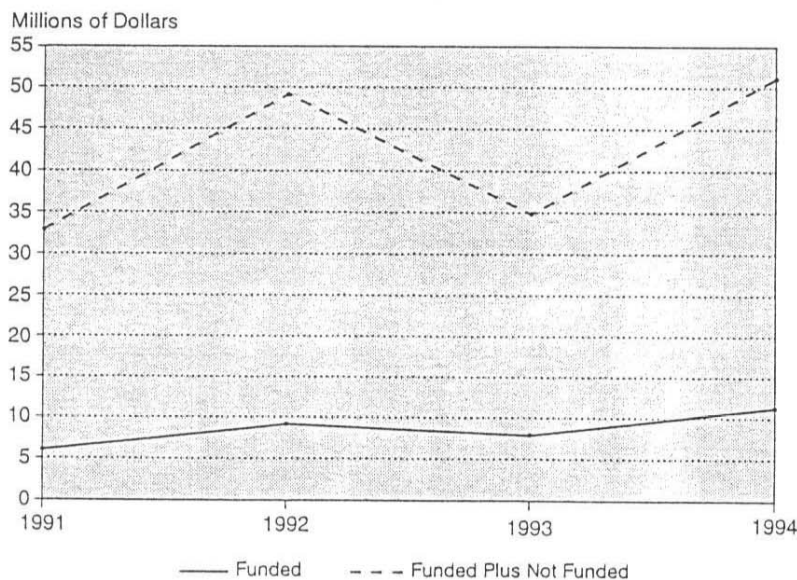
Year	No.	Funded		Funded+Not Funded	
		Dollars	(w/o EPSCoR)	No.	Dollars
1991	72	\$6,009,723	(\$6,009,723)	141	\$32,853,113
1992	81	\$9,179,127	(\$7,699,127)	273	\$49,144,694
1993	76	\$7,912,298	(\$6,432,298)	241	\$34,816,659
1994*	113	\$11,289,373	(\$9,809,373)	306	\$51,173,857

% CHANGE:

Year	No.	Funded		Funded+Not Funded	
		Dollars	(w/o EPSCoR)	No.	Dollars
93-94*	49%	43%	(53%)	27%	47%
91-94*	57%	88%	63%	117%	56%

* Includes grants still pending.
Source: Institutional databases.

Figure 10
Science, Engineering, and Math NSF Grant Dollars
KSU, KU, and WSU



Nation. While these NSF funding trends are encouraging, Kansas still has not reached competitive levels. Figure 11 shows that the US average for NSF R&D academic obligations was between \$30 million and \$35 million in FY 1993, while the level of NSF funding awarded to academic institutions in Kansas (including NSF EPSCoR awarded in 1992 and 1993) was close to \$9 million. 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 12 shows that Kansas was well below the U.S. average in dollars awarded per 1000 population.

Total Grants Submitted and Awarded

Kansas. The number of proposals submitted (funded and not funded) by SEM faculty to all agencies and funding sources has risen steadily, while the number of proposals funded has leveled off (Figure 13). Table 12 shows that the number of proposals funded by all sources was 697 in 1991 and rose to 957 in 1994. This was an increase of 37 percent from 1991 to 1994, but a decrease of one percent from 1993 to 1994. Since some FY 1994 proposals were still pending, concluding that grant success decreased in FY 1994 would be premature.

Figure 14 shows that the total dollars submitted (funded plus not funded) to all agencies and funding sources increased dramatically over the four year period, but the dollars funded increased at a more modest rate. The dollars funded increased 35 percent from 1991 to 1994 (Table 12). The 1994 total dollars funded increased 9 percent over the 1993 level. Again, because some proposals are still pending, this trend could improve if some of those grants are funded.

KSU funding increased from \$18.7 million (FY 1991) to \$31.1 million (FY 1994), a 66 percent increase of over \$12 million. Funding at WSU grew 30 percent from approximately \$2.4 million to \$3.1 million. SEM funding on the KU Lawrence campus rose from \$30.2 million to \$35 million (16 percent increase).⁵ See Appendix F for details regarding total grant activity.

⁵KU Medical Center is not included in KU data.

Figure 11
NSF R&D Academic Obligations, FY 1980-FY 1993

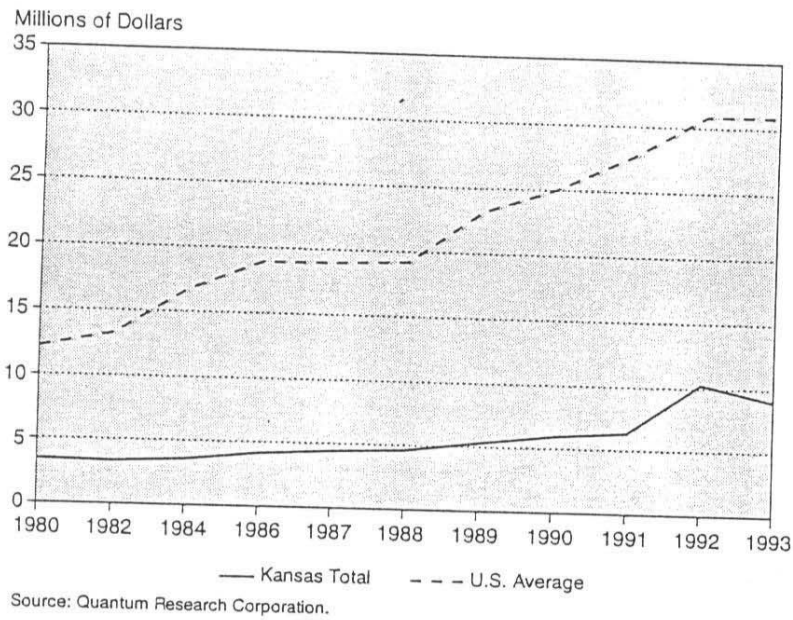


Figure 12
Total NSF R&D Academic Obligations
Per 1000 Population, FY 1980-FY1993

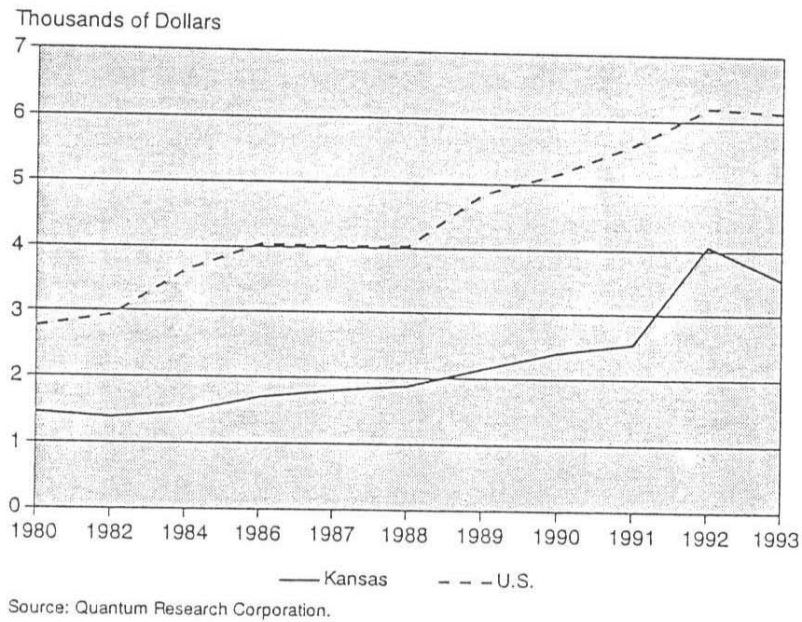
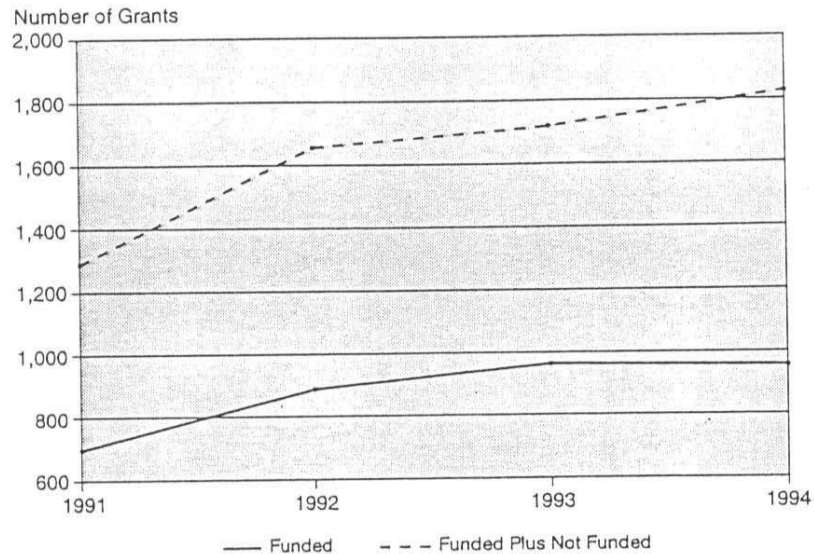


Figure 13
Number of Science, Engineering, and Math Grants
from All Agencies: KSU, KU, and WSU



Source: Institutional databases.

Table 12
Total Grant Activity

TOTAL:

Year	Funded		Funded+Not Funded	
	No.	Dollars	No.	Dollars
1991	697	\$51,385,542	1,289	\$135,262,380
1992	888	\$67,505,762	1,655	\$183,299,474
1993	964	\$63,797,151	1,718	\$170,734,664
1994*	957	\$69,303,131	1,826	\$241,977,778

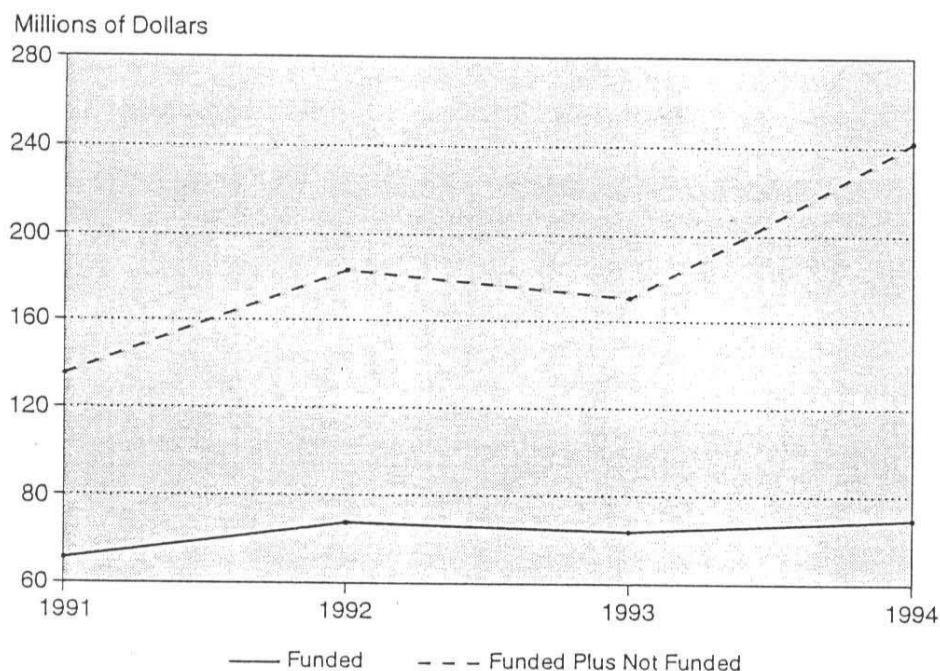
% CHANGE:

Year	Funded		Funded+Not Funded	
	No.	Dollars	No.	Dollars
93-94*	-1%	9%	6%	42%
91-94*	37%	35%	42%	79%

* Includes grants still pending.

Source: Institutional databases.

Figure 14
Science, Engineering, and Math Grant Dollars Awarded
from All Agencies: KSU, KU, and WSU



Source: Institutional databases.

Nation. How does Kansas compare with other states? Kansas ranks 32nd in total (federal, state, and other) academic research and development spending in FY 1993.⁶ Table 13 shows Kansas doctoral granting institutions received more federal dollars in FY 1993 than did Nebraska and Oklahoma but 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 15). Figure 16 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.

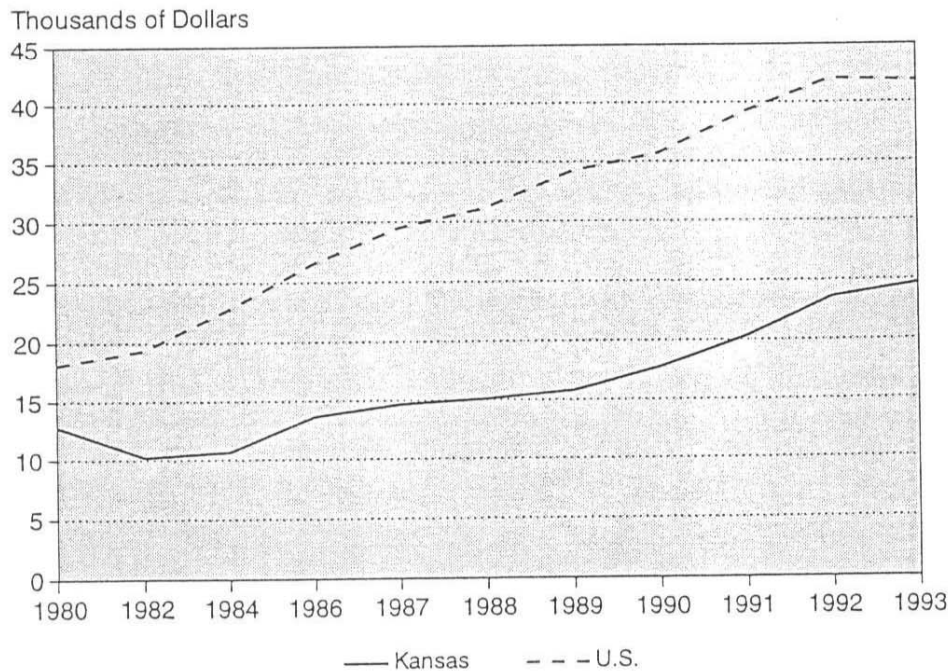
⁶*Science and Engineering State Profiles*. Prepared by the National Science Foundation/Division of Science Resources Studies. Data compiled from numerous sources.

