

# **Kansas State University**

## **Report from Legislative Post Audit Efficiency Task Force**

**Fall 2009**

**Prepared by:  
Office of the Provost  
Kansas State University  
106 Anderson Hall  
Manhattan, KS 66506  
(785) 532-6224**

**Approved by:  
President Kirk Schulz  
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### **Charge for the LPA Efficiency Task Force:**

- Study and report to the Board of Regents by December 10, 2009 regarding each of the recommendations for executive action presented in the LPA Efficiency Study Report. The report to the BOR shall present information that responds to the following questions for each of the LPA suggestions:
  - Will our university pursue and implement this action on our campus?
  - If yes, then how?
  - If no, then why not?
- Steps that have already been taken to implement any of the listed recommendations should be included in the report. The report should also include whether we intend to take additional steps along those lines, and if not, why not.

### **Task Force Process**

The LPA Efficiency Task Force was appointed in September 2009 and has met weekly during the past two months. We examined each of the ten areas in which the LPA report suggested universities seek efficiencies. We gathered data from a number of areas and brought in staff with more expertise when necessary. In the sections below, we have provided details that indicate the level of our current operations, as well as strategies or actions that we will be pursuing in the future to target improved efficiencies.

### **Context Activity: 2009-10 K-State Budget Initiative**

The University began an extensive budget initiative in September 2009, and invited all faculty, staff, administrators and students to submit ideas for cost reductions and revenue enhancements. This process resulted in numerous ideas that will be analyzed further to determine the extent to which they can generate cost savings or increased revenues to the K-State campus and associated operations. Some of the ideas concern areas related to the LPA report. Thus, some efficiency strategies may emerge from this process and we have made note of these in this report.

### **Recommended Areas of Efficiency Improvement from LPA Report**

Each category of the recommended actions is discussed, and actions that are currently in place or those that will be initiated in the future are identified.

- A. *Eliminating or combining low-enrollment course sections*** – The report indicated that for the 2007-08 academic year, K-State taught 587 sections of classes labeled as “low enrollment.” Low enrollment was defined by the audit team as nine or fewer students for classes at the 0-499 levels, and four or fewer students for 500-699 levels.
1. **2009 Data:** The LPA Report was based on data from 2007-08. We have gathered more current data and found that 198 courses in the Fall 2009 semester were considered “low enrollment,” based on the LPA standards. Doubling this figure to

- make it comparable to annualized data in the LPA report, we arrived at an estimate of 396 classes for the 2009-10 year. This estimate means we project nearly 200 fewer sections of low enrollment classes for the present academic year.
2. **Relabeling classes:** We have discovered that an important factor in reporting low enrollment classes is the category in which a course is placed. In our analysis of fall 2009 classes, many classes did not fit appropriately under the labels of “lecture,” “recitation,” or “lab” courses. We have a number of courses in which there will always be lower enrollments because the classes are geared to train or instruct students at a more individualized level. Some examples of these are Professional Development classes in which students learn to be mentors for at-risk students, Pilot Training classes, and Specialized Teacher Preparation classes. We will create a new label for these types of courses so they will be easily identified and their reason for low enrollments will be clear.
  3. **Early Warning System for Low Enrollment classes:** We will be implementing an “early warning” process to assist departments in the identification of low enrollment classes. The Office of Planning and Analysis will send a list of low enrollment courses to the respective departments and colleges after pre-enrollment is completed near the end of each semester. This will allow departments to make changes, combine sections, or cancel classes prior to the start of the next semester. The department heads will have to justify the need for retaining any low enrollment courses to the Dean and Provost. It should be noted, however, that this strategy is somewhat limited because a percentage of students do not pre-enroll for financial reasons. Since there is no penalty for late enrollment or any incentive for enrolling early, some save money by waiting to enroll. Thus, the enrollments that show after pre-enrollment might not reflect what the actual enrollment will be at the start of the new semester.
  4. **Changes in Course Offerings:** We will also request that all departments examine their recent class enrollments to determine whether current courses can be taught less frequently or cancelled if enrollment trends suggest a history of low enrollment.

***B. Eliminating or combining academic departments or degree programs***

1. **Budget Initiative:** Our campus-wide Budget Initiative resulted in numerous suggestions for combining colleges, departments, or programs. Each of these strategies will be examined for their merit and potential financial savings. Such strategies are more likely to be long-term options at best. If such options are pursued, tenured faculty members associated with these programs would need to be moved to other programs or colleges. Another constraint is that some changes in academic structures or program cancellations are governed by policies in our University Handbook. Our analysis of these strategies will proceed cautiously with these constraints in mind.

