KANSAS BOARD OF REGENTS

January 23, 2012

TO: House Vision 2020 Committee
FROM: Andy Tompkins
SUBJECT: Kansas Board of Regents Update and Response to Committee Questions

I appreciate the opportunity to visit with you to update you on the work of the Board of Regents over the past year and to respond to the questions you asked of us last spring. As I mentioned last year, the Kansas Board of Regents adopted a 10 year strategic agenda in the fall of 2010, Foresight 2020. Goals the Board are pursuing include a) improve alignment between K-12 and higher education and alignment within the higher education system; b) increase the participation of Kansas citizens in higher education; c) improve retention and graduation rates; d) enhance student success; e) align with Kansas workforce needs; and f) ensure university excellence. We just completed our first progress report which can be viewed on our website.

I first want to highlight a couple of the major initiatives of the Board over the past year. In December of 2010, the Board adopted revised qualified admissions standards which will be required of incoming university freshmen in the fall of 2015. These were developed over a two year period in cooperation with students, K-12, and higher education. Also, the Board is currently in the midst of a major effort to improve transfer and articulation of general education courses throughout the system. Last week, the Board approved 55-59 hours of general education courses that will transfer across the system. It anticipates that by June a few more hours might be identified that will transfer. Final action on courses, course outcomes, and quality assurance plans will be made in December of 2012.

The following are the responses to the questions that you posed to the Kansas Board of Regents regarding various issues involving higher education in Kansas that you wanted to discuss with us. Additionally, Representative Sloan requested information on taxing authority for technical colleges. Since I will not be able to attend the committee meeting on Wednesday, I have arranged, in cooperation with Representative Sloan, to have the following people available to speak to specific issues: Steve Kearney, executive director of the Kansas Association of Career and Technical Education, technical college taxing authority; Dr. Ron Trewyn, vice president for research at Kansas State University, university research; Jeff Frost, dean of mathematics at Johnson County Community College, community college math issue; and Dr. Gary Alexander, vice president for academic affairs at KBOR, plans for assessment of student learning and the issue of three year degrees.

1. To remove some of the contentiousness and ambiguity related to higher education funding, examine the feasibility, legality, and desirability of increasing the Education

House Vision 2020
1-25, 2012
Attachment 1

Building Fund mill levy to support infrastructure maintenance and installation of educational and research technological equipment for universities, community colleges and technical colleges.

Under current law, the Educational Building Fund receives receipts from a 1.0 statewide mill levy which will generate an estimated $33.2 million in FY 2012 according to the FY 2012 GBR Volume 1. The Educational Building Fund levy was authorized by a constitutional amendment in 1918, with the first levy being made in 1942. The Educational Building Fund has been at least 1.0 mill since 1955. Of the current proceeds, approximately $30 million are being expended annually for rehabilitation and repair of existing academic and academic support buildings at the state universities. According to the most recent Report on State University Deferred and Annual Maintenance (Fall, 2010), the current estimate of the deferred maintenance backlog on the 438 mission-critical academic and academic support buildings is approximately $904 million. Despite the 2007 five-year program authorized by the Legislature (although the program was not fully funded because of the impact of the Great Recession), the deferred maintenance backlog continues to grow and the Board continues to advocate for the addition of an ongoing revenue stream to address the preservation of our buildings. Obviously the Board believes increased funding to help address deferred maintenance is needed. With regard to increasing the EBF mill levy, we note that the 2007 joint legislative committee that studied deferred maintenance considered an increase, but ultimately did not recommend such an increase.

With regard to the questions, there are two legal issues: 1) Can the EBF mill levy be increased to fund public institutions other than the state universities? and 2) can the EBF mill levy be increased to pay for expenditures other than those related to building construction, reconstruction, equipment and repair, and payment of debt service on bonds issued to finance such projects?

Article 6, Section 6 of the Kansas Constitution is the genesis of the EBF. *State, ex rel., v. Bennett*, 222 Kan. 12, 24 (1977). Subsection (a) of that constitutional provision authorizes the Legislature to "levy a permanent tax for the use and benefit of ***state institutions of higher education*** . . . . Further appropriation and ***other provision for finance*** of ***institutions of higher education*** may be made by the legislature."