Table 13
Federal Obligations for Science and Engineering Research and Development to
Universities and Colleges by State

State	FY 1986 (in thousands)	FY 1993 (in thousands)	% Change	1990 Census (in thousands)	\$ per Capita
Colorado	\$108,473	\$208,487	92%	3,294	\$63
Iowa	\$74,279	\$132,338	78%	2,777	\$48
Missouri	\$111,289	\$197,385	77%	5,117	\$39
Nebraska	\$24,524	\$41,077	67%	1,578	\$26
Kansas	\$33,239	\$62,468	88%	2,478	\$25
Oklahoma	\$29,468	\$45,077	53%	3,146	\$14

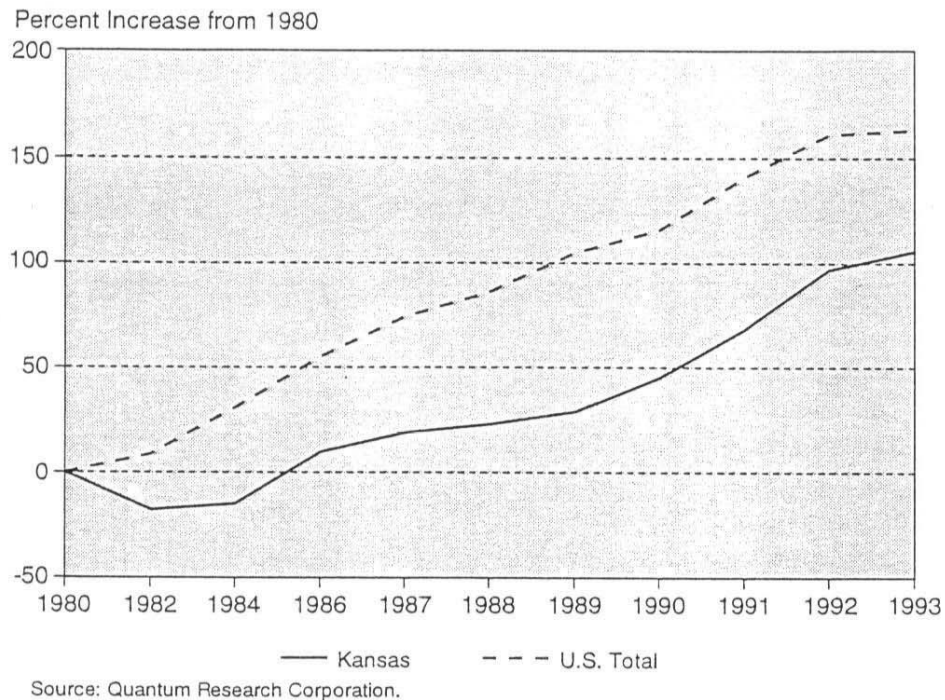
Source: NSF Survey of Federal Support to Universities, Colleges, and Nonprofit Institutions, Fiscal Year 1993.
 (Table B3).

Figure 15
Total Federal R&D Academic Obligations Per 1,000 Population,
FY 1980-FY 1993



Source: Quantum Research Corporation.

Figure 16
Percent Increase in Federal R&D Academic Obligations,
FY 1980 - FY 1993



Comparison by institution is also revealing. Table 14 presents the R&D expenditures at universities in neighboring states in FY 1993. Kansas' institutions have fallen behind neighboring state institutions in total R&D expenditures. The comparison becomes even more unfavorable when peer institutions are compared. For example KSU's ranking is much lower than its peer institutions, Iowa State University and Colorado State University. When comparing KU's ranking with its peers, University of Colorado, University of Iowa, and University of Oklahoma, its ranking for total dollars is also much lower.

Table 14
R&D Expenditures at Universities by Source of Funds
FY 1993 (Dollars in Thousands)

Neighboring State Institution	Total (rank)	\$ Federal Gov.	State & Local Gov.
U. of Colorado	\$176,266 (28)	\$129,894	\$1,730
U. of Iowa	135,418 (42)	88,360	2,389
Iowa State U.	132,580 (43)	45,144	28,201
U. of Missouri	97,242 (65)	28,047	13,074
U. of Oklahoma	92,146 (69)	29,733	10,966
U. of Nebraska	91,427 (70)	25,382	33,155
Colorado State U.	88,132 (73)	59,766	10,460
U. of Kansas	75,004 (87)	31,992	2,828
Oklahoma State U.	71,238 (89)	15,384	7,544
Kansas State U.	57,723 (101)	18,583	25,856*

Wichita State University is not included in the top 200 institutions.

* Includes \$3.7 million from other Kansas agencies and \$22.1 in state appropriations for the Agricultural Experimental Station and the Engineering Experimental Station.

Source: NSF Survey of Scientific and Engineering Expenditures at Universities and Colleges: FY 1993 (Tables B35).

EPSCoR Faculty Grant Activity

Table 15 presents the grant activity levels of faculty funded by NSF EPSCoR for FY 1992 (the first year of NSF EPSCoR funding) through FY 1994. These data include only those grants where faculty served as the principal investigator and do not include NSF EPSCoR awards. The number of proposals submitted by NSF EPSCoR funded faculty increased 14 percent from 1992 to 1994, and the number of grants awarded to EPSCoR funded faculty increased 22 percent. The percentage of grants awarded in 1992 was 47 percent, while the percentage awarded in 1994 was 51 percent. The dollars awarded increased 58 percent from \$5.3 million in FY 1992 to \$8.3 million in FY 1994. These trends are encouraging. EPSCoR funded faculty are writing more grants and improving the rate at which they are being awarded grants.

Table 15
Total Grant Activity of EPSCoR Funded Faculty*
(N=85)

	FY 1992	FY 1993	FY 1994	% Change
Proposals Submitted	190	201	216	14%
Grants Awarded	90	106	110	22%
Percent Awarded	47%	53%	51%	
Dollars Awarded	\$5,309,597	\$5,914,844	\$8,392,861	58%

*Includes only those grants where faculty served as principal investigator. Does **not** include NSF EPSCoR.

Source: Institutional databases.

Figure 17 shows how faculty funded by EPSCoR are increasing the total dollars awarded to them. In FY 1992, the first year of EPSCoR funding, 15 EPSCoR funded faculty were awarded grants totaling less than \$50,000, six were awarded between \$50,000 - \$99,999, and 19 were awarded in the six-figure range (\$100,000 - \$999,999). In FY 1994, funding of EPSCoR faculty increased dramatically in the \$50,000 - \$99,999 range from six faculty to 20. The number of faculty awarded grants totaling \$100,000 - \$999,999 increased from 19 to 23, and one faculty received awards totaling over \$1 million. This increase in number of faculty receiving larger awards is an important trend. The initial assessment of the SEM infrastructure done in 1991,⁷ noted that young faculty needed mentoring to help increase the pool of faculty receiving large awards. Among the 85 faculty who have received EPSCoR funds from FY 1992 to FY 1994, 47 percent received some degree of funding in FY 1992 and 71 percent received funding in FY 1994 (Table 16). Among EPSCoR funded faculty, the pool of faculty receiving awards has increased and the number bringing in larger amounts of dollars is increasing slowly. See Appendix G for detailed information about EPSCoR faculty grant activity.

⁷*Assessment of Science and Engineering Infrastructure at Three Universities in Kansas: Identification of Weaknesses and Barriers to Research*, Institute for Public Policy and Business Research, University of Kansas, Lawrence, KS. March 1992.

Figure17
Change in Distribution of Total Dollars Awarded
Number of EPSCoR Faculty Within Each Funding Range

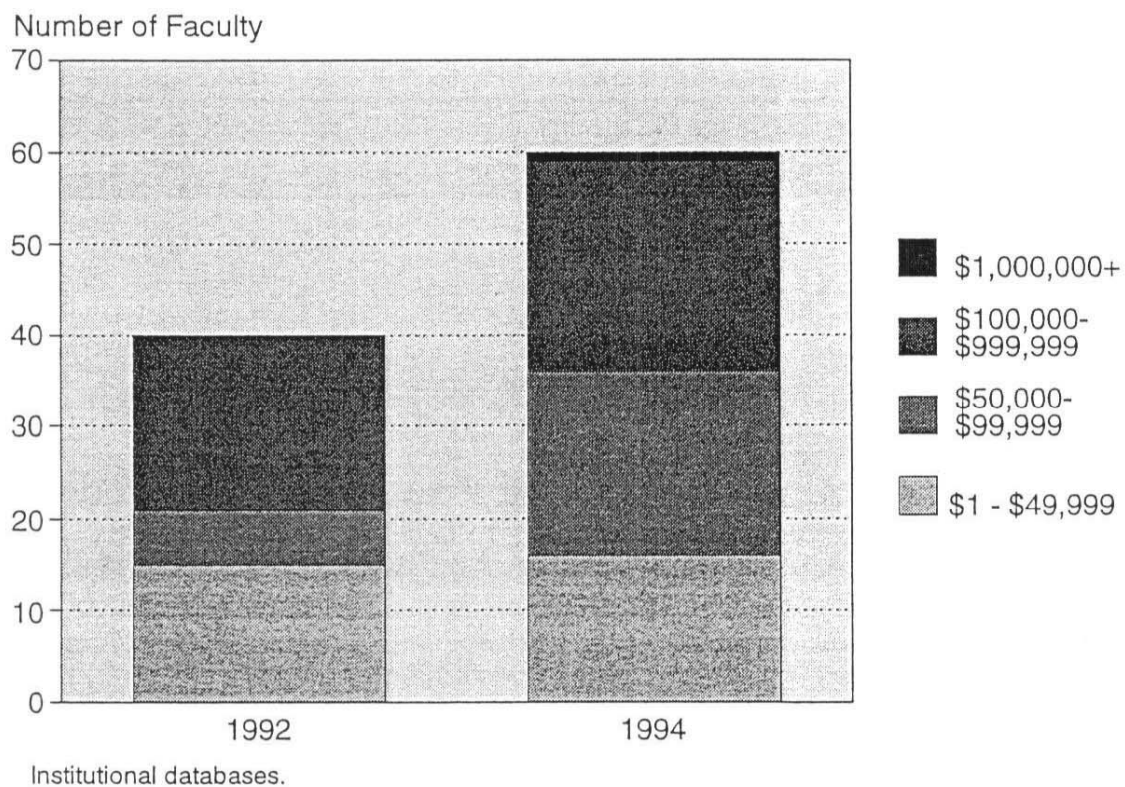


Table 16
EPSCoR Funded Faculty and Size of Awards*

Dollars Awarded:	Number of EPSCoR Faculty Within Each Funding Range:							
	KSU (N=32)		KU (N=39)		WSU (N=14)		STATE (N=85)	
	1992	1994	1992	1994	1992	1994	1992	1994
\$1 - \$49,999	6	4	6	8	3	4	15	16
\$50,000-\$99,999	3	7	3	10	0	3	6	20
\$100,000-\$999,999	8	11	11	10	0	2	19	23
\$1,000,000 +	0	1	0	0	0	0	0	1
Total Number:	17	23	20	28	3	9	40	60
Percent of Total:	53%	72%	51%	72%	21%	64%	47%	71%

*Includes only those grants where faculty served as principal investigator. Does not include NSF EPSCoR awards.
Source: Institutional databases.

CONCLUSIONS

Kansas has participated in the NSF EPSCoR program for three years. In FY 1994, EPSCoR funding of \$1.48 million from NSF and \$1.5 million from the state was approximately four percent of the total grant dollars funded at the state's three Ph.D. granting institutions. Has EPSCoR funding helped improve the state's ability to compete for its fair share of federal research dollars? The answer to that question is both yes and no:

- The state increased the grant dollars received from the federal government, but it still lags behind the U.S. average.
- Dollars awarded to faculty funded by EPSCoR increased 58 percent from \$5.3 million in FY 1992 (first year of EPSCoR funding) to \$8.3 million in FY 1994.
- The number of EPSCoR funded faculty receiving awards increased from 47 percent in FY 1992 to 71 percent in FY 1994. The number of faculty receiving larger awards also increased.

- Dollars awarded to all SEM faculty increased three percent from FY 1992 to FY 1994.
- The number of SEM faculty did not increase substantially from 1991 to 1994.
- The number of women and minorities on the faculty has increased, but remains below the percentage represented in the state's total population.
- Faculty salaries continue below those offered at peer institutions.
- SEM graduate enrollment grew 12 percent, with the largest increase occurring in engineering.
- The number of SEM degrees awarded increased 22 percent, with the greatest increase occurring in number of master degrees awarded.
- Number of women and minorities enrolled and receiving degrees increased.

These trends are, on the whole, more positive than negative, and show the state's Ph.D. granting institutions are making progress in key areas. Some institutions are increasing graduate enrollment and grant activity more rapidly than others. Future assessment should examine how these institutions have utilized resources to encourage and support that growth. With continued effort and support, the state should be able to continue to improve the competitive position of its academic research institutions.

