

Approved: 2 - 21 - 94
Date

MINUTES OF THE HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT.

The meeting was called to order by Chairperson Bob Mead at 3:30 p.m.. on February 17, 1994 in Room 423-S of the Capitol.

All members were present except:

Representative George Dean, excused
Representative Jerry Henry, excused
Representative Carol Sader, excused

Committee staff present: Lynne Holt, Legislative Research Department
Bob Nugent, Revisor of Statutes
Ellie Luthye, Committee Secretary

Conferees appearing before the committee:

Charles Warren, President, Kansas, Inc.
Howard E. Mossberg, Kansas University
David Bodde, President, MRI Venture

Others attending: See attached list

Chairman Mead called attention to a hand-out from Dennis Shockley on mortgage revenue bonds and mortgage credit guidelines which the committee had requested. (Attachment 1)

The Chair then opened hearings on a proposal to establish a futures fund for university research and development. He called on Dr. Warren as the first conferee.

Dr. Warren stated that Kansas ranked 32nd per capita in receipt of federal funds for research and development and as a result Kansas was selected to participate in the EPSCoR program. The State appropriated \$1.5 million annually for the fiscal years 1993, 1994 and 1995. He concluded it is now being proposed that \$3.0 million be appropriated into a new Futures Fund for Research and Development by the 1994 Legislature to provide a source of state matching grants for federal research and development programs, federal technical assistance programs, and other research and development, educational and technical assistance activities undertaken by the state's universities and colleges. (Attachment 2)

David Bodde, President of MRI Venture, told the committee from the perspective of business development, a solid base university research and development program was essential to growth. He emphasized one of the ways to nurture university research was the leveraging of federal matching funds.

Howard E. Mossberg, Kansas University, spoke to the committee as a member of the Kansas Science and Technology Council. He stated the current EPSCoR program was a cooperative effort among the regents research universities. He told the committee there had been significant shifts in the pattern of research and development funding from federal resources and one of these shifts was the need to help industry develop new technologies and to fuel the international competitiveness and conversion to nondefense technologies. He stated while the main emphasis today centers on our states ability to increase its competitive stance in science, engineering and math funding abilities, they are mindful of the 78% increase proposed in the federal budget to help industry develop new technologies. He concluded the opportunity to participate in the federal resources starts with solid, competitive science and engineering infrastructure. (Attachment 3)

Following these presentations Chairman Mead called for questions from the committee.

Dr. Warren told the committee the EPSCoR money available for FY 94 is \$67 million which will be allocated between 20 recipients and it is important that Kansas have matching funds available. With this in mind, he asked the committee to introduce a bill which would create a matching fund program to support university

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT, Room 423-S
Statehouse, at 3:30 p.m. on February 17, 1994.

based basic research and development.

Following committee discussion Representative Wempe made a conceptual motion to introduce such a bill, seconded by Representative Farmer and the motion carried.

Chairman Mead adjourned the meeting at 4:45 p.m.

The next meeting is scheduled for February 21, 1994.

GUEST LIST

COMMITTEE: Economic Development DATE: 2-17-94

[illegible]

KANSAS DEPARTMENT OF COMMERCE & HOUSING

DIVISION OF HOUSING

MEMORANDUM

TO: House Economic Development Committee

FROM: Dennis M. Shockley *DMS*

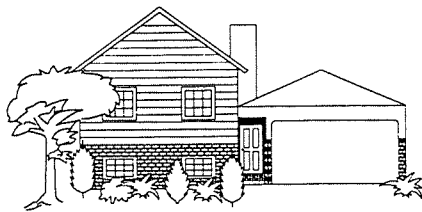
DATE: February 15, 1994

SUBJECT: Mortgage Revenue Bond and mortgage Credit Certificate Program Guidelines

A number of questions were raised yesterday at the hearing on HB 2725 regarding income and home price limits. The following table outline the present program parameters in Kansas.

If you have any questions Please free to please feel free contact me at (913) 296-2686.

*Economic Development
February 17, 1994
Attachment 1*



REQUIREMENTS FOR PARTICIPATION

- * The county in which you are purchasing your home must elect to participate in the program.
- * You must be a first-time homebuyer. **First-time homebuyers are persons who have not had an ownership interest in a principal residence for the last 3 years.** This requirement has been waived for home purchases in the Wichita and Kansas City Target Areas.