The tax authorized by this provision may only be used by and for "**state institutions of higher education.**" In establishing the scope of the Board of Regents' control and supervision, Section 2 of Article 6, adopted and amended at all the same times as Section 6, refers to "***public institutions of higher education.***" Because two different terms are used in these two companion sections, we have to assume that they mean two different things. The levy authorized by the Constitution is for the use and benefit of the state institutions of higher education, while other provision for finance may be made by the Legislature for institutions of higher education in general.

K.S.A. 76-6b01 *et seq.* are the statutes that implement Article 6, Section 6(a). As with the Constitutional provision, the tax levied pursuant to these statutes is "for the use and benefit of the ***state institutions of higher education.***" K.S.A. 2010 Supp. 76-6b01(a). The term "***state educational institution***" is defined in K.S.A. 76-711(a) as the six state universities.

Thus, in answer to the first question, whether the EBF tax levy may be increased "to support . . . universities, community colleges and technical colleges," the Constitution, as well as the statutes, would have to be amended because those provisions currently allow use of the EBF only for the benefit of the state universities.

In answer to the second question, whether the EBF tax levy may be increased "to support infrastructure maintenance and installation of educational and research technological equipment," the levy amount in K.S.A. 2010 Supp. 76-6b01(a) would need to be increased and possibly the language in K.S.A. 76-6b02(a) that limits what the funds may be used for (currently allows equipment of buildings and grounds, but perhaps not all equipment needs) would need to be amended. However, with the continuing and significant state university deferred maintenance backlog, the Board would not recommend expanding the statutorily authorized uses.

2. To better convey to legislators and the public what is funded by the state, identify categories most appropriate and politically realistic for block grant state funding at universities, community colleges, and technical colleges e.g. infrastructure, salaries, student aid.

With regard to the state university sector, the State utilizes a block grant/tuition ownership model of state budgeting. The State appropriates base state funding to each of the six state universities while any new state general operating funding is appropriated to the Kansas Board of Regents (KBOR) for allocation to the state universities. An institution's receipt of new state funding is subject to the Board's performance agreement process. The Board believes this structure is appropriate.

With regard to the two-year college sector (community and technical colleges), the State, led by the Postsecondary Technical Education Authority (TEA) and supported by the Board of Regents, has developed a new funding model for state aid based on a tiered cost model. The Legislature enacted SB 143 during the 2011 Session authorizing this new framework for state funding.

Prior to the passage of SB 143, the system of funding the public two-year sector was the subject of many legislative studies, and many attempts were made over the years to try and improve the system. However, funds for this sector continued to be distributed in an inconsistent manner based on statutes pieced together over a span of 40 years, often at the request of individual colleges rather than as a comprehensive system designed to meet state workforce needs. For example,

- Six technical colleges received funding for technical education through the Technical College Aid for Technical Education;
- Six community colleges that merged with technical schools (71-1701 *et seq.*) elected to receive funding for technical education through Other Institutions Aid for Technical Education for the original technical school programs, and through the Community College Operating Grant for all other technical programs;

- One community college that merged with a technical school (71-1701 *et seq.*) elected to receive funding for technical education (both merged and non-merged programs) only through the Community College Operating Grant and did not receive funding through the Other Institutions Aid for Technical Education;
- Twelve community colleges, those that did not merge (71-1701 *et seq.*), received funding for technical education through the Community College Operating Grant and did not have access to the Other Institutions Aid for Technical Education funding; and
- One technical school affiliated with a university and received funding for technical education through the Other Institutions Aid for Technical Education funding.

In a 2009 statute and 2007 and 2008 appropriation provisos, the TEA was charged to "(A) develop and recommend to the State Board of Regents a credit hour funding distribution formula for postsecondary technical education training programs that (i) is tiered to recognize and support cost differentials in providing high-demand, high-tech training, (ii) takes into consideration target industries critical to the Kansas economy, (iii) is responsive to program growth and (iv) includes other factors and considerations as deemed necessary or advisable; and (B) establish and recommend to the State Board of Regents the rates to be used in such funding distribution formula."