Appendix A

Departments/Units Included in Database

DEPARTMENTS/UNITS INCLUDED IN DATABASE⁸

KSU	Electrical & Computer	Herbarium
<u>Science</u>	Industrial/Manufacturing	Higuchi Biosciences Ctrs.
Animal Science	Operations Research	Human Development
Food Science	Mechanical	Public Policy & Bus. Res.
Genetics	Nuclear	Interdisc. Environ. Studies
Agronomy		Kansas Biological Survey
Biochemistry	KU (Lawrence Campus)	Kansas Geological Survey
Entomology	<u>Science</u>	Mass Spec Lab
Grain Science	Academic Computing	Medicinal Chemistry
Horticulture	Animal Care Unit	Microbiology
Plant Pathology	Anthropology	Museum Natural History
Biology	Anthropology Museum	Museum Inv. Paleontology
Microbiology	Biological Sciences	NMR Lab
Chemistry	Biochemistry	Paleontological Inst.
Geology	Biology	Pharmaceutical Chemistry
Physics	Botany	Pharmacol. & Toxicology
Political Sci/Public Admin.	Entomology	Pharmacy Practice
Psychology	Environmental Studies	Physics & Astronomy
Sociology/Anthro/	Physiol. & Cell Biology	Psychology
Social Work	Systematics & Ecology	Science Instrument Lab
Statistics	Biomedical Research	Sociology
Economics	Biological Survey	
Geography	Bureau of Child Research/	<u>Math</u>
Foods & Nutrition	Life Span Institute	
Anatomy & Physiology	Chemistry	<u>Engineering</u>
Clinical Sciences	Child Development Lab	Aerospace
Pathology/Microbiology	Computer Science	Applied Remote Sensing
	Ctr. Bioanalytical Research	Architectural Engineering
<u>Math</u>	Ctr. Biomedical Research	CRINC
	Ctr. Drug Delivery	Chemical & Petroleum
<u>Engineering</u>	Ctr. Neurobiology & Immun.	Civil
Agricultural	Early Childhood Institute	Ctr. Energy Res/Dev.
Agricultural Technology	Economics	Ctr. Excel/CECASE
Architectural	Entomology Museum	Electrical & Computer
Chemical	Exper. & Applied Ecology	Engineering Management
Civil	Geography	Mechanical
Computer Science	Geology	Space Technology Ctr.
Information Systems	Gerontology Ctr.	Tertiary Oil Recovery Proj

⁸Departments listed under Science, Engineering, and Math are included in all databases: 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.

Transportation Res. Ctr.
Water Resources Institute

WSU

Science

Curriculum & Instruction
Industrial Technology
Communicative Disorders
Biological Sciences
Chemistry
Geology
Computer Science
Physics
Psychology
Anthropology
Clinical Sciences
Health Admin &
Gerontology
Nursing
Dental Hygiene
Respiratory Therapy
Medical Technology
Gerontology Ctr.
Physical Therapy
Physician Assistant

Math

Engineering

Aerospace
Electrical
Industrial
Mechanical
Special Projects
Wind Tunnel
NIAR

Appendix B

SEM Faculty and Personnel

NUMBER OF SEM FACULTY

					1993-1994	1991-1994
	1991	1992	1993	1994	% Change	% Change
KSU						
Science	479	471	472	482	2%	1%
Engineering	115	111	106	128	21%	11%
Math	29	31	33	32	-3%	10%
Subtotal	623	613	611	642	5%	3%
KU-Lawrence						
Science	286	295	300	296	-1%	3%
Engineering	76	76	75	86	15%	13%
Math	37	38	40	38	-5%	3%
Subtotal	399	409	415	420	1%	5%
WSU						
Science	138	132	130	126	-3%	-9%
Engineering	44	46	45	45	0%	2%
Math	27	26	25	25	0%	-7%
Subtotal	209	204	200	196	-2%	-6%
STATE						
Science	903	898	902	904	0%	0%
Engineering	235	233	226	259	15%	10%
Math	93	95	98	95	-3%	2%
TOTAL	1,231	1,226	1,226	1,258	3%	2%

NUMBER OF WOMEN FACULTY

KSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	54	54	60	64	7%	19%
Engineering	4	4	5	6	20%	50%
Math	0	0	0	0	0%	0%
Subtotal	58	58	65	70	8%	21%
% of Total	9%	9%	11%	11%		
KU-Lawrence						
Science	45	53	57	60	5%	33%
Engineering	2	2	4	5	25%	150%
Math	3	3	3	3	0%	0%
Subtotal	50	58	64	68	6%	36%
% of Total	13%	14%	15%	16%		
WSU						
Science	52	49	46	47	2%	-10%
Engineering	2	2	2	2	0%	0%
Math	1	0	0	0	0%	0%
Subtotal	55	51	48	49	2%	-11%
% of Total	26%	25%	24%	25%		
STATE						
Science	151	156	163	171	5%	13%
Engineering	8	8	11	13	18%	63%
Math	4	3	3	3	0%	0%
TOTAL	163	167	177	187	6%	15%
% of TOTAL	13%	14%	14%	15%		

NUMBER OF MINORITY FACULTY

KSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	36	40	40	39	-3%	8%
Engineering	16	16	14	22	57%	38%
Math	6	8	9	9	0%	0%
Minority total	58	64	63	70	11%	21%
% of Total	9%	10%	10%	11%		

KU-Lawrence

Science	24	25	24	27	-4%	0%
Engineering	10	12	12	14	0%	20%
Math	5	6	9	9	50%	80%
Subtotal	39	43	45	50	5%	15%
% of Total	10%	11%	11%	12%		

WSU

Science	15	16	17	15	-12%	0%
Engineering	10	12	12	14	17%	40%
Math	7	7	6	8	0%	0%
Subtotal	32	35	35	37	6%	16%
% of Total	15%	17%	18%	19%		

STATE

Science	75	81	81	81	0%	8%
Engineering	36	40	38	50	32%	39%
Math	18	21	24	26	0%	0%
TOTAL	129	142	143	157	10%	22%
% of TOTAL	10%	12%	12%	12%		

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

ACADEMIC YEAR BEGINNING FALL OF

SCIENCE	1991				1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	425	241	86	752	417	242	83	742	412	243	84	739	418	236	79	733
Female	54	45	52	151	54	53	49	156	60	57	46	163	64	60	47	171
Total	479	286	138	903	471	295	132	898	472	300	130	902	482	296	126	904
% Female	11%	16%	38%	17%	11%	18%	37%	17%	13%	19%	35%	18%	13%	20%	37%	19%
White	427	262	123	812	432	270	116	818	432	276	113	821	443	269	111	823
African Amer.	0	2	1	3	0	2	1	3	0	2	1	3	0	3	2	5
Hispanic	2	0	1	3	4	0	0	4	3	0	0	3	3	0	0	3
Asian/Pac.Isl.	33	22	13	68	36	22	15	73	36	21	16	73	35	23	13	71
Am.Ind./Alaskan	1	0	0	1	0	1	0	1	1	1	0	2	1	1	0	2
Total *	463	286	138	887	472	295	132	899	472	300	130	902	482	296	126	904
% Minority	8%	8%	11%	8%	8%	8%	12%	9%	8%	8%	13%	9%	8%	9%	12%	9%

MATH	1991				1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	29	34	26	89	31	35	26	92	33	37	25	95	32	35	25	92
Female	0	3	1	4	0	3	0	3	0	3	0	3	0	3	0	3
Total	29	37	27	93	31	38	26	95	33	40	25	98	32	38	25	95
% Female	0%	8%	4%	4%	0%	8%	0%	3%	0%	8%	0%	3%	0%	8%	0%	3%
White	23	32	20	75	23	32	19	74	24	31	19	74	23	29	17	69
African Amer.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hispanic	1	2	1	4	1	2	1	4	1	2	1	4	1	1	1	3
Asian/Pac.Isl.	5	3	6	14	7	4	6	17	8	7	5	20	8	8	7	23
Am.Ind./Alaskan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	29	37	27	93	31	38	26	95	33	40	25	98	32	38	25	95
% Minority	21%	14%	26%	19%	26%	16%	27%	22%	27%	23%	24%	24%	28%	24%	32%	27%

ENGINEERING	1991				1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	111	74	42	227	107	74	44	225	101	71	43	215	122	81	43	246
Female	4	2	2	8	4	2	2	8	5	4	2	11	6	5	2	13
Total	115	76	44	235	111	76	46	233	106	75	45	226	128	86	45	259
% Female	3%	3%	5%	3%	4%	3%	4%	3%	5%	5%	4%	5%	5%	6%	4%	5%
White	99	66	34	199	94	64	34	192	92	63	33	188	106	72	31	209
African Amer.	0	1	1	2	0	1	1	2	0	1	1	2	0	1	1	2
Hispanic	1	0	1	2	1	1	1	3	1	1	1	3	1	1	1	3
Asian/Pac.Isl.	15	9	8	32	15	10	10	35	13	10	10	33	20	12	12	44
Am.Ind./Alaskan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	115	76	44	235	110	76	46	232	106	75	45	226	128	86	45	259
% Minority	14%	13%	23%	15%	15%	16%	26%	17%	13%	16%	27%	17%	17%	16%	31%	19%

SCIENCE, MATH & ENGINEERING	1991				1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	565	349	154	1068	555	351	153	1059	546	351	152	1049	572	352	147	1071
Female	58	50	55	163	58	58	51	167	65	64	48	177	70	68	49	187
Total	623	399	209	1231	613	409	204	1226	611	415	200	1226	642	420	196	1258
% Female	9%	13%	26%	13%	9%	14%	25%	14%	11%	15%	24%	14%	11%	16%	25%	15%
White	549	360	177	1086	549	366	169	1084	548	370	165	1083	572	370	159	1101
African Amer.	0	3	2	5	0	3	2	5	0	3	2	5	0	4	3	7
Hispanic	4	2	3	9	6	3	2	11	5	3	2	10	4	2	2	8
Asian/Pac.Isl.	53	34	27	114	58	36	31	125	57	38	31	126	61	43	32	136
Am.Ind./Alaskan	1	0	0	1	0	1	0	1	1	1	0	2	2	1	0	3
Total *	607	399	209	1215	613	409	204	1226	611	415	200	1226	639	420	196	1255
% Minority	10%	10%	15%	11%	10%	11%	17%	12%	10%	11%	18%	12%	10%	12%	19%	12%

* 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.

SME PERSONNEL BY TITLE FOR KSU, KU, AND WSU

ACADEMIC YEAR BEGINNING FALL OF

SCIENCE	1991			1992			1993			1994			%change 1991-1994				
	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL					
Professor	212	158	29	399	221	154	30	405	223	158	27	408	228	155	25	408	2%
Associate Prof.	135	68	41	244	125	72	40	237	119	73	44	236	120	68	45	233	-5%
Assistant Prof.	132	60	68	260	125	69	62	256	130	69	59	258	134	73	56	263	1%
Acad. Staff*	91	111	20	222	92	125	12	229	109	121	34	264	111	110	39	260	17%
Res Assoc/Asst.	181	133	2	316	177	152	1	330	193	136	0	329	175	122	0	297	-6%
Post Docs		45		45		57		57		64		64		50	0	50	11%
Teaching Assist.	186	334	76	596	173	348	76	597	169	350	88	607	181	353	102	636	7%
Student Res.Asst.	274	365	1	640	296	427	8	731	363	411	11	785	413	398	8	819	28%
Technical Staff **	17	56	18	91	21	56	23	100	22	24	0	46	22	16	0	38	-58%
TOTAL	1,228	1,330	255	2,813	1,230	1,460	252	2,942	1,328	1,406	263	2,997	1,384	1,345	275	3,004	7%

MATH	1991			1992			1993			1994			%change 1991-1994				
	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL					
Professor	14	17	5	36	13	17	6	36	12	18	5	35	14	18	6	38	6%
Associate Prof.	6	14	14	34	6	14	12	32	8	14	13	35	9	12	11	32	-6%
Assistant Prof.	9	6	8	23	12	7	8	27	13	8	7	28	9	8	8	25	9%
Academic Staff	1	1	12	14	0	2	12	14	1	2	13	16	2	3	11	16	14%
Res. Assoc./Asst.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ERR
Post Docs		0		0	0	0		0		0		0		1	0	1	ERR
Teaching Assist.	43	50	24	117	37	49	18	104	49	49	17	115	47	52	25	124	6%
Student Res.Asst.	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	ERR
Technical Staff	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	ERR
TOTAL	73	88	63	224	68	89	56	213	83	92	55	230	81	97	61	239	7%
																	ERR

ERR

ENGINEERING * 1991																		
		1992						1993						1994		%change		
		KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	1991-1994
Professor		59	45	18	122	57	43	17	117	56	39	17	112	59	43	14	116	-5%
Associate Prof.		29	18	9	56	28	16	9	53	26	18	11	55	32	23	11	66	18%
Assistant Prof.		27	13	17	57	26	17	20	63	24	18	17	59	37	20	20	77	35%
Academic Staff		8	8	7	23	18	10	7	35	19	17	21	57	14	18	19	51	122%
Res. Assoc/Asst.		18	4	3	25	12	3	7	22	12	3	0	15	10	3	0	13	-48%
Post Docs			0		0		1		1		1		1		1	0	1	ERR
Teaching Assist.		21	43	69	133	9	44	35	88	42	48	56	146	45	44	75	164	23%
Student Res.Asst.		118	29	30	177	105	22	27	154	133	27	39	199	186	13	45	244	38%
Technical Staff		2	11	13	26	5	10	13	28	8	9	0	17	9	2	0	11	-58%
TOTAL		282	171	166	619	260	166	135	561	320	180	161	661	392	167	184	743	20%

SCIENCE, Math 1991																1992																1993																1994																%																																																																																																																																																																																																																
ENGINEERING																KSU																KU																WSU																TOTAL																1991-1994																																																																																																																																																																																																
Professor																285																220																52																557																291																214																53																558																291																215																49																555																301																216																45																562																1%
Associate Prof.																170																100																64																334																159																102																61																322																153																105																68																326																161																103																67																331																-1%
Assistant Prof.																168																79																93																340																163																93																90																346																167																95																83																345																180																101																84																365																7%
Academic Staff																100																120																39																259																110																137																31																278																129																140																68																337																127																131																69																327																26%
Res. Assoc/Asst.																199																137																5																341																189																155																8																352																205																139																0																344																185																125																0																310																-9%
Post Docs																0																45																0																45																0																58																0																65																0																65																0																52																0																52																16%																																
Teaching Assist.																250																427																169																846																219																441																129																789																260																447																161																868																273																449																202																924																9%
Student Res.																392																394																31																817																401																449																35																885																496																439																50																985																599																413																53																1065																30%
Technical Staff																19																67																31																117																26																66																36																128																30																33																0																63																31																19																0																50																-57%
TOTAL																1,583																1,589																484																3,656																1,558																1,715																443																3,716																1,731																1,678																479																3,888																1,857																1,609																520																3,986																9%

* 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.

