

April 13, 1985

Approved Jayne Aylward Date \_\_\_\_\_

MINUTES OF THE HOUSE COMMITTEE ON COMMUNICATION, COMPUTERS AND TECHNOLOGY

The meeting was called to order by Representative Jayne Aylward at \_\_\_\_\_  
Chairperson

12:00 ~~am~~ <sup>noon</sup> on April 11, 19 85 in room 521-S of the Capitol.

All members were present except:  
Representative Chronister (excused)

Committee staff present:  
Ray Hauke, Research Department  
Raymond Powers, Research Department  
Fred Carman, Revisor's Office  
Jean Mellinger, Secretary to the Committee

Conferees appearing before the committee:

Chairman Jayne Aylward opened the meeting for discussion of topics for interim study.

The chairman said that because there is no committee in the Senate that really deals with the high technology issues specifically, there has been a suggestion that we ask to have some senators who serve on Ways and Means and Transportation and Utilities be on our interim committees so they can get some background in these areas and asked what the feelings of the committee were concerning this. Representative Helgerson said he had written a letter concerning this and suggested that the committee become a joint committee with senators. Chairman Aylward said she could draft another letter aside from the interim request saying that we feel there is a real void in high technology background in the Senate.

The chairman said it had been suggested that we ask for an interim study on the overview of the status of telecommunications since divestiture to get a look at the whole picture as it relates to government telecommunications plan as well as Kansas businesses and consumers.

Representative Dean moved that we ask for an overview study of the telecommunications status since divestiture. Representative Roper seconded the motion. The motion carried.

Chairman Aylward said that during hearings on SB 226, several were surprised at some of the areas that cable TV is involved with, telecommunications, carrying traffic signals, etc. Questions were raised as to whether they, although not regulated, are doing things in areas where other state telecommunications businesses that are regulated are involved. The interim proposal would be to study the systems and see what kind of new technology they are involved with. If they are in competitive technology with other people who are providing the same services, should there be any KCC regulation in this area?

Representative Erne moved that we ask for an interim study of the cable television systems and the kinds of new technology they are involved in. Representative Shore seconded the motion. The motion carried.

Chairman Aylward said the Assessment and Taxation Committee had a proposal this year, HB 2596, to add a two percent surcharge on cable TV systems to fund public television systems which was tabled; and an interim with this committee was requested by the Assessment and Taxation Committee.

Representative Dean moved that we ask for an interim study of HB 2596. Representative Campbell seconded the motion. The motion carried.

The chairman said the fourth suggestion was the funding and status of the Centers of Excellence, whether we need to change the funding levels, a broad overview, with the possibility of looking at the proposed Pittsburg State University Center of Excellence and possibly holding a meeting in Wichita so we can look at the Center of Excellence at Wichita State University.

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON COMMUNICATION, COMPUTERS AND TECHNOLOGY,

room 521-S, Statehouse, at 12:00 noon ~~4:00 p.m.~~ on April 11, 1985.

Representative Green moved that we ask for an interim study of the funding and status of the Centers of Excellence and possibly holding the meeting in Wichita. Representative Dean seconded the motion. The motion carried.

Chairman Aylward said another topic was public TV and radio, the funding formulas we have, the overview that we have done with those before. If HB 2007 passes, they will have a new public broadcasting commission and possibly we could have them come in to see what their goals are for public TV and radio, basically if we are getting the coverage that we need and, if not, what areas we need to expand.

Representative Friedeman moved that we submit a request for an interim study on public TV and radio. Representative Shore seconded the motion. The motion carried.

The chairman said the next was the resale issue and mentioned that the KCC and the committee were each looking at this and said we might suggest this study be made after the KCC comes out with their decision on resale to make them feel the impetus to make that ruling. Representative Erne suggested this might keep the committee from studying this, this summer if KCC doesn't make their ruling in May. Chairman Aylward said that was a good point; and, if the Legislative Coordinating Council authorizes the study, the committee could send a letter to the KCC encouraging them to make a ruling on their study to give the committee direction on this.