- * Your annual gross income falls within limits set by federal law. The current limits, which are subject to annual adjustment, are as follows:

NON-TARGET AREAS	# of People in household	
	<u>1 or 2</u>	<u>3 or more</u>
Kansas City Metro	\$ 42,700	\$ 49,105
Topeka Metro	40,800	46,920
Wichita Metro	44,900	51,635
All other	37,400	43,010

TARGET AREAS	# of People in household	
	<u>1 or 2</u>	<u>3 or more</u>
Kansas City Metro	\$ 51,240	\$ 59,780
Topeka Metro	48,960	57,120
Wichita Metro	53,880	62,860
All other	44,880	52,360

- * The purchase price of the home does not exceed limits imposed by federal law. The current limits, which are subject to annual adjustment, are as follows:

NON-TARGET AREA	<u>NEW</u>	<u>EXISTING</u>
Kansas City Metro	\$ 143,010	\$ 83,610
Lawrence Metro	88,470	62,460
Topeka Metro	88,470	79,020
Wichita Metro	88,200*	61,020*
Geary County	88,470	50,760
All other areas	88,470	50,760

* Subject to increase pending IRS Approval

TARGET AREA	<u>NEW</u>	<u>EXISTING</u>
Kansas City Metro	\$ 174,790	\$ 101,420
Lawrence Metro	108,130	76,340
Topeka Metro	N/A	N/A
Wichita Metro	107,800*	74,580*
Geary County	108,130	62,040
All other areas	N/A	N/A

* Subject to increase pending IRS Approval

- * Your mortgage loan is a new loan, not the assumption, replacement or refinancing of an existing loan or land contract.
- * You intend to make the home your primary residence within 60 days of the loan closing date.

PROPOSAL TO CREATE A "FUTURES FUND" FOR R&D

Testimony of

**Charles R. Warren, Ph.D.
President, Kansas Inc.**

House Committee on Economic Development

February 17, 1994

February 17, 1994

PROPOSAL TO ESTABLISH A "FUTURES FUND" TO INCREASE INVESTMENT IN SCIENCE AND TECHNOLOGY

Background

Kansas ranks 32nd per capita in receipt of federal funds for research and development. As a result, the State has been selected to participate in the Experimental Program to Stimulate Competitive Research (EPSCoR) of the National Science Foundation. The State has appropriated \$1.5 million annually for the fiscal years 1993, 1994 and 1995 to match the NSF grant award. A proposal for extension of the NSF grant is now being prepared.

Additional federal agencies, for example, Department of Defense, NASA, Department of Energy, EPA, and NIH, have also established state EPSCoR programs. Proposals are being submitted by faculty from the Regents' universities to participate in these federal agency EPSCoR programs. If the Kansas proposals are selected for federal funding, each grant awarded will require a one-to-one dollar match from the State. The Kansas Math Coalition desires to apply for a grant from the National Science Foundation to engage in a "Systemic State Initiative" to improve math education in Kansas schools. These, and many other opportunities, can help realize the strategic objectives of "A Kansas Vision," but each will require a state funding commitment. The success of university faculty in securing new federal R&D grants would lift Kansas in the state rankings and help assure that we have a more competitive science and technology infrastructure.

The use of E.D.I.F. monies for university research and development was envisioned in 1986 when the State Gaming Revenues Fund was created. Under K.S.A. 79-4804(c), the Kansas Economic Development Research Account was established for the purposes outlined in the above paragraph. The specific statutory purpose of the account is: "To promote, encourage, implement and promote research and development programs and activities in Kansas and technical assistance funded through state educational institutions under the supervision and control of the state board of regents and other Kansas colleges and universities." Since 1986, no funds for R&D have been appropriated into this account.

The Proposal

It is proposed that \$3.0 million be appropriated into a new Futures Fund for Research and Development by the 1994 Kansas Legislature to provide a source of state matching grants for federal research and development programs, federal technical assistance programs, and other research and development, educational, and technical assistance activities undertaken by

the state's universities and colleges. The current estimate of funds required for state matching for EPSCoR proposals alone is \$3 million in FY 1995. The funds appropriated into the account would be carried over from year to year and invested as provided for in statute. Expended funds would be replenished on an annual basis.