The new approach for technical education funding recognizes cost differentials to deliver technical and general education courses. The tiered cost model reflects those additional costs associated with specialized equipment, consumable materials, and other requirements necessary for the delivery of technical courses. Technical programs supporting industries that are economic drivers in the Kansas economy are tiered based on the calculated cost to deliver the program. For example, technical courses in aviation maintenance technology and machining programs are supported at the highest rate; technical courses in computer-aided drafting and welding programs are supported at a mid-level rate, technical courses in business management and graphic design are supported at a lower rate, and general education is supported at the lowest rate. As program enrollments change, the funding formula is responsive to both program growth and declines.

The new approach goes a long way toward improving our system of funding.

- It reverses the current practice of paying for all courses at the same level which encourages the offering of cheaper, lower tech programs.
- It provides the proper incentive to offer courses geared toward higher paid and higher demand occupations.
- It treats both sectors, community colleges and technical colleges, alike.
- It is based on a well researched and documented cost model.

***3.* Identify appropriate and politically realistic opportunities to fund higher education from sources other than State General Funds that will not damage access to and the quality of educational opportunities. Please identify the sources and what specific aspects of higher education could be thusly funded.**

Who pays? Who benefits? Who should pay? These questions are at the core of the public dialogue on higher education finance and there is "no magic bullet." As in the past, state support for higher education will continue to be shaped by demographic and economic forces. Enrollment almost certainly will continue to grow – driven by economic necessity. The Georgetown University Center on Education and the Workforce estimates that by 2018 64% of the jobs in the state will require a postsecondary credential (defined as some college or better). Simultaneously, countervailing economic and demographic forces will make it difficult for states and the federal government to finance the demand for higher education. Educators and policymakers will need to become increasingly thoughtful and intentional about balancing state appropriations to public institutions, student tuition, and need-based student financial assistance in order to achieve the desired level of access and student success. And institutions will face pressure to restrain price increases and increase productivity by focusing relentlessly on priorities and exploiting technology to improve instructional quality and reduce costs (Jones et al.) The Kansas Board of Regents is keenly aware of the challenges and stands ready to work with policymakers to guide postsecondary education in Kansas to meet the needs of the future.

***4.* Student financial aid is important to institutions, students, and state legislators. However, the Legislature does not have a firm idea of what needs exist and what is an appropriate funding mechanism. Develop an appropriate formula and justification for determining state financial assistance funding to students at universities, community colleges, technical colleges and private colleges.**

Affordability is a cornerstone to increasing participation. Affordability is perhaps the most significant barrier to university/college access and it is an issue of growing concern. Although historically Kansas was a low tuition, low state financial aid state, that is no longer the case. Declining state support, increasing tuition, limited trend data on net prices and student borrowing point to fewer affordable options for students at a time when attaining some form of higher education is critical for success in life and work. According to The Project on Student Debt, for the class of 2010 the percentage of graduates in Kansas from four year universities (public and private/non-profit) with debt is 57%; the average debt of those with loans is $22,280.

Kansas is above the national average for net tuition revenue as a percent of total education revenue for public higher education and is significantly below the national average for state financial aid per full-time undergraduate student.

Concern about affordability is warranted and the data strongly supports the Board's budget request last year (which was not funded) and this year's proposal to increase state student financial aid programs for Kansas students. The Board included in the FY 2013 unified budget request the addition of $1,785,852 from the State General Fund for the Kansas Comprehensive Grant Program which provides for need-based grants to students attending the four year public and private independent institutions. Since FY 2009, the KCG has lost ground with the implementation of legislative budget cuts and the loss of federal aid that has been co-mingled with the KCG from the federal Leveraging Educational Assistance Partnership (LEAP) funding. The amount of state and federal funding lost to the program since FY 2009 has been $1.8

million. The request of $1.8 million would restore this amount for a total amount of $15.7 million and bring it back to FY 2009 level.