ACADEMIC YEAR BEGINNING FALL OF

SCIENCE	1991			1992			1993			1994			
	KSU	KU	% Female	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL
Male	595	861	23%	138	1,594	588	921	136	1,645	950	874	145	1,969
Female	173	469	23%	117	759	173	539	116	828	378	532	118	1,028
% Female				46%	32%	23%	37%	46%	33%	28%	38%	45%	34%
White	665	1,016		214	1,895	661	1,124	212	1,997	1,018	1,085	221	2,324
African Amer.	4	25		2	31	5	30	2	37	20	28	5	53
Hispanic	5	32		1	38	5	23	1	29	28	29	2	59
Asian/Pac.Isl.	76	245		35	356	89	276	35	400	258	261	34	553
Am.Ind./Alaskan	2	12		3	17	1	7	2	10	4	3	1	8
% Minority	12%	24%		16%	19%	13%	23%	16%	19%	23%	23%	16%	22%
MATH	1991			1992			1993			1994			
	KSU	KU	% Female	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL	KSU	KU	WSU TOTAL
Male	30	64		51	145	31	65	47	143	69	72	44	185
Female	0	24		12	36	0	24	9	33	14	20	11	45
% Female	0%	27%		19%	20%	0%	27%	16%	19%	17%	22%	20%	20%
White	24	66		47	137	23	66	43	132	55	69	41	165
African Amer.	0	0		2	2	0	0	1	1	1	1	3	5
Hispanic	1	2		3	6	1	2	3	6	1	3	4	8
Asian/Pac.Isl.	5	19		11	35	7	19	9	35	26	17	7	50
Am.Ind./Alaskan	0	1		0	1	0	2	0	2	0	2	0	2
% Minority	20%	25%		25%	24%	26%	26%	23%	25%	34%	25%	25%	28%

ENGINEERING	1991				1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	134	156	147	437	138	149	121	408	289	154	144	587	348	149	168	665
Female	10	17	19	46	8	17	14	39	31	26	17	74	43	18	16	77
% Female	7%	10%	11%	10%	5%	10%	10%	9%	10%	14%	11%	11%	11%	11%	9%	10%
White	119	128	98	345	118	121	81	320	182	131	81	394	211	130	89	430
African Amer.	0	6	2	8	0	9	2	11	1	4	2	7	1	1	2	4
Hispanic	1	3	4	8	1	2	1	4	2	2	6	10	4	4	3	11
Asian/Pac.Isl.	24	35	50	109	26	34	42	102	133	42	67	242	173	32	86	291
Am.Ind./Alaskan	0	1	12	13	1	0	9	10	2	1	5	8	2	0	4	6
% Minority	17%	26%	41%	29%	19%	27%	40%	28%	43%	27%	50%	40%	46%	22%	52%	42%

SCIENCE, MATH 1,991 & ENGINEERING	1,992				1,993				1994							
	KSU	WSU	TOTAL	%	KSU	WSU	TOTAL	%	KSU	WSU	TOTAL	%				
Male	759	1,081	336	2,176	757	1,135	304	2,196	1,308	1,100	333	2,741	1,389	1,039	366	2,794
Female	183	510	148	841	181	580	139	900	423	578	146	1,147	466	570	154	1,190
% Female	19%	32%	31%	28%	19%	34%	31%	29%	24%	34%	30%	30%	25%	35%	30%	30%
White	808	1,210	359	2,377	802	1,311	336	2,449	1,255	1,285	343	2,883	1,317	1,240	357	2,914
African Amer.	4	31	6	41	5	39	5	49	22	33	10	65	21	31	10	62
Hispanic	7	37	8	52	7	27	5	39	31	34	12	77	33	32	7	72
Asian/Pac. Isl.	105	299	96	500	122	329	86	537	417	320	108	845	478	298	141	917
Am. Ind./Alaskan	2	14	15	31	2	9	11	22	6	6	6	18	6	8	5	19
% Minority	13%	24%	26%	21%	14%	24%	24%	21%	27%	23%	28%	26%	29%	23%	31%	27%

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

RESEARCH PERSONNEL * RECEIVING FINANCIAL SUPPORT VS. GRADUATE ENROLLMENT

KSU

	1991	1992	1993	1994
Supported	841	809	961	1,057
Enrolled	1,216	1,282	1,361	1,442
% Supported	69%	63%	71%	73%

KU

	1991	1992	1993	1994
Supported	1,003	1,103	1,090	1,039
Enrolled	1,702	1,819	1,817	1,880
% Supported	59%	61%	60%	55%

WSU

	1991	1992	1993	1994
Supported	205	172	211	255
Enrolled	1,000	968	1,017	1,058
% Supported	21%	18%	21%	24%

State

	1991	1992	1993	1994
Supported	2,049	2,084	2,262	2,351
Enrolled	3,918	4,069	4,195	4,380
% Supported	52%	51%	54%	54%

*Includes research associates/assistants, post docs., graduate teaching assistants, student research assistants

Appendix C

SEM Graduate Enrollment

SEM GRADUATE ENROLLMENT

					1993-1994	1991-1994
	1991	1992	1993	1994	% Change	% Change
KSU						
Science	894	930	988	1,009	2%	13%
Engineering	270	297	314	380	21%	41%
Math	52	55	59	53	-10%	2%
Subtotal	1,216	1,282	1,361	1,442	6%	19%
KU-Lawrence						
Science	1,095	1,161	1,168	1,210	4%	11%
Engineering	553	597	587	606	3%	10%
Math	54	61	62	64	3%	19%
Subtotal	1,702	1,819	1,817	1,880	3%	10%
WSU						
Science	694	641	623	643	3%	-7%
Engineering	266	285	350	376	7%	41%
Math	40	42	44	39	-11%	-3%
Subtotal	1,000	968	1,017	1,058	4%	6%
STATE						
Science	2,683	2,732	2,779	2,862	3%	7%
Engineering	1,089	1,179	1,251	1,362	9%	25%
Math	146	158	165	156	-5%	7%
TOTAL	3,918	4,069	4,195	4,380	4%	12%

WOMEN GRADUATE ENROLLMENT

					1993 to 1994	1991-1994
KSU	1991	1992	1993	1994	% Change	% Change
Science	226	224	254	342	35%	51%
Engineering	25	35	39	52	33%	108%
Math	11	18	18	18	0%	64%
Subtotal	262	277	311	412	32%	57%
% of Total	22%	22%	23%	29%		
KU-Lawrence						
Science	464	514	533	569	7%	23%
Engineering	75	80	84	92	10%	23%
Math	22	22	20	19	-5%	-14%
Subtotal	561	616	637	680	7%	21%
% of Total	33%	34%	35%	36%		
WSU						
Science	522	484	411	324	-21%	-38%
Engineering	26	30	38	35	-8%	35%
Math	11	16	17	16	-6%	45%
Subtotal	559	530	466	375	-20%	-33%
% of Total	56%	55%	46%	35%		
STATE						
Science	1212	1222	1198	1235	3%	2%
Engineering	126	145	161	179	11%	42%
Math	44	56	55	53	-4%	20%
TOTAL	1,382	1,423	1,414	1467	4%	6%
% of Total	35%	35%	34%	33%		

MINORITY GRADUATE ENROLLMENT

KSU	1991	1992	1993	1993-1994		1991-1994	
				1994	% Change	% Change	% Change
Science	*	46	36	36	0%	*	*
Engineering	*	13	9	9	0%	*	*
Math	*	3	2	2	0%	*	*
Subtotal	*	62	47	47	0%	*	*
% of Total	*	5%	3%	11%			
KU-Lawrence							
Science	43	51	57	63	11%	47%	
Engineering	19	20	26	25	-4%	32%	
Math	2	4	5	6	20%	200%	
Subtotal	64	75	88	94	7%	47%	
% of Total	4%	4%	5%	14%			
WSU							
Science	38	48	39	61	56%	61%	
Engineering	15	17	24	42	75%	180%	
Math	1	0	1	2	100%	100%	
Subtotal	54	65	64	105	64%	94%	
% of Total	5%	7%	6%	28%			
STATE							
Science	145	132	160	21%			
Engineering	50	59	76	29%			
Math	7	8	10	25%			
TOTAL	202	199	246	24%			
% of TOTAL	5%	5%	6%				

*KSU ethnic data are not available. Unable to calculate percent change due to missing data.

SME GRADUATE ENROLLMENT DEMOGRAPHICS FOR KSU, KU, AND WSU

SCIENCE	1991*				1992				1993				1994				1991-1994	
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	% Change	
Male	609	631	172	1,412	613	647	157	1,417	662	635	212	1,509	667	641	319	1,627		
Female	285	464	522	1,271	317	514	484	1,315	326	533	411	1,270	342	569	324	1,235		
TOTAL	894	1,095	694	2,683	930	1,161	641	2,732	988	1,168	623	2,779	1,009	1,210	643	2,862		
% Female	32%	42%	75%	47%	34%	44%	76%	48%	33%	46%	66%	46%	34%	47%	50%	43%	7%	
White	*	561	609	1,170	509	572	545	1,626	543	546	543	1,632	550	551	478	1,579		
African Amer.		12	17	29	23	12	24	59	11	15	16	42	8	17	17	42		
Hispanic		13	9	22	13	17	12	42	12	17	13	42	17	17	12	46		
Asian/Pac.Isl.		17	3	20	6	20	9	35	9	22	8	39	9	25	31	65		
Am.Ind/Alaskan		1	9	10	4	2	3	9	4	3	2	9	2	4	1	7		
Nonresident Alien		336	47	383	375	336	48	759	409	343	41	793	423	320	104	847		
Not Reported		155	0	155	0	202	0	202	0	222	0	222	0	276	0	276		
% Minority**		7%	6%	6%	8%	8%	8%	8%	6%	9%	7%	7%	6%	10%	11%	9%		
MATH	1991				1992				1993				1994				1991-1994	
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	% Change	
Male	45	32	29	106	44	39	26	109	41	42	27	110	35	45	23	103		
Female	7	22	11	40	11	22	16	49	18	20	17	55	18	19	16	53		
TOTAL	52	54	40	146	55	61	42	158	59	62	44	165	53	64	39	156		
% Female	13%	41%	28%	27%	20%	36%	38%	31%	31%	32%	39%	33%	34%	30%	41%	34%	7%	
White	*	26	13	39	24	27	22	73	29	29	23	81	21	28	17	66		
African Amer.		0	0	0	0	0	0	0	0	1	0	1	0	2	1	3		
Hispanic		0	0	0	0	0	0	0	0	0	1	1	0	0	0	0		
Asian/Pac.Isl.		1	1	2	3	2	0	5	2	2	0	4	2	2	1	5		
Am.Ind/Alaskan		1	0	1	0	2	0	2	0	2	0	2	0	2	0	2		
Nonresident Alien		22	26	48	28	24	20	72	28	19	20	67	30	17	21	68		
Not Reporting		4	0	4	0	6	0	6	0	9	0	9	0	13	0	13		
% Minority		7%	7%	7%	11%	13%	0%	9%	6%	15%	4%	9%	9%	18%	11%	13%		

ENGINEERING	1991			1992			1993			1994			TOTAL			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL				
Male	242	478	240	960	270	517	255	1,042	279	503	312	1,094	328	514	341	1,183
Female	28	75	26	129	27	80	30	137	35	84	38	157	52	92	35	179
TOTAL	270	553	266	1,089	297	597	285	1,179	314	587	350	1,251	380	606	376	1,362
% Female	10%	14%	10%	12%	9%	13%	11%	12%	11%	14%	11%	13%	14%	15%	9%	13%
																25%
White	*	314	112	426	129	314	118	561	135	302	117	554	144	306	114	564
African Amer.		1	3	4	2	3	4	9	2	1	1	4	2	1	3	6
Hispanic		3	2	5	2	4	3	9	2	5	8	15	4	4	6	14
Asian/Pac.Isl.		14	9	23	9	12	9	30	5	19	13	37	3	19	31	53
Am.Ind./Alaskan		1	1	2	0	1	1	2	0	1	2	3	0	1	2	3
Nonresident Alien		160	139	299	155	190	150	495	170	181	209	560	227	177	219	623
Not Reporting		60	0	60	0	73	0	73	0	78	0	78	0	98	0	98
% Minority		6%	12%	7%	9%	6%	13%	8%	6%	8%	17%	10%	6%	8%	27%	12%