The following process would be used to fund projects:

1. A state review committee (including EPSCoR program directors), established by the Kansas Science and Technology Council, would conduct peer reviews, evaluate programs, make recommendations and set priorities for providing grant matching funds for EPSCoR like programs and seeding new initiatives.
2. The state review committee would make recommendations to the KSTC. It would review the proposals for funding and make its recommendations to the Board of Directors of Kansas Inc.
3. The Board of Directors of Kansas Inc. would approve the funding requests and authorize expenditures from the Fund, including the transfer of monies from the R&D Fund to the state grant recipient (Regents' university or non-profit research entity). (This is the role currently performed by Kansas Inc. with regard to state matching funds for the NSF EPSCoR program). (If EPSCoR is transferred to the Kansas Technology Enterprise Corporation, final approval would be made by the KTEC Board.)

This proposal places the appropriation under the supervision of the Kansas Inc. Board of Directors, and funds are allocated to the appropriate entity when an eligible grant is awarded. This also provides a formal mechanism for the defense of the Research/EPSCoR budgets as a prime responsibility of the Board of Directors and the Kansas Science and Technology Council. The intent here is to provide a formal mechanism of review of grant proposals requiring a state match that proceeds through faculty scientists, the entity currently responsible for developing a science and technology plan for Kansas, and at the policy making level of the Kansas Inc. Board, which includes both the Governor and the legislative leadership. It provides a timely and rational decision-making approach and the establishment of a pool of funds, rather than requiring gubernatorial and legislative action on a grant-by-grant basis.

This proposal was reviewed and amended into its present form by the Executive Committee of the Kansas Science and Technology Council at its meeting on December 14, 1993. The Board of Directors of Kansas Inc. approved this proposal on December 16 and voted to include it in its package of legislative initiatives to implement "A Kansas Vision."

Issue 1c: EPSCoR Funding (Other Assistance) -- Operations

Description: Kansas, Inc. requests \$1.5 million from the EDIF for the Experimental Program to Stimulate Competitive Research (EPSCoR) grants in FY 1994 and FY 1995. This is the third and final year of the federal grant through the National Science Foundation. The federal match for this program totals \$1,480,000 in both fiscal years. Total funding provides for the purchase of research equipment at the three state research universities for the purposes of assisting the universities to be more competitive for receiving federal research grants and building a research equipment infrastructure which will be more able to foster economic development.

Of the \$2,980,000 million total funding in FY 1995, it is estimated that \$2,684,000 would be applied to direct costs and \$296,000 to indirect costs. Indirect costs include institutional fixed costs for administrative services, building and equipment usage and maintenance. The anticipated distribution is as follows.

University of Kansas	\$1,559,300
Kansas State University	1,050,495
Wichita State University	<u>370,205</u>
Total	\$2,980,000

Division of the Budget Recommendation: The Division of the Budget recommends the grant as requested in both fiscal years. FY 1995 is the final year of the three year federal program to which the state has committed the matching grant. It appears likely, however, that additional opportunities may arise for other EPSCoR programs. Federal agencies currently considering establishing matching grant programs include NASA, the Department of Defense, the Department of Energy, and the National Institute for Health. These proposals are likely to involve three year 50-50 match commitments. Consideration could be given, subject to availability of funds, to establish a matching pool of approximately \$1.0 million in FY 1995 to be used if such grants were to be awarded.

Agency Appeals: None

Governor's Recommendation: Add \$500,000 to establish a matching pool.

Legislative Action:

February 17, 1994

EPSCoR Futures Fund Request

Howard E. Mossberg

Member

Kansas Science and Technology Council

1. The current EPSCoR program is a cooperative effort amongst the regents research universities.
2. The FY 1990-94 EPSCoR Funding pattern within the several associated federal programs.
3. Significant shifts in science funding patterns that present future opportunities.
 - a. funds to level the playing field (EPSCoR)
 - b. funds to increase national competitiveness and conversion to peace technologies.
4. Creating the environment within Kansas to develop its fair share of new industries from the shifting patterns of Federal, State, and Industrial research and development partnerships.