As the need increases for Kansans to have some postsecondary education, but not necessarily a four year degree, ensuring affordability and access to two-year colleges is critical. Kansas does not have a general state need-based student financial aid program that can be accessed by Kansans attending our two-year colleges. While the median annual tuition at two-year colleges in Kansas (for academic year 2009-2010) was $2,425, according to the National Center for Educational Statistics the net price for attending a Kansas two-year college (in academic year 2008-2009) was calculated to be $6,780. The net price is the average cost of attendance, minus the average scholarship and grant aid received. As part of the Board's legislative package to the Governor and Legislature, the Board included a legislative proposal to redesign the out-dated vocational scholarship program into a technical education grant program for students enrolled in high-demand, high-cost programs at two year colleges providing need-based grants to approximately 500 students. The Board included in its FY 2013 unified budget request, a proposal for new funding of a redesigned program which would build on the current level of funding of $114,075 by adding $385,925 SGF for a total of $500,000 for the new program.

5. In support of the State's economic development initiatives, identify appropriate and politically acceptable ways by which the State can more effectively support innovative research efforts at Regents' institutions and the commercialization of the products of such research, especially in terms of making smaller discoveries more available for commercial development by Kansans.

Response developed from information provided by members of the Kansas Board of Regents' Council of Chief Research Officers: Dr. Steve Warren, University of Kansas; Dr. Ron Trewyn, Kansas State University; and David McDonald, Wichita State University:

Dr. Steve Warren, of the University of Kansas, notes that "many factors can influence the licensing of a university technology. High-impact publications and patent applications, for example, are read by scientists and by business development executives of companies working in similar fields. These publications can set the stage for a dialog around licensing. Marketing efforts directed at these companies by the technology transfer office can also stimulate dialog. However, a survey by the Association of University Technology Managers (AUTM) of several large research universities across the country revealed that 63%[1] of all executed licenses came as a direct result of company interaction with an investigator, suggesting that it was direct inventor contact and interaction with industry that was the primary driver in successful licensing and commercialization. This clearly supports the need to increase faculty interaction with the private sector.

As emerging technology is so often incompatible with the immediate market driven concerns of an emerging company, many early stage university technologies are licensed to established companies rather than being developed through start-up ventures. However, the reality is that

[1] Jansen, Christina and Dillon, Harrison F. "Where do the leads for licenses come from?: Source data from six US institutions." Industry and Higher Education. Volume 14, Number 3, 1 June 2000 , pp. 150-156(7)

most early stage technology is too early in its development to be attractive to a company for licensing. The cost of patent prosecution puts time pressure on the technology to be developed fast enough to be attractive for licensing or venture investment prior to the ramp-up of significant patent expense."

Dr. Ron Trewyn, of Kansas State University, expands on Dr. Warren's discussion of the AUTM to note that "there might be some additional considerations for building faculty interactions with the private sector." Dr. Trewyn references the Kansas Science and Technology Plan currently in the planning/development stages. This plan will "define the pillars of the Kansas economy and these economic sectors could/should be pivotal in linking state universities to commercial development by companies in Kansas. Wichita State University's linkage to the aviation industry via the National Institute for Aviation Research is a perfect example of how this can work; it just needs to be expanded systematically to the other major economic sectors. Interestingly, that's where the small population base in Kansas can actually be exploited as strength (rather than a weakness), since these linkages can be made more easily here than in states with huge populations ... partnerships can be built face-to-face in Kansas. The Governor's economic summits in 2011 proved that point with outstanding turn-outs from both the public and private sectors."

Dr. David McDonald cites an example at his institution, Wichita State University, which "dovetails nicely with this emerging model of engagement between Kansas research universities and the private sector for the purposes of commercial development." Wichita State has created a new Center of Innovation for Enterprise Engagement that was recently named as one of the recipients of the Obama administration's Jobs and Innovation Challenge Award."