Representative Friedeman made a motion that we request an interim study on the resale issue; that we include examination of the KCC Docket on this; and, if that is not available by the time we take it up, we request a staff overview on the resale issue. Representative Dean seconded the motion. The motion carried.

Ray Hauke said he wanted to call the attention of the committee to one issue in the Ways and Means area regarding discussion of continuing review of the state computer system which may be assigned to this committee or perhaps assigned to a special committee. He had, from the Senate side, the subcommittee report, "Issues to be Resolved by Interim Study" (Attachment 1) on decisions facing computer acquisition in Kansas. Chairman Aylward said we could request some type of a topic that would allow the committee to continue to review the state computer system, to get with DISC and with outside planning consultants, etc. Representative Friedeman suggested that if someone else is assigned the job as the interim, we ask them to include some members of this committee so we won't be trying to catch up next January.

Representative Friedeman made a motion that we request an interim study to continue to review the state computer system; and, if it is determined it is to be sent to a different committee, that we have some members on the committee. Representative Roper seconded the motion. The motion carried.

Representative Dean had several suggestions (Attachment 2) from the Kansas Advanced Technology Commission forum. The first was to look at a method for attracting high technology to the State of Kansas and within that method to look at some way of stimulating venture capital whether it be a quasi-public institution or some method of attracting small companies to become venture capital providers. The second one was to increase funding for the research matching grant program that we have with four universities at this time. The next one was to expand our Centers of Excellence. The chairman said that probably would fit under the Centers of Excellence study request. Another one was to establish an industrial liaison at each research university so that there would be a small group at the university that could work with various industries. The last one was that maybe the state could provide matching funds to awardees of Federal Small Business Innovation Research grants in order to stimulate some of the development of high technology firms within the state. Representative Dean moved that we include each one of these as a study with the exception of the Center of Excellence which would fall under a previous request. Representative Friedeman seconded the motion. The motion carried.

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON COMMUNICATION, COMPUTERS AND TECHNOLOGY,

room 521-S, Statehouse, at 12:00 <sup>noon</sup> ~~xxx/xxx~~ on April 11, 1985.

Chairman Aylward said that the minutes will be circulated to the members as soon as they are finished. If anybody has any questions or corrections, let her know; or otherwise they will stand approved as they have been passed out. She stated she would get copies of the letter to the Legislative Coordinating Council to the members before she sends it.

The meeting adjourned at 12:45 p.m.

Representative Campbell requested that it be noted in the minutes that the Chairman did a very good job chairing the committee this session.

## ISSUES TO BE RESOLVED BY INTERIM STUDY

### A. Issues of Compatibility

1. What are levels of systems compatibility that are relevant to the decisions facing computer acquisition in Kansas?
2. What advantages exist for compatibility between large mainframes among users having more than one mainframe?
  - a. Does sufficient interaction exist between information stored in the Kansas Sperry system and the IBM/NAS system that interaction between the two would be advantageous?
  - b. Can information stored in files contained in the IBM/NAS system be addressed by the Sperry Univac system or the existing Sperry terminals? If not what costs are associated with such a feature and what data manipulations are required to allow such interaction?
  - c. Can information stored in files contained in the Sperry system be addressed by the IBM/NAS system or existing IBM compatible terminals. If not what costs are associated with such a feature and what data manipulations are required to allow such interaction?
  - d. Can files written in the Mapper language be addressed by the IBM/NAS system. Would such interaction be advantageous for Kansas based upon estimated utilization?
  - e. Can programs written in IBM COBOL be run on the Sperry (and vice versa) without modification? If not is such interaction advantageous and likely to be possible in the near future?
  - f. Can programs written to run in the IBM operating system MVS-XA be run on an NAS 7000 without modification?