*Economic Development
February 17, 1994
Attachment 3*

1, The Universities and the current EPSCoR program.

The NSF Kansas Science and Technology Advanced Research (K*STAR) grant.

*** 87 faculty, including 21 senior mentors that are not directly funded by 16 research project and 2 education projects.**

KSU= 30+ WSU=20+ KU=30+

82 Graduate Students, 21 Undergraduates, 21 Post Doc.

2. FY 94 EPSCoR Funding

	FY93 Enacted	FY94 Enacted	90-94 Total
NSF	24.5	3 2	94
DOE	5	7	21
NIH	.75	.785	1.535
DOD	1 2	6	35
NASA	9.5	9.5	25
EPA	0.8	2	5.3

3. The shifting patterns of R and D funding from Federal Resources.

For the past **four decades** the national strategy for science and engineering funding for research has been to **support basic science** within our nations universities and national laboratories with priority for health and national security.

Two significant shifts have occurred that are important to recognize- **First** funding to level the competitive playing field (**Epscor**) and **second** the need to help industry develop new technologies. to fuel our **international competitiveness** and **conversion to nondefense technologies..**

4. The new R and D. environment.

While our main discussion today centers on our states ability to increase its competitive stance in science, engineering and math funding abilities, we are very attuned to the **78 percent increase** proposed in the Clinton budget for the **National Institute of Standards and Technology.** to **\$874 million, "to help industry develop new technologies".** What this means is that the research university will need to realign a portion of its activities in science and technology to partner with private industry. A shift, in the words of technology transfer managers, to investment grade research and development projects. Small Business Innovation Research projects SBIRs will grow in number and dollar amounts.

Today I'm willing to predict that the **shifts we view today** will be sustained well into the 21st century just as a 1957 event started our sustained national research activities to the end of the cold war. **The opportunity to participate starts with solid, competitive science and engineering infrastructure.** That is the element we place on your agenda today.

KANSAS

Year	NSF	State	No. Sci.	Participating Institutions	Disciplines
1991	100K	50K	-	University of Kansas; Kansas State University; Wichita State University	EPSCoR Planning Grant
1992-95	\$4.48M	\$4.5M	87	University of Kansas; Kansas State University; Wichita State University	Materials & Chemical Sciences; Biological Sciences; Engineering; Theoretical, Mathematical & Computer Sciences
1992-95	\$4.58M	\$4.55M			

GOALS

- Increase emphasis on graduate education to drive the research mission of the universities;
- Improve technical support and service facilities, as well as remove regulations that hamper purchase of research equipment;
- Make grant activity an institutional imperative rather than rely on individual faculty initiative and begin to plan ways to reward grant-submission efforts as well as receipt of grant funding;
- Increase number of faculty who hold promise of developing programs of funded research; and
- Work state wide to improve SEM education in primary and secondary schools as well as encourage women and minorities to pursue SEM careers.

OUTCOMES

(i.e. achievements for 10/92-9/93)

STATE LEVEL:

- K*STAR was formally initiated on October 2, 1992 after official notification of the NSF EPSCoR award of \$4.44 million over three years effective September 15, 1993. The Kansas match has been budgeted at \$4.5 million.
- Kansas Science & Technology Council comprised of 29 members representing private sector, elected officials, foundations and university administrators formed to provide state-level strategy for EPSCoR and Kansas S&T;

FY90-94 EPSCoR FUNDING
(in millions of dollars)