SCIENCE, MATH 1991 & ENGINEERING	1992				1993				1994			
	KU	WSU	TOTAL	%	KU	WSU	TOTAL	%	KU	WSU	TOTAL	%
Male	896	441	1,337	33%	901	438	1,339	33%	885	551	1,436	33%
Female	320	559	879	26%	379	530	909	28%	412	466	878	29%
TOTAL	1,216	1,000	2,216	30%	1,280	968	2,248	31%	1,297	1,017	2,314	31%
% Female	26%	56%	37%		28%	55%	37%		29%	46%	35%	
White	901	734	1,635	33%	877	683	1,560	33%	885	609	1,494	33%
African Amer.	13	20	33	1%	17	17	34	1%	20	21	41	1%
Hispanic	16	11	27	1%	22	22	44	1%	21	18	39	1%
Asian/Pac. Isl.	32	13	45	1%	43	21	64	1%	46	63	109	1%
Am. Ind./Alaskan	3	10	13	0%	6	4	10	0%	7	3	10	0%
Nonresident Alien	518	212	730	16%	543	270	813	18%	514	344	858	18%
Not Reporting	219	0	219	5%	309	0	309	7%	387	0	387	9%
% Minority	7%	7%	7%		9%	9%	8%		10%	15%	10%	

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

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

Appendix D

SEM Degrees Awarded

SEM Ph.D. DEGREES AWARDED

KSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	65	94	70	75	7%	15%
Engineering	13	14	13	14	8%	8%
Math	2	3	4	8	100%	300%
Subtotal	80	111	87	97	11%	21%

KU-Lawrence	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	76	89	69	73	6%	-4%
Engineering	16	18	21	19	-10%	19%
Math	1	5	1	5	400%	400%
Subtotal	93	112	91	97	7%	4%

WSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	5	5	5	9	80%	80%
Engineering	4	7	12	13	8%	225%
Math	0	1	2	2	0%	
Subtotal	9	13	19	24	26%	167%

KSU, KU, WSU COMBINED

	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	146	188	144	157	9%	8%
Engineering	33	39	46	46	0%	39%
Math	3	9	7	15	114%	400%
TOTAL	182	236	197	218	11%	20%

Ph.D. DEGREES EARNED BY WOMEN

KSU					1993-1994	1991-1994
	1991	1992	1993	1994	% Change	% Change
Science	13	20	25	14	-44%	8%
Engineering	2	2	0	0	ERR	-100%
Math	0	1	0	0	ERR	ERR
Subtotal	15	23	25	14	-44%	-7%

KU-Lawrence					1993-1994	1991-1994
	1991	1992	1993	1994	% Change	% Change
Science	23	33	30	30	0%	30%
Engineering	0	0	1	4	300%	ERR
Math	0	0	1	3	200%	ERR
Subtotal	23	33	32	37	16%	61%

WSU					1993-1994	1991-1994
	1991	1992	1993	1994	% Change	% Change
Science	1	2	2	5	150%	400%
Engineering	1	2	0	1	ERR	0%
Math	0	0	2	0	-100%	ERR
Subtotal	2	4	4	6	50%	200%

KSU, KU, WSU COMBINED

					1993-1994	1991-1994
	1991	1992	1993	1994	% Change	% Change
Science	37	55	57	49	-14%	32%
Engineering	3	4	1	5	400%	67%
Math	0	1	3	3	0%	ERR
TOTAL	40	60	61	57	-7%	43%

Ph.D. DEGREES: MINORITIES

KSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change**
Engineering	0	0	1	2	100%	ERR

KU-Lawrence	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	1	1	6	1	-83%	0%
Engineering	0	1	1	1	0%	ERR
Math	0	0	0	1	ERR	ERR
Subtotal	1	2	7	3	-57%	200%

WSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	0	0	1	2	100%	ERR
Engineering	0	0	3	4	33%	ERR
Math	0	0	0	0	ERR	ERR
Subtotal	0	0	4	6	50%	ERR

KSU, KU and WSU COMBINED

	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	1	1	7	3	-57%	200%
Engineering	0	1	5	7	40%	ERR
Math	0	0	0	1	ERR	ERR
TOTAL	1	2	12	11	-8%	1000%

* KSU ethnic data for science and math are not available from the institution's database.

** Formula: $\frac{\text{New}-\text{Old}}{\text{Old}}$ Percent change cannot be calculated when the "old" year (e.g., 1991) is zero.

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

SCIENCE	1991*				1992				1993				1994			
	KSU	KU*	WSU*	TOTAL	KSU	KU	WSU*	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	52	53	4	109	74	56	3	133	45	39	3	87	61	43	4	108
Female	13	23	1	37	20	33	2	55	25	30	2	57	14	30	5	49
TOTAL	65	76	5	146	94	89	5	188	70	69	5	144	75	73	9	157
% Female	20%	30%	20%	25%	21%	37%	40%	29%	36%	43%	40%	40%	19%	41%	56%	31%
Caucasian	*	59	5	64	*	60	4	64	*	44	3	47	*	40	4	44
African Amer.		1	0	1		1	0	1		1	1	2		0	0	0
Hispanic		0	0	0		0	0	0		1	0	1		0	0	0
Asian/Pac. Isl.		0	0	0		0	0	0		4	0	4		1	2	3
Am.Ind/Alaskan		0	0	0		0	0	0		0	0	0		0	0	0
Nonresident Alien		16	0	16		27	1	28		17	1	18		30	3	33
Not Reported		0	0	0		1		1		2	0	2		2	0	2
% Minority**		2%	0%	2%		2%	0%	2%		12%	25%	13%		2%	33%	6%

MATH	1991				1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	2	1	0	3	2	5	1	8	4	0	0	4	8	2	2	12
Female	0	0	0	0	1	0	0	1	0	1	2	3	0	3	0	3
TOTAL	2	1	0	3	3	5	1	9	4	1	2	7	8	5	2	15
% Female	0%	0%		0%	33%	0%	0%	11%	0%	100%	100%	43%	0%	60%	0%	20%
Caucasian	*	1	0	1	*	3	1	4	*	0	1	1	*	2	0	2
African Amer.		0	0	0		0	0	0		0	0	0		0	0	0
Hispanic		0	0	0		0	0	0		0	0	0		0	0	0
Asian/Pac. Isl.		0	0	0		0	0	0		0	0	0		0	0	0
Am.Ind/Alaskan		0	0	0		0	0	0		0	0	0		1	0	1
Nonresident Alien		0	0	0		2	0	2		1	1	2		2	2	4
Not Reported		0	0	0		0	0	0		0	0	0		0	0	0
% Minority		0%		0%		0%	0%	0%		0%	0%	0%		33%	0%	33%

ENGINEERING	1991				1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	11	16	3	30	12	18	5	35	13	20	12	45	14	15	12	41
Female	2	0	1	3	2	0	2	4	0	1	0	1	0	4	1	5
TOTAL	13	16	4	33	14	18	7	39	13	21	12	46	14	19	13	46
% Female	15%	0%	25%	9%	14%	0%	29%	10%	0%	5%	0%	2%	0%	21%	8%	11%
Caucasian	2	8	2	12	3	7	1	11	2	11	5	18	2	10	4	16
African Amer.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hispanic	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1
Asian/Pac. Isl.	0	0	0	0	0	1	0	1	1	0	3	4	2	1	3	6
Am.Ind/Alaskan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nonresident Alien	11	8	2	21	11	2	6	19	10	9	4	23	10	10	5	25
Not Reported	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% Minority	0%	0%	0%	0%	0%	13%	0%	8%	33%	8%	38%	22%	50%	9%	50%	30%

SCIENCE, MATH 1991 & ENGINEERING	1992				1993				1994			
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Male	65	70	7	142	88	79	9	176	62	59	15	136
Female	15	23	2	40	23	33	4	60	25	32	4	61
TOTAL	80	93	9	182	111	112	13	236	87	91	19	197
% Female	19%	25%	22%	22%	21%	29%	31%	25%	29%	35%	21%	31%
Caucasian	2	68	7	77	*	70	6	76	*	55	9	64
African Amer.	0	1	0	1	1	1	0	1	1	1	1	2
Hispanic	0	0	0	0	0	0	0	0	2	0	0	2
Asian/Pac. Isl.	0	0	0	0	1	1	0	1	4	3	7	7
Am.Ind/Alaskan	0	0	0	0	0	0	0	0	0	0	0	0
Nonresident Alien	11	24	2	37	31	7	38	27	6	33	42	10
Not Reported	0	0	0	0	1	1	0	1	2	0	2	3
% Minority	0%	1%	0%	1%	3%	0%	3%	11%	15%	5%	43%	13%

* 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 groups

SEM MASTERS DEGREES

	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
KSU						
Science	113	147	143	175	22%	55%
Engineering	64	70	67	76	13%	19%
Math	2	7	4	9	125%	350%
Subtotal	179	224	214	260	21%	45%
KU-Lawrence						
Science	129	143	119	144	21%	12%
Engineering	94	112	116	95	-18%	1%
Math	12	14	6	12	100%	0%
Subtotal	235	269	241	251	4%	7%
WSU						
Science	91	78	164	190	16%	109%
Engineering	53	48	48	78	63%	47%
Math	1	2	8	8	0%	700%
Subtotal	145	128	220	276	25%	90%
KU, KSU, AND WSU COMBINED						
Science	333	368	426	509	19%	53%
Engineering	211	230	231	249	8%	18%
Math	15	23	18	29	61%	93%
TOTAL	559	621	675	787	17%	41%

MASTERS DEGREES EARNED BY WOMEN

KSU

	1991	1992	1993	1994	1993-1994 % Change	1991-1994 % Change
Science	47	59	62	75	21%	60%
Engineering	7	6	7	9	29%	29%
Math	0	1	3	6	100%	ERR
Subtotal	54	66	72	90	25%	67%

KU-Lawrence

	1991	1992	1993	1994	1993-1994 % Change	1991-1994 % Change
Science	64	59	60	74	23%	16%
Engineering	7	17	16	12	-25%	71%
Math	6	5	2	4	100%	-33%
Subtotal	77	81	78	90	15%	17%

WSU

	1991	1992	1993	1994	1993-1994 % Change	1991-1994 % Change
Science	73	52	132	138	5%	89%
Engineering	6	3	2	4	100%	-33%
Math	0	0	1	5	400%	ERR
Subtotal	79	55	135	147	9%	86%

KU, KSU, AND WSU COMBINED

	1991	1992	1993	1994	1993-1994 % Change	1991-1994 % Change
Science	184	170	254	287	13%	56%
Engineering	20	26	25	25	0%	25%
Math	6	6	6	15	150%	150%
TOTAL	210	202	285	327	15%	56%

MASTERS DEGREES: MINORITIES

KSU*	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Engineering	2	3	1	1	0%	-50%

KU-Lawrence	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	4	3	6	7	17%	75%
Engineering	6	1	5	4	-20%	-33%
Math	0	0	0	0	ERR	ERR
Subtotal	10	4	11	11	0%	10%

WSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	1	5	14	11	-21%	1000%
Engineering	3	3	7	6	-14%	100%
Math	0	0	1	0	-100%	ERR
Subtotal	4	8	22	17	-23%	325%

KSU, KU, AND WSU

COMBINED	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	5	8	20	18	-10%	260%
Engineering	11	7	13	11	-15%	0%
Math	0	0	1	0	-100%	ERR
TOTAL	16	15	34	29	-15%	81%

*KSU ethnic data for science and math are not available from institution's database.

SEM BACHELOR DEGREES

KSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	571	429	721	788	9%	38%
Engineering	352	618	416	403	-3%	14%
Math	12	19	7	12	71%	0%
Subtotal	935	1,066	1,144	1,203	5%	29%

KU-Lawrence	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	894	1,037	1,078	1,091	1%	22%
Engineering	283	239	295	311	5%	10%
Math	33	26	26	31	19%	-6%
Subtotal	1,210	1,302	1,399	1,433	2%	18%

WSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	421	456	333	375	13%	-11%
Engineering	143	285	147	182	24%	27%
Math	14	14	16	12	-25%	-14%
Subtotal	578	755	496	569	15%	-2%

KSU, KU, AND WSU

COMBINED	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	1,886	1,922	2,132	2,254	6%	20%
Engineering	778	1,142	858	896	4%	15%
Math	59	59	49	55	12%	-7%
TOTAL	2,723	3,123	3,039	3,205	5%	18%

BACHELOR DEGREES EARNED BY WOMEN

	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
KSU						
Science	223	248	338	343	1%	54%
Engineering	44	56	55	53	-4%	20%
Math	4	7	6	5	-17%	25%
Subtotal	271	311	399	401	1%	48%
KU-Lawrence						
Science	459	516	555	556	0%	21%
Engineering	34	37	40	42	5%	24%
Math	12	10	9	9	0%	-25%
Subtotal	505	563	604	607	0%	20%
WSU						
Science	312	325	206	226	10%	-28%
Engineering	15	30	17	19	12%	27%
Math	8	4	9	4	-56%	-50%
Subtotal	335	359	232	249	7%	-26%
KSU, KU, AND WSU COMBINED						
Science	994	1089	1099	1125	2%	13%
Engineering	93	123	112	114	2%	23%
Math	24	21	24	18	-25%	-25%
TOTAL	1,111	1,233	1,235	1,257	2%	13%

BACHELOR DEGREES: MINORITIES

KSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Engineering*	19	21	21	24	14%	26%

KU-Lawrence	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	49	73	57	92	61%	88%
Engineering	21	21	18	20	11%	-5%
Math	2	1	2	0	-100%	-100%
Subtotal	72	95	77	112	45%	56%

WSU	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	36	30	36	55	53%	53%
Engineering	20	24	17	24	41%	20%
Math	0	2	3	3	0%	ERR
Subtotal	56	56	56	82	46%	46%

KSU, KU AND WSU

COMBINED	1991	1992	1993	1994	1993-1994	1991-1994
					% Change	% Change
Science	85	103	93	147	58%	73%
Engineering	60	66	56	68	21%	13%
Math	2	3	5	3	-40%	50%
TOTAL	147	172	154	218	42%	48%

* KSU ethnic data for science and math are not available from institution's database.