The Council of Chief Research Officers proposes "that the state of Kansas create a *Proof of Concept* fund to support the development of emerging technologies at Kansas Universities. Support would be primarily driven by considerations of use and practical applications of research results with a particular product as the outcome. Access to these funds would be limited to technologies being developed by university faculty in collaboration with Kansas based companies, including both start-up and established companies. These funds could be used to support exploratory research between a company and a Regent's university faculty member as well as proof-of –concept research where an invention has already been disclosed. To avoid overlap with the Kansas Bioscience R&D Voucher Program, no bioscience related efforts would be supported. Other than this limitation, no restrictions would be placed on the type of product or area of endeavor. Funds would be awarded on a strictly merit basis as determined by an appropriately constituted external review committee. The review committee should include experienced entrepreneurs with ties to Kansas. Funds could be used to support the direct costs of research as well as the management of any resulting intellectual property (e.g. patent application fees, etc.) licensed to a Kansas company in connection with a funded project.

Dr. Trewyn proposes that neither the biosciences nor any other economic sector should be excluded, since the purpose would actually be different than the KBA's R&D Voucher Program. He presumes that, while the original concept could come from the company or the university, actually tapping into *Proof of Concept* funding would require a collaborative effort between a Kansas company and a state university. That said, the R&D path forward should be driven by

marketplace needs, so the company would likely have to lead the effort. Moreover, it would not be unreasonable to expect the company to match the *Proof of Concept* funds being invested.

6. Determine if measures of student knowledge and critical thinking capabilities (e.g., the Collegiate Learning Assessment) are being used by all Kansas public universities and if such studies are used how well our students compare to students at other colleges and universities. If such studies are not being used, please explain why such accountability metrics are not deemed important.

Kansas' public universities participate in the Voluntary System of Accountability (VSA), "an initiative by public four-year universities to supply clear, accessible, and comparable information on the undergraduate student experience . . . through a common web report—the College Portrait." The VSA is sponsored by the Association of Public and Land-grant universities (APLU) and the Association of State Colleges and Universities (AASCU).

Based on information provided, each university is represented by a *College Portrait* that includes consumer information, a snapshot of student experiences and activities, and evidence of student learning. Each institution describes how it evaluates student learning and participates in a VSA pilot project using one of three instruments to measure student learning gains in critical thinking and written communication. The *College Portrait* provides a broad basis for comparison among different institutions, although the assessment of student learning, in particular, remains in its initial stages.

Each of the state's public universities either uses, or has used the CLA as part of its process of assessing student learning. In addition they report using a variety of other measures to evaluate student learning. KU, for example, has switched to an ETS produce, the Proficiency Profile, due to concerns with the CLA test. Washburn University is also using the ETS proficiency Profile. Fort Hays uses a variety of direct and indirect measures to assess student learning and engagement, supplemented by local measurement tools developed by faculty in specific program areas. These examples reflect the types of assessment undertaken by all public state universities.

In addition, the Board of Regents' strategic plan, *Foresight 2020*, requires that during 2011-12, the System Council of Chief Academic Officers will finalize a proposal for assessment of a set of common learning outcomes for the KBOR system. Beginning in FY14, each public institution will report on its assessment of those learner outcomes.

7. As a cost-saving option for students, determine whether a 3-year degree option (e.g., as used at Amherst, American University, and other institutions) or the 3+1 proposal (e.g., as advanced by the University of Virginia) are appropriate for Kansas' Regents' institutions, especially in light of the number of Advanced Placement course credits entering Freshmen have and the number of credits college students transfer from on-line classes taken. If appropriate, what steps will be taken to promote or implement such programs if they are not already promoted. If such program options are inappropriate in Kansas, please explain why that is so.

In general, Kansas' public universities do not consider the three-year option appropriate for their student bodies. None of the state's public universities offers a formal three-year degree option, although there are situations in which it is possible for students to graduate in three years, e.g., high school students with sufficient concurrent enrollment and/or Advanced Placement credits; transfer student with sufficient credits. Pittsburg State University notes that, since most of its students work to meet expenses, it does not consider them a good target for such programs, but it is not opposed to discussing the possibility of offering the option for targeted programs. Wichita State considered the possibility of a three-year degree some years ago, but determined that the nature of its student body and current four-year graduation rate make a three-year track infeasible for WSU students.