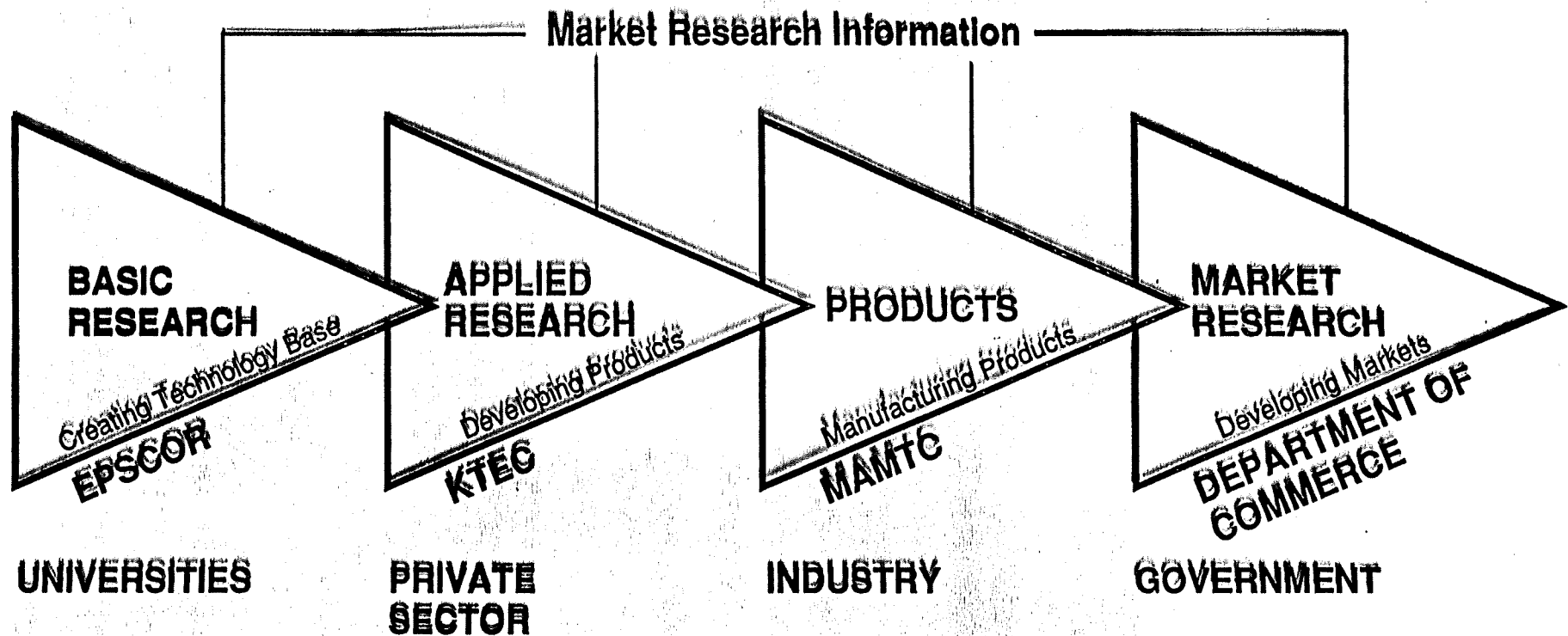
	FY90 Base	FY91 Admin. Request	FY91 Enacted	FY92 Admin. Request	FY92 Enacted	FY93 Admin. Request	FY93 Enacted	FY94 Admin. Request	FY94 Enacted	FY90-94 Total
NSF	8	10	11.0	15	18.5	19.5	24.5	24.5	32.0	163.0 74
DOE	0	0	4.0	0	5	0	5.0	2.0	7.0	23.0 21
USDA	0	0	6.92	0	9.21	0	9.18	0	10.41	35.71
NIH	0	0	0.0	0	0	0	0.75	0	0.785	1.535
DOD	0	0	7.0	0	10	0	12.0	0	6	28.0 35
NASA	0	0	2.5*	0	4*	4.5*	9.5*	9.5*	9.5*	44.0* 55.0
EPA	0	0	1.0	0	0	0	0.8	0	2	5.3 3.3
TOTAL	8	10	31.42	15	46.71	24.0	61.73	36	67.585	300.545
			32.42						67.685	216.545

* NASA budgets include funding for Space Grant - Phase II states (most of which are EPSCoR states). The enacted FY93-94 NASA budgets included \$5 million in funding for a separate NASA EPSCoR program.