SEM DEGREES AWARDED

TOTAL POPULATION					1993-1994	1991-1994
	1991	1992	1993	1994	% Change	% Change
Ph.D.	182	236	197	218	11%	20%
Masters	559	621	675	787	17%	41%
Bachelors	2,723	3,123	3,039	3,205	5%	18%
TOTAL	3,464	3,980	3,911	4,210	8%	22%

WOMEN

Ph.D.	40	60	61	57	-7%	43%
Masters	210	202	285	327	15%	56%
Bachelors	1,111	1,233	1,235	1,257	2%	13%
Subtotal	1,361	1,495	1,581	1,641	4%	21%
% of Total	39%	38%	40%	39%		

MINORITIES *

Ph.D.	1	2	12	11	-8%	1000%
Masters	16	15	34	29	-15%	81%
Bachelors	147	172	154	218	42%	48%
Subtotal	164	189	200	258	29%	57%
% of Total	5%	5%	5%	6%		

* KSU ethnic data for science and math are not available from the institution's database.

Appendix E

NSF Grant Activity

NSF GRANT ACTIVITY: PERCENT CHANGE

Funded and Not Funded:

	1994 *	1993	1992	1991	'93 to 94 % Change	'91 to 94 % Change
Science	\$35,015,844	\$23,528,711	\$35,931,420	\$24,646,160	49%	42%
Math	\$2,399,922	\$1,241,183	\$5,954,566	\$3,162,157	93%	-24%
Engineering	\$13,758,091	\$10,046,765	\$7,258,708	\$5,044,796	37%	173%
TOTAL	\$51,173,857	\$34,816,659	\$49,144,694	\$32,853,113	47%	56%
w/oEPSCoR	\$49,693,857	\$33,336,659	\$47,664,694		49%	51%

Funded:

	1994 *	1993	1992	1991	'93 to 94 % Change	'91 to 94 % Change
Science	\$9,595,508	\$5,493,074	\$7,512,065	\$5,281,202	75%	82%
Math	\$541,216	\$391,164	\$977,796	\$258,118	38%	110%
Engineer	\$1,152,649	\$2,028,060	\$689,266	\$470,403	-43%	145%
TOTAL	\$11,289,373	\$7,912,298	\$9,179,127	\$6,009,723	43%	88%
w/oEPSCoR	\$9,809,373	\$6,432,298	\$7,699,127		53%	63%

* Includes grants still pending.

NSF GRANTS AWARDED: PERCENT CHANGE *

					1991-1994
	1991	1992	1993	1994	% Change
KSU					
Science	\$2,907,520	\$3,370,874	\$1,889,133	\$6,184,489	113%
Engineering	\$103,901	\$425,544	\$167,096	\$597,129	475%
Math	\$73,445	\$135,134	\$40,668	\$219,972	200%
TOTAL	\$3,084,866	\$3,931,552	\$2,096,897	\$7,001,590	127%
KU					
Science	\$2,314,026	\$4,042,787	\$3,224,209	\$2,850,728	23%
Engineering	\$366,502	\$24,510	\$1,750,511	\$545,015	49%
Math	\$117,919	\$699,015	\$177,384	\$169,907	44%
TOTAL	\$2,798,447	\$4,766,312	\$5,152,104	\$3,565,650	27%
WSU					
Science	\$59,656	\$98,404	\$379,732	\$560,291	839%
Engineering	\$0	\$239,212	\$110,453	\$10,505	
Math	\$66,754	\$143,647	\$173,112	\$151,337	127%
TOTAL	\$126,410	\$481,263	\$663,297	\$722,133	471%
State Total:					
Science	\$5,281,202	\$7,512,065	\$5,493,074	\$9,595,508	82%
Engineering	\$470,403	\$689,266	\$2,028,060	\$1,152,649	145%
Math	\$258,118	\$977,796	\$391,164	\$541,216	110%
TOTAL	\$6,009,723	\$9,179,127	\$7,912,298	\$11,289,373	88%

* Some 1994 grants are still pending so dollars awarded could increase.

NUMBER AND DOLLARS FOR NSF GRANTS: FY 1994

NUMBER:					AMOUNT			
SCIENCE:	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	35	39	8	82	\$6,184,489	\$2,850,728	\$560,291.00	\$9,595,508
Not Funded	23	49	14	86	\$6,147,045	\$10,288,089	\$2,173,641	\$18,608,775
Pending	16	5	0	21	\$5,332,616	\$1,478,945	\$0	\$6,811,561
Total *	74	93	22	189	\$17,664,150	\$14,617,762	\$2,733,932	\$35,015,844
% Awarded	47%	42%	36%	43%	35%	20%	20%	27%
Avg. \$ Awarded					\$176,700	\$73,096	\$70,036	\$117,018
MATH								
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	4	6	2	12	\$219,972	\$169,907	\$151,337	\$541,216
Not Funded	6	8	5	19	\$494,532	\$463,767	\$578,154	\$1,536,453
Pending	3	1	0	4	\$237,049	\$85,204	\$0	\$322,253
Total *	13	15	7	35	\$951,553	\$718,878	\$729,491	\$2,399,922
% Awarded	31%	40%	29%	34%	23%	24%	21%	23%
Avg. \$ Awarded					\$54,993	\$28,318	\$75,669	\$45,101
ENGINEERING								
	KSU	KU**	WSU	TOTAL	KSU	KU *	WSU	TOTAL
Awarded	11	7	1	19	\$597,129	\$545,015	\$10,505	\$1,152,649
Not Funded	23	18	19	60	\$3,833,814	\$6,186,435	\$2,435,770	\$12,456,019
Pending	3	0	0	3	\$149,423	\$0	\$0	\$149,423
Total*	37	25	20	82	\$4,580,366	\$6,731,450	\$2,446,275	\$13,758,091
% Awarded	30%	28%	5%	23%	13%	8%	0%	8%
Avg. \$ Awarded					\$54,284	\$77,859	\$10,505	\$60,666
OTHER								
	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	5	2	0	7	\$1,009,102	\$93,011	\$0	\$1,102,113
Not Funded	0	5	0	5	\$0	\$1,080,249	\$0	\$1,080,249
Pending	3	0	0	3	\$6,503,003	\$0	\$0	\$6,503,003
Total*	8	7	0	15	\$7,512,105	\$1,173,260	\$0	\$8,685,365
% Awarded	63%	29%	ERR	47%	13%	8%	ERR	13%
Avg. \$ Awarded					\$201,820	\$46,506	ERR	\$157,445
SME TOTAL								
	KSU	KU	WSU	TOTAL	KSU	KU *	WSU	TOTAL
Awarded	50	52	11	113	\$7,001,590	\$3,565,650	\$722,133	\$11,289,373
Not Funded	52	75	38	165	\$10,475,391	\$16,938,291	\$5,187,565	\$32,601,247
Pending	22	6	0	28	\$5,719,088	\$1,564,149	\$0	\$7,283,237
Total*	124	133	49	306	\$23,196,069	\$22,068,090	\$5,909,698	\$51,173,857
% Awarded	40%	39%	22%	37%	30%	16%	12%	22%
Avg. \$ Awarded					\$140,032	\$68,570	\$65,648	\$99,906
SMEO TOTAL								
	KSU	KU	WSU	NUMBER	KSU	KU *	WSU	AMOUNT
Awarded	55	54	11	120	\$8,010,692	\$3,658,661	\$722,133	\$12,391,486
Not Funded	52	80	38	170	\$10,475,391	\$18,018,540	\$5,187,565	\$33,681,496
Pending	25	6	0	31	\$12,222,091	\$1,564,149	\$0	\$13,786,240
Total	132	140	49	321	\$30,708,174	\$23,241,350	\$5,909,698	\$59,859,222
% Awarded	42%	39%	22%	37%	26%	16%	12%	21%
Avg. \$ Awarded					\$145,649	\$67,753	\$65,648	\$103,262

**Includes NSF EPSCoR. Total may not equal total \$ submitted since \$ awarded may not equal \$ submitted.

**KU data do not include Medical Center.

NUMBER AND DOLLARS FOR NSF GRANTS: FY 1993

NUMBER:					AMOUNT			
SCIENCE:	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	18	30	7	55	\$1,889,133	\$3,224,209	\$379,732	\$5,493,074
Not Funded	42	47	8	97	\$7,252,291	\$10,158,607	\$624,739	\$18,035,637
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	60	77	15	152	\$9,141,424	\$13,382,816	\$1,004,471	\$23,528,711
% Awarded	30%	39%	47%	36%	21%	24%	38%	23%
Avg. \$ Awarded					\$104,952	\$107,474	\$54,247	\$99,874
MATH	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	2	5	3	10	\$40,668	\$177,384	\$173,112	\$391,164
Not Funded	5	5	1	11	\$530,759	\$303,537	\$15,723	\$850,019
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	7	10	4	21	\$571,427	\$480,921	\$188,835	\$1,241,183
% Awarded	29%	50%	75%	48%	7%	37%	92%	32%
Avg. \$ Awarded					\$20,334	\$35,477	\$57,704	\$39,116
ENGINEERING	KSU	KU*	WSU	TOTAL	KSU	KU *	WSU	TOTAL
Awarded	3	6	2	11	\$167,096	\$1,750,511	\$110,453	\$2,028,060
Not Funded	30	14	13	57	\$4,797,565	\$2,232,572	\$988,568	\$8,018,705
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	33	20	15	68	\$4,964,661	\$3,983,083	\$1,099,021	\$10,046,765
% Awarded	9%	30%	13%	16%	3%	44%	10%	20%
Avg. \$ Awarded					\$55,699	\$291,752	\$55,227	\$184,369
OTHER	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	5	1	2	8	\$263,716	\$378,437	\$117,643	\$759,796
Not Funded	13	5	0	18	\$1,886,435	\$1,434,139	\$0	\$3,320,574
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	18	6	2	26	\$2,150,151	\$1,812,576	\$117,643	\$4,080,370
% Awarded	28%	17%	100%	31%	12%	21%	100%	19%
Avg. \$ Awarded					\$52,743	\$378,437	\$58,822	\$94,975
SME TOTAL	KSU	KU	WSU	TOTAL	KSU	KU *	WSU	TOTAL
Awarded	23	41	12	76	\$2,096,897	\$5,152,104	\$663,297	\$7,912,298
Not Funded	77	66	22	165	\$12,580,615	\$12,694,716	\$1,629,030	\$26,904,361
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	100	107	34	241	\$14,677,512	\$17,846,820	\$2,292,327	\$34,816,659
% Awarded	23%	38%	35%	32%	14%	29%	29%	23%
Avg. \$ Awarded					\$91,169	\$125,661	\$55,275	\$104,109
SMEO TOTAL	KSU	KU	WSU	NUMBER	KSU	KU *	WSU	AMOUNT
Awarded	28	42	14	84	\$2,360,613	\$5,530,541	\$780,940	\$8,672,094
Not Funded	90	71	22	183	\$14,467,050	\$14,128,855	\$1,629,030	\$30,224,935
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	118	113	36	267	\$16,827,663	\$19,659,396	\$2,409,970	\$38,897,029
% Awarded	24%	37%	39%	31%	14%	28%	32%	22%
Avg. \$ Awarded					\$84,308	\$131,680	\$55,781	\$103,239

*Includes NSF EPSCoR. Total may not equal total \$ submitted since \$ awarded may not equal \$ submitted.

KU data do not include Med. Center.

NUMBER AND DOLLARS FOR NSF GRANTS: FY 1992 *

NUMBER:					AMOUNT			
SCIENCE:	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	22	30	3	55	\$3,370,874	\$4,042,787	\$98,404	\$7,512,065
Not Funded	39	65	14	118	\$7,360,841	\$17,940,115	\$3,118,399	\$28,419,355
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	61	95	17	173	\$10,731,715	\$21,982,902	\$3,216,803	\$35,931,420
% Awarded	36%	32%	18%	32%	31%	18%	3%	21%
Avg. \$ Awarded					\$153,222	\$134,760	\$32,801	\$136,583
MATH	KSU**	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	5	6	2	13	\$135,134	\$699,015	\$143,647	\$977,796
Not Funded	14	8	11	33	\$3,358,040	\$744,035	\$874,695	\$4,976,770
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	19	14	13	46	\$3,493,174	\$1,443,050	\$1,018,342	\$5,954,566
% Awarded	26%	43%	15%	28%	4%	48%	14%	16%
Avg. \$ Awarded	** Includes statistics				\$27,027	\$116,503	\$71,824	\$75,215
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	11	4	41	\$4,538,113	\$1,861,184	\$170,145	\$6,569,442
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	32	13	9	54	\$4,963,657	\$1,885,694	\$409,357	\$7,258,708
% Awarded	19%	15%	56%	24%	9%	1%	58%	9%
Avg. \$ Awarded					\$70,924	\$12,255	\$47,842	\$53,020
OTHER	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	6	2	0	8	\$1,329,891	\$28,975	\$0	\$1,358,866
Not Funded	5	3	1	9	\$3,220,447	\$293,335	\$634,098	\$4,147,880
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	11	5	1	17	\$4,550,338	\$322,310	\$634,098	\$5,506,746
% Awarded	55%	40%	0%	47%	29%	9%	0%	25%
Avg. \$ Awarded					\$221,649	\$14,488		\$169,858
SME TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	33	38	10	81	\$3,931,552	\$4,766,312	\$481,263	\$9,179,127
Not Funded	79	84	29	192	\$15,256,994	\$20,545,334	\$4,163,239	\$39,965,567
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	112	122	39	273	\$19,188,546	\$25,311,646	\$4,644,502	\$49,144,694
% Awarded	29%	31%	26%	30%	20%	19%	10%	19%
Avg. \$ Awarded					\$119,138	\$125,429	\$48,126	\$113,323
SMEO TOTAL	KSU	KU	WSU	NUMBER	KSU	KU *	WSU	AMOUNT
Awarded	39	40	10	89	\$5,261,443	\$4,795,287	\$481,263	\$10,537,993
Not Funded	84	87	30	201	\$18,477,441	\$20,838,669	\$4,797,337	\$44,113,447
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	123	127	40	290	\$23,738,884	\$25,633,956	\$5,278,600	\$54,651,440
% Awarded	32%	31%	25%	31%	22%	19%	9%	19%
Avg. \$ Awarded					\$134,909	\$119,882	\$48,126	\$118,404