### B. Issues of Cost Containment

1. Which would be less costly in the long term, continued upgrade of both systems or migration to a system in which all hardware is compatible?
  - a. What are reasonable cost estimates for both approaches over the next ten years?
  - b. What methods of cost comparison are most appropriate?
2. What value should be given to the existing software of the Kansas Integrated Personnel and Payroll System (KIPPS) and the Central Accounting System for Kansas (CASK) in the decision outlined above?

(Attachment 1)  
4/11/85

3. Which is considered more desirable and cost effective for large users, purchase of commercially available personnel and accounting software or custom designed software?
  - a. Do commercially available packages typically meet user needs?
  - b. What costs are typically associated with modification of software packages?
  - c. What implementation problems are typically associated with installation of commercially available software?
4. Among generally available personnel software packages, what modifications would be necessary to include all features presently available to KIPPS?
  - a. Are those features of sufficient merit to warrant the cost of programming?
5. Is the issue of hardware backup, in the event of a long-term computer service disruption, of sufficient import to warrant consideration in the hardware acquisition decision?

C. Issues of Distributed Data Processing

1. Which is considered preferable for a large user, such as the state of Kansas, a centralized computer site or a decentralized/distributed system in which several smaller computers partially process information and interact with a larger site?
2. Is mini-computing equipment available which is capable of addressing both the Sperry Univac and the IBM systems?
3. Is a distributed system likely to reduce the need for future mainframe upgrades?
4. Does a distributed system provide improved backup against service disruptions?
5. What control is desirable over decentralized systems and access of the distributed systems to central sites?

D. Issues of Timing

1. How rapidly must a decision be reached concerning hardware upgrade?
  - a. Are both systems operating at a utilization level that requires immediate decisions on upgrade or can upgrade be delayed until FY 1987?

- b. Do the decisions made at this time exclude certain options at a later date?
- c. If some upgrade is made to the Sperry does that make later decisions to eliminate it more difficult?
- d. Is this a "prime time" to make a decision concerning phase out of Sperry or can that decision be made at any time, with no significant difference in cost?

E. Issues of Contracting

- 1. Is contracting for all data processing services an option that is considered feasible for large users?
- 2. What has been the experience of other states in contracting for data processing services?
- 3. What are considered the advantages and disadvantages of contracting for all data processing services?

Issue Paper  
Kansas Advanced Technology Commission

I. Issue/Problem

Should the State of Kansas form a quasi-public institution for the purpose of satisfying the needs of high technology industry which are not presently being met in Kansas.

II. Background

The high technology program established in 1983 within KDED was intended to be "spun-out" from state government within a three to four year period. There are some commonly expressed needs that are often lacking in the Kansas environment that may be satisfied by the mechanism proposed herein. These needs are unique to high tech business, especially during the critical start-up phase of the business. This proposal reflects a trend of other states to stimulate high tech growth in the private sector through a quasi-public organization.

There are currently two such public authorities in Kansas: the Kansas City-Wyandotte County Port Authority and the Mid-States Port Authority. The "authority" would have access to tax-free capitalization (bonds) and would be profit-oriented to the extent that its profits must be reinvested into its chartered functions.

The activities of the authority would include construction and operation of incubator space, management of a venture capital fund, solicitation and administration of cooperative research projects between universities and industry, and possible operation of a fiber optic telecommunications system. Under this proposal, initial costs associated with raising necessary capital and conducting staff operations would be provided by the State (approximately \$350,000).

Alternatives

1. Establish and provide base funding for a "Kansas Advanced Technology Port Authority" (\$400,000). This represents an additional \$250,000 over the current high tech budget, to cover expenses in the following areas:
  - (a) \$80,000 to raise venture capital: analyst, secretary, & benefits- \$50,000; operating expenses, office rental, travel-\$30,000.
  - (b) \$170,000 to manage incubator facilities: three resident managers at major facilities, one central manager with secretary, & fringe benefits-\$135,000; supplies, services, and travel-\$35,000.
2. Continue with the current staff office within KDED as proposed in FY86 budget (\$150,000).

Recommendation

Alternative 1 is recommended, as it meets legislative intent and will leverage substantial private investments in areas of good potential for job creation.