Investigator(s) and Institution(s)

<i>Kansas Ultrafast Spectroscopy Program</i> Carey K. Johnson, Lead PI; Robert M. Bowman; Thomas C. Squier	KU
<i>The Photosynthetic ATP Synthase: Mechanism and Regulation</i> Mark L. Richter, Lead PI; Diana J. Bigelow; Peter A. Gegenheimer	KU
<i>Kansas Institute for Theoretical and Computational Science</i> Shih-I Chu, Lead PI; Douglas W. McKay; Raymond Arritt; David Braaten; Ralph Byers; Thomas Cravens; John P. Ralston; Josef Dorfmeister; Krzysztof Kuczer; Benedict J. Leimkuhler; David E. Lerner	KU
<i>The Kansas Program for Molecular Design, Synthesis, and Applications of Macromolecular Materials and Supramolecular Systems</i> Daryle H. Busch, Lead PI; Jeffrey Aube; David R. Benson, Thomas A. Engler; Joseph A. Heppert; Kristin Bowman-James; Richard S. Givens Pawan K. Kahol; B. Jack McCormick; William T. K. Stevenson Eric A. Maata; Andrew S. Borovik; Charles G. Riordan	KU WSU KSU
<i>Chemical Microstructure by Molecular Microspectroscopy</i> Clifton E. Meloan, Lead PI; David L. Wetzel; Paul A. Seib; Richard A. Consigli Steven M. LeVine	KSU KUMC
<i>Some Problems of Integral Geometry with Medical and Industrial Applications</i> Pyotr Kuchment, Lead PI; Kirk Lancaster; Lyudmila Mogilevska; Gonzalo Mendieta (93); Vassilis Papanicolaou (94)	WSU
<i>Signal Transduction in Biology: Analytical Methodology</i> George S. Wilson, Lead PI; Ralph N. Adams; Cynthia Larive; Craig E. Lunte; Susan M. Lunte; Elias K. Michaelis; Mary L. Michaelis; Teruna J. Siahaan; Richard Tessel Fred Samson David A. Rintoul Ram P. Singhal	KU KUMC KSU WSU
<i>Biotic and Abiotic Factors Controlling Nitrogen Flux in Pristine and Agricultural Subsurface Systems</i> A. Paul Schwab, Lead PI; C. W. Rice; W. K. Dodds; M. K. Banks; J. K. Koelliker G. L. Macpherson; M. Sophocleous	KSU KU
<i>Materials Synthesis and Processing</i> Peter M. A. Sherwood, Lead PI; Christopher M. Sorensen; Kenneth J. Klabunde; Andrew S. Borovik; James H. Edgar; Hongxing Jiang; J. Lin; Andrzej Rys; Talat Shahnaz Rahman; Amitabha Chakrabarti; Bruce M. Law; John R. Schlup; Michael J. O'Shea; Gary M. Wysin; William H. Dawes; Michael S. P. Lucas Jharna Chaudhuri; William T. K. Stevenson; Hussein H. Hamdeh Kai Wai Wong	KSU WSU KU
<i>Automated Construction of CAD Drawings from Existing Parts</i> Saeid Motavalli, Lead PI	WSU
<i>Mathematical Modeling in Fluid Mechanics (proposal to build infrastructure)</i> Alan R. Elcrat, Lead PI; Kenneth G. Miller; Thomas K. DeLillo	WSU
<i>Studies in the Formation of Galaxies and Superclusters (proposal to build infrastructure)</i> Adrian L. Melott, Lead PI; Sergei F. Shandarin	KU
<i>Energetics of Interfacial Phenomena: Cellular Disruption in Sparged Reactors (proposal to build infrastructure)</i> Larry A. Glasgow, Lead PI; Larry E. Erickson Marylee E. Southard	KSU KU
<i>Coking and Activity of Petroleum Process Catalysts in Supercritical Reaction Media</i> Bala Subramaniam, Lead PI (proposal to build infrastructure)	KU
<i>Regulation of Muscle-Specific Gene Expression by Sequence-Specific DNA Binding Agents</i> Alan Taylor, Lead PI (proposal to build infrastructure)	WSU
<i>Comparative Resource Use of Trees in Riparian Forests</i> Valery J. Terwilliger, Lead PI (proposal to build infrastructure)	KU
<i>Improving Elementary & Secondary Education Through Expanded Programming at the Lake Afton Public Observatory</i> David R. Alexander, Lead PI (proposal to build infrastructure)	WSU
<i>Interactive Two Way Video Teacher Enhancement</i> Josef Dorfmeister, Lead PI (proposal to build infrastructure)	KU

State Model To Foster Technology And Economic Competitiveness



KTEC = Kansas Technology Enterprise Corp., wholly owned corporation of the state. Hi-tech economic development agency. Yearly budget \$8-10 million.