* Includes NSF EPSCoR. Totals reported here are not equal to Total Submitted since \$ awarded may not equal \$ submitted. KU data do not include Med. Center

NUMBER AND DOLLARS FOR NSF GRANTS: FY 1991

NUMBER:					AMOUNT			
SCIENCE:	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	23	29	1	53	\$2,907,520	\$2,314,026	\$59,656	\$5,281,202
Not Funded	32	54	10	96	\$5,323,489	\$9,608,102	\$4,433,367	\$19,364,958
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	55	83	11	53	\$8,231,009	\$11,922,128	\$4,493,023	\$24,646,160
% Awarded	42%	35%	9%	100%	35%	19%	1%	21%
Avg. \$ Awarded					\$126,414	\$79,794	\$59,656	\$99,645
MATH	KSU*	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	3	4	2	9	\$73,445	\$117,919	\$66,754	\$258,118
Not Funded	13	10	3	26	\$1,708,067	\$1,106,845	\$89,127	\$2,904,039
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	16	14	5	35	\$1,781,512	\$1,224,764	\$155,881	\$3,162,157
% Awarded	19%	29%	40%	26%	4%	10%	43%	8%
Avg. \$ Awarded	* Includes statistics				\$24,482	\$29,480	\$33,377	\$28,680
ENGINEERING	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	4	6	0	10	\$103,901	\$366,502	\$0	\$470,403
Not Funded	20	16	7	43	\$1,733,744	\$1,717,203	\$1,123,446	\$4,574,393
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	24	22	7	53	\$1,837,645	\$2,083,705	\$1,123,446	\$5,044,796
% Awarded	17%	27%	0%	19%	6%	18%	0%	9%
Avg. \$ Awarded					\$25,975	\$61,084	\$0	\$47,040
OTHER	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	4	2	1	7	\$333,238	\$605,360	\$92,009	\$1,030,607
Not Funded	8	5	0	13	\$1,896,949	\$570,077	\$0	\$2,467,026
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	12	7	1	20	\$2,230,187	\$1,175,437	\$92,009	\$3,497,633
% Awarded	33%	29%	100%	35%	15%	52%	100%	29%
Avg. \$ Awarded					\$83,310	\$302,680	\$92,009	\$147,230
SME TOTAL	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	30	39	3	72	\$3,084,866	\$2,798,447	\$126,410	\$6,009,723
Not Funded	65	80	20	165	\$8,765,300	\$12,432,150	\$5,645,940	\$26,843,390
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	95	119	23	237	\$11,850,166	\$15,230,597	\$5,772,350	\$32,853,113
% Awarded	32%	33%	13%	30%	26%	18%	2%	18%
Avg. \$ Awarded					\$102,829	\$71,755	\$42,137	\$83,468
SMEO TOTAL	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	34	41	4	79	\$3,418,104	\$3,403,807	\$218,419	\$7,040,330
Not Funded	73	85	20	178	\$10,662,249	\$13,002,227	\$5,645,940	\$29,310,416
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total	107	126	24	257	\$14,080,353	\$16,406,034	\$5,864,359	\$36,350,746
% Awarded	32%	33%	17%	31%	24%	21%	4%	19%
Avg. \$ Awarded					\$100,532	\$83,020	\$54,605	\$89,118

*Total may not equal total \$ submitted since \$ awarded may be less than \$ submitted.

KU data do not include Med. Center.

Appendix F
Total Grant Activity

GRANT ACTIVITY ACROSS ALL AGENCIES: PERCENT CHANGE

Funded and Not Funded:

	Dollars:				'93 to '94		'91 to '94		Number:		'93 to '94		'91 to '94	
	1994 *	1993	1992	1991	% Change	% Change	% Change	% Change	1994	1993	1992	1991	% Change	% Change
Science	\$164,343,639	\$126,321,749	\$144,557,533	\$115,545,909	30%	42%			1324	1325	1239	996	-0%	33%
Math	\$3,992,524	\$2,493,743	\$3,740,913	\$3,549,641	60%	12%			53	33	57	38	61%	39%
Engineering	\$73,641,615	\$41,919,172	\$35,001,028	\$16,166,830	76%	356%			449	360	359	255	25%	76%
TOTAL	\$241,977,778	\$170,734,664	\$183,299,474	\$135,262,380	42%	79%			1826	1718	1655	1289	6%	42%

Funded:

	Dollars:				'93 to '94		'91 to '94		Number		'93 to '94		'91 to '94	
	1994 *	1993	1992	1991	% Change	% Change	% Change	% Change	1994 *	1993	1992	1991	% Change	% Change
Science	\$52,090,180	\$49,530,343	\$54,160,045	\$44,777,307	-10%	16%			751	748	668	535	0%	40%
Math	\$601,826	\$448,657	\$1,268,470	\$407,662	-9%	48%			15	13	25	11	15%	36%
Engineer	\$16,611,125	\$13,818,151	\$12,077,247	\$6,200,573	-55%	168%			191	203	195	151	-6%	26%
TOTAL	\$69,303,131	\$63,797,151	\$67,505,762	\$51,385,542	9%	35%			957	964	888	697	-1%	37%

* Includes grants still pending.

TOTAL GRANTS AWARDED: PERCENT CHANGE *

					1991-1994
KSU	1991	1992	1993	1994	% Change
Science	\$17,163,755	\$23,830,079	\$19,780,635	\$22,602,143	32%
Engineering	\$1,496,124	\$4,398,110	\$3,387,740	\$8,305,309	455%
Math	\$73,445	\$248,415	\$18,168	\$219,972	200%
TOTAL	\$18,733,324	\$28,476,604	\$23,186,543	\$31,127,424	66%
KU	1991	1992	1993	1994	% Change
Science	\$26,635,884	\$29,258,075	\$28,581,386	\$27,093,384	2%
Engineering	\$3,507,199	\$5,547,943	\$8,739,476	\$7,738,077	121%
Math	\$117,919	\$745,197	\$257,377	\$230,517	95%
TOTAL	\$30,261,002	\$35,551,215	\$37,578,239	\$35,061,978	16%
WSU	1991	1992	1993	1994	% Change
Science	\$977,668	\$1,071,891	\$1,168,322	\$2,394,653	145%
Engineering	\$1,197,250	\$2,131,194	\$1,690,935	\$567,739	-53%
Math	\$216,298	\$274,858	\$173,112	\$151,337	-30%
TOTAL	\$2,391,216	\$3,477,943	\$3,032,369	\$3,113,729	30%
State Total:	1991	1992	1993	1994	% Change
Science	\$44,777,307	\$54,160,045	\$49,530,343	\$52,090,180	16%
Engineering	\$6,200,573	\$12,077,247	\$13,818,151	\$16,611,125	168%
Math	\$407,662	\$1,268,470	\$448,657	\$601,826	48%
TOTAL	\$51,385,542	\$67,505,762	\$63,797,151	\$69,303,131	35%

* Some 1994 grants are still pending so dollars awarded could increase.

TOTAL GRANTS: FY 1994

	NUMBER			TOTAL	AMOUNT			TOTAL
SCIENCE:	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	357	353	41	751	\$22,602,143	\$27,093,384	\$2,394,653	\$52,090,180
Rejected	99	131	42	272	\$33,528,499	\$21,874,659	\$5,861,606	\$61,264,764
Pending	166	135	0	301	\$35,495,521	\$15,493,174	\$0	\$50,988,695
Total *	622	619	83	1,324	\$91,626,163	\$64,461,217	\$8,256,259	\$164,343,639
% Awarded	57.4%	57.0%	49.4%	56.7%	24.7%	42.0%	29.0%	31.7%

	NUMBER			TOTAL	AMOUNT			TOTAL
MATH:	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	4	9	2	15	\$219,972	\$230,517	\$151,337	\$601,826
Rejected	6	12	7	25	\$622,222	\$608,799	\$794,602	\$2,025,623
Pending	9	4	0	13	\$991,535	\$373,540	\$0	\$1,365,075
Total *	19	25	9	53	\$1,833,729	\$1,212,856	\$945,939	\$3,992,524
% Awarded	21.1%	36.0%	22.2%	28.3%	12.0%	19.0%	16.0%	15.1%

	NUMBER			TOTAL	AMOUNT			TOTAL
ENGINEERING:	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	88	87	16	191	\$8,305,309	\$7,738,077	\$567,739	\$16,611,125
Rejected	41	91	63	195	\$6,227,989	\$21,083,300	\$11,710,616	\$39,021,905
Pending	58	5	0	63	\$17,794,760	\$213,825	\$0	\$18,008,585
Total *	187	183	79	449	\$32,328,058	\$29,035,202	\$12,278,355	\$73,641,615
% Awarded	47.1%	47.5%	20.3%	42.5%	25.7%	26.7%	4.6%	22.6%

	NUMBER			TOTAL	AMOUNT			TOTAL
SME TOTAL	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	449	449	59	957	\$31,127,424	\$35,061,978	\$3,113,729	\$69,303,131
Rejected	146	234	112	492	\$40,378,710	\$43,566,758	\$18,366,824	\$102,312,292
Pending	233	144	0	377	\$54,281,816	\$16,080,539	\$0	\$70,362,355
Total *	828	827	171	1,826	\$125,787,950	\$94,709,275	\$21,480,553	\$241,977,778
% Awarded	54.2%	54.3%	34.5%	52.4%	24.7%	37.0%	14.5%	28.6%

* Total may not equal total \$ submitted since \$ awarded may be less than \$ submitted.

KU data do not include Medical Center.

TOTAL GRANTS: FY 1993

SCIENCE:	NUMBER			TOTAL NUMBER	AMOUNT			TOTAL AMOUNT
	KSU	KU	WSU		KSU	KU	WSU	
Awarded	346	367	35	748	\$19,780,635	\$28,581,386	\$1,168,322	\$49,530,343
Rejected	288	247	42	577	\$40,412,252	\$32,423,372	\$3,955,782	\$76,791,406
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	634	614	77	1,325	\$60,192,887	\$61,004,758	\$5,124,104	\$126,321,749
% Awarded	54.6%	59.8%	45.5%	56.5%	32.9%	46.9%	22.8%	39.2%

MATH	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	1	9	3	13	\$18,168	\$257,377	\$173,112	\$448,657
Rejected	12	6	2	20	\$1,534,427	\$361,418	\$149,241	\$2,045,086
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	13	15	5	33	\$1,552,595	\$618,795	\$322,353	\$2,493,743
% Awarded	7.7%	60.0%	60.0%	39.4%	1.2%	41.6%	53.7%	18.0%

ENGINEERING	KSU	KU	WSU	TOTAL	KSU	KU	WSU	TOTAL
Awarded	71	102	30	203	\$3,387,740	\$8,739,476	\$1,690,935	\$13,818,151
Rejected	66	58	33	157	\$13,897,304	\$8,344,032	\$5,859,685	\$28,101,021
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	137	160	63	360	\$17,285,044	\$17,083,508	\$7,550,620	\$41,919,172
% Awarded	51.8%	63.8%	47.6%	56.4%	19.6%	51.2%	22.4%	33.0%

SME TOTAL	TOTAL			TOTAL NUMBER	TOTAL			TOTAL AMOUNT
	KSU	KU	WSU		KSU	KU	WSU	
Awarded	418	478	68	964	\$23,186,543	\$37,578,239	\$3,032,369	\$63,797,151
Rejected	366	311	77	754	\$55,843,983	\$41,128,822	\$9,964,708	\$106,937,513
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	784	789	145	1,718	\$79,030,526	\$78,707,061	\$12,997,077	\$170,734,664
% Awarded	53.3%	60.6%	46.9%	56.1%	29.3%	47.7%	23.3%	37.4%

* Total may not equal total \$ submitted since \$ awarded may be less than \$ submitted.

KU data do not include Medical Center.

TOTAL GRANTS: FY 1992

	NUMBER			TOTAL	AMOUNT			TOTAL
SCIENCE:	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	313	326	29	668	\$23,830,079	\$29,258,075	\$1,071,891	\$54,160,045
Rejected	261	271	39	571	\$40,383,856	\$43,707,888	\$6,305,744	\$90,397,488
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	574	597	68	1,239	\$64,213,935	\$72,965,963	\$7,377,635	\$144,557,533
% Awarded	54.5%	54.6%	42.6%	53.9%	37.1%	40.1%	14.5%	37.5%

	NUMBER			TOTAL	AMOUNT			TOTAL
MATH:	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	10	9	6	25	\$248,415	\$745,197	\$274,858	\$1,268,470
Rejected	17	9	6	32	\$1,415,917	\$762,209	\$294,317	\$2,472,443
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	27	18	12	57	\$1,664,332	\$1,507,406	\$569,175	\$3,740,913
% Awarded	37.0%	50.0%	50.0%	43.9%	14.9%	49.4%	48.3%	33.9%

	NUMBER			TOTAL	AMOUNT			TOTAL
ENGINEERING:	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	75	91	29	195	\$4,398,110	\$5,547,943	\$2,131,194	\$12,077,247
Rejected	89	44	31	164	\$14,033,840	\$4,823,410	\$4,066,531	\$22,923,781
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	164	135	60	359	\$18,431,950	\$10,371,353	\$6,197,725	\$35,001,028
% Awarded	45.7%	67.4%	48.3%	54.3%	23.9%	53.5%	34.4%	34.5%

	NUMBER			TOTAL	AMOUNT			TOTAL
SME TOTAL	KSU	KU	WSU	NUMBER	KSU	KU	WSU	AMOUNT
Awarded	398	426	64	888	\$28,476,604	\$35,551,215	\$3,477,943	\$67,505,762
Rejected	367	324	76	767	\$55,833,613	\$49,293,507	\$10,666,592	\$115,793,712
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	765	750	140	1,655	\$84,310,217	\$84,844,722	\$14,144,535	\$183,299,474
% Awarded	52.0%	56.8%	45.7%	53.7%	33.8%	41.9%	24.6%	36.8%

* Total may not equal total \$ submitted since \$ awarded may be less than \$ submitted.