( Attachment 2 )  
4/11/85

ISSUE PAPER  
Kansas Advanced Technology Commission  
1/30/85

I. Issue/Problem

Should the State of Kansas provide matching funds to awardees of federal Small Business Innovation Research (SBIR) grants in order to stimulate the development of new high technology firms?

II. Background

The federal SBIR program was begun in 1983 for the purpose of stimulating new product development in areas that could lead to significant public benefit if the research is successful. Objectives of SBIR include stimulating technological innovation in the private sector, increasing the commercial application of federal research results, and improving the return on investment from federally-funded research for its economic and social benefits to the nation.

Ten federal agencies earmark a total of approximately \$1 billion annually to SBIR, which has already seen a number of successes. In phase I of the program, up to \$50,000 is awarded for feasibility research. About one in ten applicants receive a phase I grant. If phase I research proves positive, a phase II grant of up to \$500,000 for product development may be made, with over 50% of the applicants qualifying for such awards. Many of the phase II projects receive private venture capital.

The inherent problem of SBIR is the time lag between the completion of phase I research and the receipt of phase II funds (a minimum of six months). Projects are effectively idled for a substantial time period. To remedy this problem, states (New York, North Carolina, Utah) have established matching funds of up to \$50,000 for phase I awardees. Several other states, including Missouri and New Mexico, are currently considering such programs.

To date, two very small Kansas companies have completed phase I projects and are waiting for phase II funding. A federal report suggests that Kansas should be receiving approximately nine phase I grants annually, given its population and research capabilities. The Kansas Advanced Technology Commission will attempt to increase the number of grants through promotion and coordination of proposals.

III. Alternatives

1. Provide matching grants for up to ten phase I projects, at a maximum of \$50,000 each. The maximum amount expended would be \$500,000 annually.
2. No action.

IV. Recommendation

Alternative 1 is recommended. Funds would only be matched if the recipient agrees to produce any resulting project in Kansas. State funds will enhance the opportunities to attract private venture capital. It is the opinion of the KATC that the return on this investment would be substantial in terms of job creation.



Issue Paper  
Kansas Advanced Technology Commission

Issue

Should the State of Kansas establish a position of industrial liaison at each research university?

Background

The efforts by Kansas research institutions to develop ties with industry in order to (1) increase support for on-campus research and (2) address the needs of the state's economy, reflects a nationwide trend. Most leading research universities now have an industrial liaison office which exhibits to the private sector and federal agencies a commitment by the university toward high tech development and matches the research needs with university capabilities.

The type of individual envisioned for such a position is primarily one with experience as an industrial scientist or an academic scientist with experience in the realm of industrial development. The activities are currently carried out on each of the four research campuses to limited degrees, by individuals who have numerous other responsibilities (engineering deans, etc.). It is likely that a full-time representative at each research institution (Kansas University, Kansas State University, Wichita State University, and Pittsburg State University) would dramatically increase the ability of the institutions to develop cooperative relationships with industry.

Alternatives

1. Establish an industrial liaison office at each of the four campuses. Assuming existing office space could be used, costs are estimated as follows:

Liaison officer	\$37,000
Clerical support	11,500
Fringe benefits	5,000
Travel	8,000
Supplies & Misc.	2,500
Campus total	\$65,000
	x 4
Maximum cost	\$260,000

2. Continue existing efforts at industrial outreach with individuals whose primary responsibilities lie in teaching, research, and administration and who do not have the appropriate background for the liaison position. Demands for industrial liaison activity will dramatically increase as the universities look to industry for cooperative relationships. It is unrealistic to expect the current system to meet these demands.

Recommendation

Alternative 1 is recommended in order to develop effective programs which serve the needs of both industry and the universities. The liaison officer should report directly to the president or chancellor, and market the capabilities of the university both locally and internationally.

Issue Paper  
Kansas Advanced Technology Commission

Issue

Should the State of Kansas enhance the Centers of Excellence program to utilize research capabilities to address economic potentials?