***C. Collaborating with other universities to share course content, teachers, and instructional programs***

1. **Great Plains IDEA:** The Great Plains Interactive Distance Education Alliance (IDEA) is an inter-institutional alliance whose genesis dates back to 1994, but was formally established in 2001 through a grant from the U.S. Department of Education

- Fund for the Improvement of Post-Secondary Education (FIPSE). It is currently comprised of 14 land grant institutions with 14 more intending to join. Academic programs in the area of human sciences are at the core of the Alliance. Each member institution offers distance courses that can be taken by students from all member institutions, and awards academic credit and degrees for programs in which they participate. Curricula are developed by inter-institutional faculty teams. K-State garnered the funding for the alliance and has served as the managing partner for the Great Plains IDEA since its inception in 2001. K-State fully participates in six of the seven Great Plains IDEA programs—all but Family & Consumer Sciences Education.
2. **Institute for Academic Alliances:** Given K-State's success with Great Plains IDEA and its leadership in developing collaborative higher education distance programs, we received funding from the Department of Education in 2004 to establish the Institute for Academic Alliances (IAA). The IAA provides support to develop and implement collaborative distance academic program alliances. The IAA has initiated and manages a number of collaborative alliances in addition to the Great Plains IDEA.
    - i. **AG\*IDEA:** In March 2008, the scope of the Great Plains IDEA expanded beyond the human sciences to include agriculture and related programs. The Agriculture Interactive Distance Education Alliance (AG\*IDEA) currently includes 28 land grant universities offering degrees in agriculture and related sciences. AG\*IDEA will be capable of offering six graduate certificates in agriculture-related programs by 2011. K-State was one of the four founding members of AG\*IDEA and, through the IAA, manages the program.
    - ii. **Big 12 Engineering Consortium:** This collaborative program was formally established in 2008 and was initiated in the area of Nuclear Engineering. The Consortium enables students to enroll at any Big 12 school and take online nuclear engineering courses taught by Kansas State University, Texas A&M University, University of Missouri, and the University of Texas-Austin without having to deal with credit transfer. Nine online courses in nuclear engineering are currently offered by the Consortium, as well as a summer institute that engages students in hands-on training at the UT reactor in Austin. The Big 12 is currently considering the development of collaborative, online programs in other engineering fields.
    - iii. **Other Programs:** Given its successes, the IAA is currently involved in the development of a number of other collaborative distance programs, either through development or indirect assistance.
  3. **Cooperative Relationships with Community Colleges:** In addition to these various inter-institutional alliances, K-State also provides nine bachelor's degree completion programs through distance education and has signed 44 2+2 agreements with community colleges in Kansas. This arrangement facilitates the acquisition of bachelor's degrees from K-State by place-bound students from across the state of Kansas.

***D. Increasing the number of courses and programs offered online or through distance learning***

1. **Current Distance Learning Courses and Programs:** Through distance education, K-State currently offers 380 courses, 14 bachelor's degree completion programs, 20 masters and eight certificate programs.
2. **Under Development:** K-State is currently developing 29 new online courses, as well as two new bachelor's degree completion programs, two new masters programs, and three new online certificate programs.
3. **Efficiency of Distance Education:** It is important to note that while there is a belief that online education is less costly than face-to-face, our experience with distance courses and programs does not necessarily support this belief. It does, however, allow K-State to reach an audience that is not mobile, i.e. "place-bound." The costs at K-State involved in the delivery of distance education include the following:
  - i. The purchasing, maintenance, and continual upgrade and support of the technology.
  - ii. K-State's own course management system, known as K-State Online. The cost to maintain and upgrade K-State Online includes the need for software developers and online course designers to assist faculty in the development and facilitation of their distance classes.
  - iii. The time involved for faculty members to teach distance courses. Often faculty members spend more time with distance and online courses than their face-to-face courses, given the needs of the more distance-dispersed students who require assistance at all times of the day.
  - iv. The cost of teaching more distance courses. Many of our faculty members teach distance courses on an overload basis, on top of their regular teaching load. Such a model is only sustainable to a point until it gets unwieldy. As the number of distance courses increases, we will need to change our model for how we consider distance courses in our teaching assignments. Shifting distance courses to be part of the faculty member's regular teaching load would require us to either hire more adjuncts and full- or part-time faculty to teach the face-to-face courses or cancel those face-to-face sections that could not be covered. We can (and do) hire adjunct instructors to teach some distance courses, but we are limited in many cases due to necessary faculty requirements for the classes (e.g., requirement of graduate faculty status for all graduate-level courses) or to maintain the integrity of the individualized course components (e.g., use of a video specially developed by the teaching faculty member as part of the available course materials).