With its international presence, Fort Hays has considered various types of shortened degree programs, including the three-year degree option. The university cautions that that this pathway could be as expensive in terms of time and faculty labor costs as a four-year degree, since to teach enough courses in a compacted three-year period often takes more faculty than are required in a regular four-year degree program. It suggests the three-year degree has pros and cons that need to be explored in more detail before implementation becomes more widespread.

Another option, under consideration by Fort Hays, is to develop shortened courses of twelve, eight, and six weeks, for example, to accommodate working adult Kansans who have some credits but need a credential of some sort. Distance learning, in particular, can become a strategic asset to improve persistence and graduation rates, as students can apply distance learning and shortened courses to accelerate and customize their own progress toward degree completion and academic success.

8. Determine whether Kansas' community colleges use the Virginia Tech "Math Emporium" approach that focuses on student deficiencies and needs (e.g., Montgomery College) or combining remediation with college-level study (e.g., the Accelerated Learning Program at the Community College of Baltimore County). If our community colleges utilize the above or similar programs, please report the success of such programs in student learning and retention. If our community colleges do not use such programs, please describe the existing programs and explain why they are more successful than alternative programs.

Only one of the Kansas community colleges responding reports using a version of the programs cited. Johnson County Community College faculty are familiar with the Emporium model and a number of years ago the college began offering classes similar to the Emporium model, i.e., computer-assisted classes taught in a computer lab with an instructor providing mini-lectures and students spending the remainder of the time working independently on the computer (with instructor available as a resource). This approach works for some students, but in general students from more traditional face-to-face developmental classes have better success rates.

Johnson County faculty have recently begun an initiative called Accelerated Review Courses (ARCs) in which students take an assessment using the ALEKS math program that shows what

the student has mastered and what remains to be mastered. Problems are then created in the areas the student has yet to master, in effect providing each student with an individualized instructional program. After spending two weeks in this form of inquiry, the student then spends the remaining fourteen weeks in a traditional class setting. It is too early to determine conclusively how effective ARCs are, but some students in fall 2010 and spring 2011 were able to skip a math course, saving them significant time and money. Math faculty at JCCC offer a variety of pedagogical formats and are in the process of trying to identify and place students into the format where that student will have the greatest chance of being successful.

Kansas City Kansas Community College will be adopting a fast track model similar to that used at Montgomery College. It will work to drill students on common math concepts taught in the course in which they are enrolled, as well as concepts required for the course at the next level. Upon completing the fast track, the student will be assessed and either remain in place or move up to the next level of developmental math. The college is considering whether to use the computer-assisted or traditional lecture format in the follow-up to the fast track.

While no other college reports using these programs or something similar, several reported on a range of initiatives designed to improve developmental mathematics education. For example, *Cowley County Community College* has been piloting a developmental math course that takes the competencies of two 16-week developmental math courses and blends the instruction of both disciplines together. This allows learners to be "college ready" in one semester instead of two semesters. This is a savings both in time and tuition costs, too. The uniqueness of this course is that it exposes the learners to more difficult concepts early on and with more repetition. As developmental math learners are exposed to higher levels of thinking, they begin to build confidence about their numeracy skills and with the repeated exposure to algebraic reasoning learners become more proficient in difficult concepts. In addition, the instructor builds a Learning Community Environment where learners are free to express their level of understanding on math concepts, ask questions, give feedback and assistance to their peers, and keep each other accountable for the learning in the course. This new course has shown very favorable outcomes, with a retention rate above 70% and an average cumulative GPA for this cohort group that is higher than that of students in current course offerings.

In addition, the Cowley College Adult Education and College Preparation Program will begin using the on-line curriculum to prepare their learners for both the GED Exam and college-level math courses. This will help in the transition of this population from the adult education program into the college environment and will reduce the number of learners who need a developmental math course.

Several colleges report placing students in the appropriate classes based on either an ACT score or a score on a placement test like COMPASS (an ACT product). Several also indicate they use a concentrated approach to student services for individuals in developmental courses, including computer-assisted approaches.

We look forward to our discussion with you and hope you find it helpful as you determine legislative initiatives of interest to the committee.