Background

Centers of Excellence were authorized in 1983 at the University of Kansas, Kansas State University, and Wichita State University for the purpose of enhancing leading edge research programs which offer potential for impact on the Kansas economy. This was the first effort by the State to enhance leading edge university research programs relating to the long-term needs of the state's economy. The existing Centers focus on niches of the economy in which Kansas possesses strength, i.e., aircraft, pharmaceuticals, and manufacturing. It is anticipated that the Centers will be able to sustain themselves financially after the first few years, as relationships are developed with industry and federal agencies.

It is apparent that opportunities exist for the development of nationally-recognized Centers of Excellence in several additional disciplines. These possibilities include computer engineering and computer-aided drug design at Kansas University; biogenetics and laser science at Kansas State, plastics engineering and wood technology at Pittsburg State, and petroleum exploration and handicapped rehabilitation at Wichita State. The actual selection of new Centers would involve proposals by each university to the Board of Regents, with the Advanced Technology Commission playing an advisory role. In the initial (FY86), state funds would be matched 150% by non-state sources, while in the second year state allocations would be matched 50%.

Alternatives

1. Continue with the existing program of three Centers of Excellence, scaling the funding level down (as the Centers rely more on research contracts) to \$140,000 during FY86 and \$120,000 during FY87, with a 50% matching requirement each year.
2. Enhance existing ones by increase FY86 & FY87 funding for the three existing Centers to \$210,000 each with a 50% matching requirement. This would increase the chance of the existing Centers to achieve and maintain national status as research organizations.
3. Establish a new Center of Excellence at each of the four campuses (KU, KSU, PSU, WSU), with \$120,000 to each Center matched by \$180,000 in outside support. During the second year (FY87), provide \$120,000 matched 50% by outside sources as the Centers begin to contract for research projects. Taper off support for existing Centers (currently funded at \$160,000 by the State) to \$140,000 in FY86 and \$120,000 in FY87, with a required outside match of 50%. Incorporate all funding for Centers into the base budgets of the universities.
4. Establish one new Center supported at the level indicated in Alternative 1. Continue with existing Centers at a funding level of \$140,000 in FY86 and \$120,000 in FY87, with a 50% match required.

Recommendation

At this point, no consensus has been developed by the Advanced Technology Commission regarding this issue. However, the Commission will discuss the alternatives and develop such a consensus by Oct. 26.

Issue Paper  
Kansas Advanced Technology Commission

Issue

Should the State of Kansas increase funding for the Research Matching Grant Program?

Background

The Research Matching Grant Program was created in 1983, with \$610,000 appropriated each year for FY84 & FY85. To date, the program has funded seventeen projects with approximately \$630,000 in state funds, with matching industry support of nearly \$1 million. Three research projects are already providing an economic return to the state in terms of an electromagnetic aircraft wing de-icing system and associated power unit, and new analytical techniques to be used in oil exploration.

The four participating institutions have demonstrated the ability to establish cooperative research agreements with industry, with a focus on economic development in Kansas. According to university officials, a number of high quality matching grant proposals exist within the universities which the program, due to its budget allocations, cannot fund.

Alternatives

1. Continue funding the program at the existing level of \$610,000. This will have some impact on the economy but does not allow for funding of all proposals that offer a reasonable chance of economic success.
2. Double the funding level to \$1,220,000 to give the program the ability to meet the increasing industrial market for cooperative research projects. Although it is possible that a portion of the allocated funds will be unused, this alternative would allow for funding of a number of additional high quality proposals. A portion of the fund could require a 200% private cash match (as opposed to the 150% under the current system).
3. Increase funding to \$855,000 as proposed by the Commission during the previous legislative session (also included in KDED FY85 budget at level C).

Recommended Action

Alternative 2 is recommended. It is anticipated that a fund of this size would attract a higher number of quality proposals from Kansas universities and private industry and result in a very significant impact on the state's economy.