***E. Increasing faculty workloads***

1. **Updated Information on Faculty Workloads:** Since the LPA report used data from 2007, the university has been through two fiscal years of budget reductions. Fulfilling the required reductions in our budget resulted in the elimination of over 30 faculty positions. In addition, we have held over 75 faculty positions vacant or have filled them with temporary or part-time instructors. Enrollments have risen in that same period of time, and we have generated more student credit hours in Fall 2009

- compared to Fall 2007. In addition, the staff positions that support the work of the faculty have also been dramatically reduced. Over 80 classified and unclassified professional staff positions have been eliminated, and another 77 of these types of positions have been held vacant. This loss of staff support means that current faculty members must perform additional tasks previously accomplished by these staff members. We are operating in a non-sustainable environment with regard to being able to provide the same high level of service we have provided in the past with a reduced number of faculty and staff members under increasing demand and enrollments. We believe that our faculty teaching loads reflect a very efficient use of resources and productivity, particularly given the decrease in personnel.
2. **Peer Comparison:** Since the LPA Report did not compare the Regents research universities to comparable peers, it is important to determine a better context for comparison. The attached table shows data from the University of Delaware's National Study of Instructional Costs and Productivity. This table clearly shows that, compared to our peer institutions, across a wide range of departments, K-State is (1) more efficient in terms of total student credit hours produced and FTE students taught, and (2) less costly in terms of instructional expense per student credit hour and per FTE student. In most cases, the data show K-State to be significantly more efficient and less costly than our peers.
  3. **Importance of Research:** An important aspect of a research university is the amount of faculty time allocated to conducting research. This research generates a significant portion of funding for the university. In fact, 20% of our overall university budget is funded by extramural support obtained directly from faculty research grants. That funding typically comes from outside the state, significantly enhances the educational experience, and frequently results in knowledge that enhances the State economy. In thinking about increasing faculty instructional assignments, we must recognize that any efficiency gained with respect to teaching loads may be outweighed by the loss of extramural funding. For example, our FY 2009 level of extramural funding at K-State (\$133 million) was generated by faculty members whose research assignments totaled approximately 300 FTE. This means that each tenth of faculty research time generated over \$45,000 of extramural funding. Shifting faculty assignments toward teaching and away from research could significantly affect our extramural funding.

***F. Modifying the delivery of remedial courses***

1. **K-State and Remedial Courses:** Overall, K-State offers a minimal number of remedial courses. For Fall 2009, we had only 42 sections of remedial math, English, and reading classes.
2. **The Cost of Remedial Education:** Much of the reported higher cost of remedial courses at K-State was centered on the Salina campus where two full professors regularly teach multiple sections of remedial algebra courses. We will be seeking ways to alleviate the need for full professors to teach these courses, which will lower our cost per remedial course significantly.
3. **Partnering with Community Colleges for Remedial Courses:** Given the number of 2+2 programs that we offer jointly with community colleges, we depend on the community colleges to help prepare those students who subsequently attend K-State to complete a bachelor's degree. We will explore partnerships with community

colleges as we seek ways to reduce the number of remedial courses offered at K-State.

***G. Maximizing the use of existing classroom and laboratory space***

1. **Documented Lab Space:** The LPA report showed a very large amount of square footage designated as lab space. It is important to note that much of that lab space likely included spaces devoted to activities related to animal maintenance such as pens and feeding facilities, and crop production and horticultural experimentation spaces such as greenhouses. As the land grant university in the state, these are officially reported as “lab” spaces, yet they require considerably more square footage than conventional teaching labs in fields such as chemistry, biology, or physics.
2. **Classroom Space/Usage Audit:** At K-State, room usage is partly decentralized with the colleges and departments maintaining control of their own spaces and the university in control of general use classrooms. While K-State has clear central documentation of the usage of its general use classrooms, less is centrally known about the usage of department-specific classrooms. The capacity in the general use classrooms is efficiently used, but we do not have the same data on department-specific classroom spaces. We will be conducting an audit of all classroom spaces in order to better document where efficiencies can be gained in classroom space usage.
3. **Minimizing Summer School and Intersession Classroom Usage:** At the present time, instructors request specific rooms for their classes during summer school and intersession. This can lead to inefficient space utilization during these off-semester times. We will be implementing a more efficient plan for locating summer school and intersession classes to minimize the number of buildings used.