KU data do not include Medical Center.

TOTAL GRANTS: FY 1991

SCIENCE:	NUMBER			TOTAL NUMBER	AMOUNT			TOTAL AMOUNT
	KSU	KU	WSU		KSU	KU	WSU	
Awarded	208	299	28	535	\$17,163,755	\$26,635,884	\$977,668	\$44,777,307
Rejected	204	223	34	461	\$30,787,172	\$29,754,705	\$10,226,725	\$70,768,602
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	412	522	62	996	\$47,950,927	\$56,390,589	\$11,204,393	\$115,545,909
% Awarded	50.5%	57.3%	45.2%	53.7%	35.8%	47.2%	8.7%	38.8%

MATH:	NUMBER			TOTAL NUMBER	AMOUNT			TOTAL AMOUNT
	KSU	KU	WSU		KSU	KU	WSU	
Awarded	3	4	4	11	\$73,445	\$117,919	\$216,298	\$407,662
Rejected	9	12	6	27	\$1,446,482	\$1,287,543	\$407,954	\$3,141,979
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	12	16	10	38	\$1,519,927	\$1,405,462	\$624,252	\$3,549,641
% Awarded	25.0%	25.0%	40.0%	28.9%	4.8%	8.4%	34.6%	11.5%

ENGINEERING:	NUMBER			TOTAL NUMBER	AMOUNT			TOTAL AMOUNT
	KSU	KU	WSU		KSU	KU	WSU	
Awarded	35	85	31	151	\$1,496,124	\$3,507,199	\$1,197,250	\$6,200,573
Rejected	34	54	16	104	\$3,807,567	\$3,945,256	\$2,213,434	\$9,966,257
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	69	139	47	255	\$5,303,691	\$7,452,455	\$3,410,684	\$16,166,830
% Awarded	50.7%	61.2%	66.0%	59.2%	28.2%	47.1%	35.1%	38.4%

SME TOTAL	NUMBER			TOTAL NUMBER	AMOUNT			TOTAL AMOUNT
	KSU	KU	WSU		KSU	KU	WSU	
Awarded	246	388	63	697	\$18,733,324	\$30,261,002	\$2,391,216	\$51,385,542
Rejected	247	289	56	592	\$36,041,221	\$34,987,504	\$12,848,113	\$83,876,838
Pending	0	0	0	0	\$0	\$0	\$0	\$0
Total *	493	677	119	1,289	\$54,774,545	\$65,248,506	\$15,239,329	\$135,262,380
% Awarded	49.9%	57.3%	52.9%	54.1%	34.2%	46.4%	15.7%	38.0%

* Total may not equal total \$ submitted since \$ awarded may be less than \$ submitted.

KU data do not include Medical Center.

Appendix G

EPSCoR Faculty Grant Activity

EPSCoR FACULTY GRANT ACTIVITY: NEW GRANTS FROM ALL FUNDING SOURCES

Includes Only Those Grants Where Faculty Served as Principal Investigator; Does Not Include NSF EPSCoR

KSU Faculty	FY 1992:			FY 1993:			FY 1994:			Dollars Awarded
	Number Submitted	Number Awarded	Dollars Awarded	Number Submitted	Number Awarded	Dollars Awarded	Number Submitted	Number Awarded		
Banks, M.	2	1	\$19,849	3	2	\$30,617	6	1	\$84,626	
Borovik, A.				2	1	\$24,450	0	0	\$0	
Chakrabarti, A.	2	0	\$0	4	2	\$210,000	0	0	\$0	
Consigli, R.	2	2	\$225,542	3	2	\$221,324	2	1	\$60,640	
Dawes, W.	1	1	\$800	0	0	\$0	0	0	\$0	
Dodds, W.	3	0	\$0	3	0	\$0	4	1	\$49,935	
Edgar, J.	3	0	\$0	4	0	\$0	4	2	\$170,000	
Erickson, L.	4	2	\$506,000	1	0	\$0	5	3	\$1,003,114	
Glasgow, L.	1	0	\$0	4	0	\$0	1	0	\$0	
Jiang, H.	4	0	\$0	1	0	\$0	1	0	\$0	
Kiefer, S.							2	1	\$13,008	
Klabunde, K.	3	3	\$110,462	5	4	\$184,674	2	2	\$193,000	
Koelliker, J.	2	2	\$59,995	2	2	\$62,100	2	2	\$89,999	
Law, B.	0	0	\$0	1	1	\$210,000	0	0	\$0	
Lin, J.	0	0	\$0	1	0	\$0	4	1	\$55,000	
Lucas, M.	2	2	\$30,714	1	1	\$22,131	3	2	\$51,898	
Maatta, E.	1	1	\$118,260	1	1	\$104,000	1	1	\$100,880	
Meloan, C.	5	1	\$73,411	2	0	\$150,000	1	1	\$180,767	
O'Shea, M.	1	0	\$0	0	0	\$0	0	0	\$0	
Rahman, T.	1	1	\$135,000	1	0	\$0	2	2	\$695,656	
Rice, C.	6	2	\$138,880	3	0	\$0	1	1	\$150,042	
Rintoul, D.	3	1	\$12,528	2	1	\$23,320	1	1	\$100,000	
Riordan, C.	0	0	\$0	3	0	\$0	4	1	\$62,500	
Roche, T.							4	2	\$447,821	
Rys, A.	0	0	\$0				0	0	\$0	
Schlup, J.	2	2	\$209,709	0	0	\$0	2	1	\$10,000	
Schwab, A.P.	6	2	\$17,080	2	0	\$0	1	1	\$98,443	
Seib, P.	5	1	\$17,000	6	4	\$48,500	4	2	\$29,750	
Sherwood, P.	5	5	\$309,490	2	1	\$50,000	5	2	\$106,777	
Sorensen, C.	4	1	\$89,200	2	1	\$5,000	6	3	\$272,596	
Wetzel, D.	3	0	\$0	1	0	\$0	0	0	\$0	
Wysin, G.	0	0	\$0	1	0	\$0	4	2	\$125,300	
Subtotal	71	30	\$2,073,920	61	23	\$1,346,116	72	36	\$4,151,752	
Percent Awarded		42%			38%			50%		

Distribution by Total Dollars Awarded to EPSCoR Faculty

	Number of EPSCoR Faculty Within Each Funding Range:								
	KSU:		KU:		WSU:		State:		% Change
Dollars Awarded:	1992	1994	1992	1994	1992	1994	1992	1994	1992-1994
\$1-\$49,999	6	4	6	8	3	4	15	16	7%
\$50,000-\$99,999	3	7	3	10	0	3	6	20	233%
\$100,000-\$999,999	8	11	11	10	0	2	19	23	21%
\$1,000,000 +	0	1	0	0	0	0	0	1	
Total:	17	23	20	28	3	9	40	60	
N=	32	32	39	39	14	14	85	85	
% of Total	53%	72%	51%	72%	21%	64%	47%	71%	

KU	FY 1992:			FY 1993:			FY 1994:			
Faculty	Number Submitted	Number Awarded	Dollars Awarded	Number Submitted	Number Awarded	Dollars Awarded	Number Submitted	Number Awarded	Dollars Awarded	
Adams, R.	4	1	\$82,923	0	0	\$0	1	1	\$46,000	
Arritt, R.	2	0	\$0	1	1	\$2,481	0	0	\$0	
Aube, J.	8	4	\$185,655	3	3	\$65,000	4	2	\$179,921	
Benson, D.	0	0	\$0	2	0	\$0	3	0	\$0	
Bigelow, D.	6	4	\$254,981	9	7	\$398,186	5	3	\$83,305	
Bowman, R.	3	2	\$18,000	3	0	0	3	1	\$50,000	
Bowman-James, K.	0	0	\$0	4	1	\$23,320	3	1	\$3,000	
Braaten, D.	2	0	\$0	0	0	\$0	3	1	\$99,017	
Busch, D.	3	3	\$285,000	3	3	\$157,000	6	5	\$437,000	
Byers, R.	0	0	\$0	0	0	\$0	1	1	\$37,475	
Chu, S.	4	2	\$81,000	0	0	\$0	2	2	\$107,240	
Cravens, T.	12	6	\$184,781	5	4	\$180,070	3	3	\$144,720	
Dorfmeister, J.	0	0	\$0	0	0	\$0	1	0	\$0	
Engler, T.	3	2	\$172,600	3	2	\$94,300	3	1	\$74,300	
Gegenheimer, P.	4	3	\$177,000	2	1	\$92,000	2	1	\$49,301	
Givens, R.	1	1	\$43,000	0	0	\$0	1	1	\$25,250	
Heppert, J.	2	0	\$0	2	1	\$33,500	2	1	\$50,000	
Johnson, C.	6	4	\$145,675	4	2	\$120,118	1	0	\$0	
Kuczera, K.	0	0	\$0	2	0	\$0	1	0	\$0	
Larive, C.	0	0	\$0	5	1	\$10,000	2	1	\$7,500	
Leimkuhler, B.	1	0	\$0	2	1	\$36,828	2	2	\$17,110	
Lerner, D.	1	0	\$0	0	0	\$0	1	0	\$0	
Lunte, C.	5	1	\$72,945	8	5	\$169,316	5	3	\$195,785	
Lunte, S.	4	0	\$0	5	4	\$119,099	6	5	\$155,475	
Macpherson, G.	1	0	\$0	2	2	\$19,354	2	2	\$29,180	
Melott, A.	8	8	\$301,534	8	2	\$57,000	2	0	\$0	
Michaelis, E.	10	8	\$755,408	15	15	\$780,879	14	10	\$857,740	
Michaelis, M.	3	1	\$23,320	2	2	\$53,320	4	3	\$123,163	
Ralston, J.	0	0	\$0	0	0	\$0	0	0	\$0	
Richter, M.	2	0	\$0	3	1	\$85,000	0	0	\$0	
Shandarin, S.	0	0	\$0	1	0	\$0	2	0	\$0	
Siahaan, T.	1	0	\$0	9	2	\$17,500	6	2	\$73,320	
Sophocleous, M	3	1	\$36,000	1	1	\$20,030	1	1	\$60,000	
Southard, M.	1	1	\$11,553	3	2	\$65,500	3	1	\$81,821	
Squier, T.	6	3	\$156,431	4	3	\$150,728	3	1	\$87,764	
Subramaniam, E	5	0	\$0	1	0	\$0	7	2	\$71,554	
Terwilliger, V.	0	0	0	0	0	0	0	0	\$0	
Wilson, G.	4	1	\$29,000	5	4	\$289,107	5	3	\$230,217	
Wong, K.	1	1	\$136,955	2	2	\$531,114	2	1	\$185,837	
Subtotal	116	57	\$3,153,761	119	72	\$3,570,750	112	61	\$3,562,995	
Percent Awarded		49%			61%			54%		

	FY 1992:			FY 1993:			FY 1994:			
WSU	Number Submitted	Number Awarded	Dollars Awarded	Number Submitted	Number Awarded	Dollars Awarded	Number Submitted	Number Awarded	Dollars Awarded	
Alexander, D.	0	0	\$0	1	1	\$67,500	1	1	\$33,750	
Behrman, E.	1	1	\$26,270	0	0	\$0	1	1	\$26,330	
Chaudhuri, J.	0	0	\$0	2	0	\$0	7	1	\$7,500	
DeLillo, T.	1	1	\$35,646	0	0	\$0	0	0	\$0	
Elcrat, A.	0	0	\$0	1	1	\$130,147	2	1	\$69,963	
Hamdeh, H.	0	0	\$0	4	3	\$171,656	3	0	\$0	
Kahol, P.	1	1	\$20,000	2	2	\$213,240	2	2	\$187,227	
Kuchment, P.	0	0	\$0	1	1	\$143,391	2	1	\$81,374	
Motavalli, S.	0	0	\$0	3	1	\$102,619	4	0	\$0	
Papanicolaou, V	0	0	\$0	1	0	\$0	1	0	\$0	
Singhal, R.	0	0	\$0	2	1	\$58,500	0	0	\$0	
Skinner, S.	0	0	\$0	0	0	\$0	3	1	\$10,505	
Stevenson, W.	0	0	\$0	2	0	\$0	3	2	\$57,722	
Taylor, M.	0	0	\$0	2	1	\$110,925	3	3	\$203,743	
Subtotal	3	3	\$81,916	21	11	\$997,978	32	13	\$678,114	
Percent Awarded		100%			52%			41%		
KSU, KU, & WSU										
TOTAL	190	90	\$5,309,597	201	106	\$5,914,844	216	110	\$8,392,861	
Percent Awarded		47%			53%			51%		
						% Change 1992-1994	14%	22%	58%	