MAMTC = NIST/Mid-America Manufacturing Technology Center (\$12.5 million/5 years) to improve manufacturing competitiveness.

RESEARCH, GRADUATE STUDIES & PUBLIC SERVICE

2/14/94

BRIEFING DOCUMENT

**TOPIC: Technology Transfer-
Innovation Center-
Economic Development**

SUMMARY:

*For forty years the federal partnership with universities has been in support of basic research in biology, physical sciences and engineering through such agencies as NIH, NSF and Defense to address national concerns of health, science and national security.

*International challenges to competitiveness have threatened our economy. The Clinton answer to the problems of the economy is technology development, increased industrial competitiveness, and the creation of jobs. The federal budget for traditional grant funding is being strangled by the deficit and the diversion of funding to this economic solution. A university, in order to become a player in new programs of industrial partnership and technology transfer, must realign its research programs and develop new partnerships with industry, large and small. Universities must focus on their unique role in transferring technology and expertise to the world of small business. Universities in other states are building on their agricultural experience by developing "industrial extension" functions. Kansas is a small business state. Given our expertise in research, business and engineering it is critical that we take a leadership role in assisting the economic growth through these opportunities.

BACKGROUND:

The U.S. economy is failing due to inadequate competitiveness and the undercutting of the defense industries because of the end of the Cold War. The Clinton/Gore answer to the economy is **technology**. The first policy plan of the new administration was "Technology for America's Economic Growth, A New Direction to Build Economic Strength," in which their plan to use technology development to solve the country's economic problems is outlined. **Increased competitiveness and conversion of defense industries** to domestic growth will result from industry partnerships with other industries and with the science base in this country. Universities are not seen as primary players, but as partners and resources in accomplishing objectives to create new jobs, and new industry. All growth in a tight funding budget is in areas of economic development, technology transfer and defense conversion.

This approach fits with a broader consensus in the Congress that severely limited federal funds must be directed to solving national needs. The image of universities has fallen recently. Without the rationale of "national security" traditional funding to universities is being challenged. The current budget agreements places rigid limits on discretionary spending, the source of most

university grant support. Support is growing to increase "applied" research rather than basic research. To redirect the National Science Foundation to focus on technology and create jobs..

New Programs/New Strategies:

The 1993 Clinton budget increased the funding to the **National Institute for Science and Technology (NIST)** to fund programs of industry-industry-university partnerships in developing industry targeted technologies. The Clinton FY-95 budget increases the funding for this program will increase by \$501 million from \$373 million in FY'94. NIST is the same agency that has funded the Manufacturing Technology Centers such as the one in Kansas. The mission of the MTC is to encourage small to mid-size manufacturers solve business and technology problems and develop growth strategies. The FY'95 Clinton budget shows a doubling of this program to \$63 million dollars.

The **Department of Defense** created a large new funding program to encourage defense conversion by focusing on the development of "dual-use" technologies. The FY'95 proposal is to nearly double the FY'93 amount to \$1.45 billion for this effort to redirect military technology to civilian use. In addition the Technology Reinvestment program was developed two years ago and will be greatly expanded under the Clinton budget proposal for FY'95 (increase of \$100 million).

The extension of the **Small Business Administration** programming included a phased doubling of the set aside amount for Small Business Innovation Research (SBIR) funding by Federal granting agencies. This legislation also increased the first year of SBIR funding (Phase I) from \$50,000 to \$100,000 per project. Phase II funding limit is \$750,000 @; and Phase III is for commercialization.

In addition, the SBA created the Small Business Technology Transfer (STTR) pilot program which creates an additional "set aside" funding pool for the Departments of Defense, Energy, Health & Human Resources, NASA and NSF. This program is high technology-based program which permits cooperative research and development to be conducted jointly by a small business STTR awardee concern and a research institution.

Universities are developing new strategies to participate in these programs. Federal agencies are implementing new funding mechanisms to make the process for flexible and responsive to industry needs. Access to new federal resources demands new partnerships, a new focus on technology transfer, and participation in the new vision of economic redevelopment.