***H. Consolidating or changing administrative functions or processes***

1. **Feedback from Budget Initiative:** The current Budget Initiative process has identified numerous possibilities for cost savings or improved efficiency of operations. We will be analyzing each of these suggestions and implementing any and all that will improve efficiency of administrative functions. Some examples of possible services that will be examined are human resources, printing and information technology.
2. **Library Subscription Database Consortia:** University libraries participate in three consortia: Greater Western Library Alliance, Regents Libraries Database Consortium, and EPSCOR Science Information Group. Because we are members of these consortia, we pay for database subscriptions at a lower rate than if we subscribed to these services on our own. In addition, the database memberships and licenses allow us to avoid hardcopy procurement costs.
3. **Off-Site Library Storage Agreement:** About two years ago we signed an agreement with the University of Kansas to lease storage space for 500,000 volumes currently being housed in facilities on the Manhattan campus but not accessed frequently. While there are costs associated with this approach (e.g., a onetime relocation cost for these materials, an annual lease payment for the space and transportation costs of needed materials), they are considerably less than the cost of constructing and staffing a book warehouse facility on our campus.

4. **Sharing of Technology and Specialized Equipment:** There are continuous efforts to create research centers and spaces to share expensive research equipment and expertise among academic departments. Early examples were the KSU Electronic Design Laboratory and the Biotechnology Center. Most recently, the Lipidomics Center and the Bioinformatics Center have been established. Other examples involve the sharing of technology, such as equipment for confocal microscopy and flow cytometry. Our research centers are often formed with an infusion of federal research dollars, allowing a shift of funding from state resources. Furthermore, they provide our faculty members with the equipment, skills, and expertise to be successful in applications for additional research funding as well as allowing us to avoid needless duplication of equipment.
5. **Electronic Student Billing:** We now produce only on-line bills for our students. This decision has resulted in savings for printing, envelopes and postage—and produced a favorable change in bill collection patterns. For example, our volume of electronic payments increased from 8% of the total cashiering volume over 25% since 2007. At the beginning of this fiscal year we began offering online signup for the University managed Tuition Installment Payment Plan. This plan provides students a low cost and effective method for spreading tuition costs over a longer time during a semester. On-line access has increased plan usage by approximately 35%.
6. **Electronic Dissertation and Thesis Submission:** A year ago we instituted a policy requiring all doctoral and masters graduate students to submit their dissertations, theses, and reports in electronic (PDF) form. Under this new policy, students submit their documents to the K-State Research Exchange, a website developed for that purpose. The time it takes Graduate School and university library staff to review and process these documents has been greatly reduced and approved documents are typically available online within a few days of submission. In addition, our students save the cost of reproducing their dissertations and theses. This approach also means that K-State theses and dissertations are automatically indexed by Google and other search engines—thus greatly expanding access to academic research done by our students.
7. **Electronic Conferencing:** Agricultural Research and Extension is using new media technologies such as *Wimba* and *Connect* to facilitate employee training at its remote sites located across the state.
8. **Reorganizing Agricultural Research/Extension Media Services:** Agricultural Research and Extension has merged its print, radio, and television news functions into one administrative unit. The synergy between these areas is resulting in higher quality releases for all news media outlets and local Extension offices. This approach more appropriately meets audience demands, represents a more efficient administrative structure, and capitalizes on the use of technology to deliver our messages more effectively.
9. **Developing a Learning Management System:** K-State has developed in-house and deployed a very functional learning management system known as *K-State Online*. This system allows K-State faculty to supplement traditional face-to-face instruction with additional web-based information and to efficiently communicate with students electronically. *K-State Online* is used in more than 2,300 of our courses. This system is also used as our platform for providing distance courses. Because we have



- developed this comprehensive system in-house and maintain it with existing university staff, we are able to avoid uncontrollable annual increases in license, maintenance and external support costs associated with commercial products such as BlackBoard.
10. **Grounds Maintenance:** We are expanding the use of technology to reduce water use and we are using mulching mowers to help reduce fertilizer costs. Employees are using bicycles rather than motorized vehicles as they conduct routine campus grounds tasks such as watering and weeding. Additionally, we have optimized landscape/grounds staff size through better lawn maintenance scheduling and equipment selection.
  11. **Cash Management:** We have centralized our cash management and check writing processes through the State of Kansas.
  12. **Transactional activity processing:** Transactional activity processing through the state allows us to be part of the state financial reports, eliminating the need to have an external audit of our independent annual reports.
  13. **Processing of student refunds:** We are pursuing approvals to require all student refunds to be processed electronically. Currently 50% of our transactions are processed electronically.
  14. **Business Procurement Card Usage:** There are large scale efforts to increase business procurement card (BPC) usage. We are increasing training, increasing card issuances and card limits, consolidating card types, and analyzing all purchases as they come through the system. For transactions appropriate for BPC usage, we are trying to educate the campus on the benefits of using the card.
  15. **Information Technology Changes and new CIO:** We are in the process of searching for a new Chief Information Officer. Once on campus, this person will have input and likely recommendations to consolidate the structure of our information technology services, and will oversee the implementation of the new structure.

*I. Outsourcing non-academic functions*

1. **Current Outsourcing:** KSU has already outsourced its bookstore, K-State Student Union food service, and vending services.
2. **Areas to examine for future outsourcing:** There are many other areas that we will be exploring relative to outsourcing. It may not be possible to outsource some of these services in the short term, and for others, it may not prove to be economically feasible. The possible services include:
  - i. Grounds Maintenance
  - ii. Custodial Services
  - iii. Laundry Services
  - iv. On-campus Post Office
  - v. Printing
  - vi. Motor Pool
  - vii. Housing Food Service
  - viii. Telecommunications

3. **Current use of on-call contractors:** K-State Facilities already uses many on-call contractors. Currently, over \$1 million of the \$5.5 million operating budget for Facilities and Facilities Planning is used for on-call service contracts.

**J. *Reducing energy costs, improving recycling, and other similar ideas***

1. **Budget Initiative:** The Budget Initiative has brought forth many ideas related to energy conservation and recycling. We will be examining all of these ideas for feasibility and impact, and implementing those that are deemed appropriate.
2. **Current Energy Conservation Projects:**
  - i. K-State has entered into an energy conservation project with Johnson Controls to replace well systems and lighting. The annual savings will be approximately \$400K (bond financed).
  - ii. Initiatives to reduce energy consumption are being pursued in two major areas. The first involves engaging an Energy Services Company to examine a number of potential infrastructure investments that focus on saving energy. The second involves developing an in-house behavior-based energy saving program that will be funded from energy savings.
3. **Paper Conservation Projects:**
  - i. **Electronic Course Catalogs:** We have replaced our printed undergraduate and graduate course catalogs with electronic versions and no longer publish hard copies. The electronic catalogs, which operate in a secure hosted environment at an off-campus site, provide timely information in a user-oriented, searchable format. The electronic versions replace a 300 page undergraduate catalog and a 200 page graduate catalog that in the past had been revised and reprinted on a two-year cycle. The printed catalogs had been provided to entering students, transfer students, faculty, and university departments at no cost. In converting to the electronic catalog, we are saving more than 7 million pages of paper every two years.
  - ii. **Converting Paper Documents to Electronic Form:** There is an on-going effort to move space-consuming, difficult-to-access paper documents to an electronic environment. More than 2.5 million paper documents are now stored securely in electronic form for the Office of Student Financial Aid, the Registrar's Office, the Human Resources Department, K-State Salina administrative offices, Environmental Health and Safety, Academic Services and the Graduate School.
4. **Recycling:**
  - i. K-State has partnered with the City of Manhattan (using City and University funds) to establish a recycling center on campus.
  - ii. K-State manages a website that advertises used equipment (e.g., computers, printers, furniture) for use by the members of the university community.

- iii. Some suggestions from the Budget Initiative in this area include developing a within-university property transfer or sale mechanism or holding a Campus-wide garage sale of used items.
- iv. K-State has a desk-side recycling program that resulted in recycling 998 tons of basic materials last year – about 16% of our waste stream. We also recycle electronic waste. Last year we collected 43 tons of computers and related equipment that were inoperable or antiquated. We also recycled almost 5 tons of rechargeable and non-rechargeable batteries, 2 tons of ballasts and more than 10,000 fluorescent, compact fluorescent and incandescent bulbs. Additionally, we recycled more than a ton of silver-containing waste.
- v. Housing and Dining Services is an active recycler and has an *All Taste...No Waste* campaign to reduce the amount of excess food that ultimately ends up in the waste stream.

### **Conclusions**

We appreciate the opportunity to provide an update to the Kansas Board of Regents on the steps K-State has taken and intends to pursue relative to the LPA Efficiency study. We believe that we are making important progress in enhancing the efficiency of our academic programs and administrative units.