

## STRONGER by DEGREES



# MEETING AGENDA

Friday, February 13, 2015  
Conference Room A

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### Members, Council on Postsecondary Education

Glenn D. Denton, Paducah	Carolyn Ridley, Bowling Green
Maryanne Honeycutt Elliott, Louisville	Robert H. Staat, ( <i>faculty member</i> )
Joe E. Ellis, Benton	Arnold Taylor, Edgewood
Dan E. Flanagan, Campbellsville ( <i>vice chair</i> )	Joshua Tunning, Newport ( <i>student member</i> )
Joe Graviss, Versailles	Joseph B. Wise, Louisville
Dennis M. Jackson, Paducah	Sherrill B. Zimmerman, Prospect
Pam Miller, Lexington ( <i>chair</i> )	Terry Holliday, Commissioner of Education ( <i>ex officio, nonvoting</i> )
Donna Moore, Lexington	
Marcia Milby Ridings, London	

Robert L. King, CPE President

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The Council on Postsecondary Education is Kentucky's statewide postsecondary and adult education coordinating agency charged with leading the reform efforts envisioned by state policy leaders in the *Kentucky Postsecondary Education Improvement Act of 1997*. The Council does not discriminate on the basis of race, color, national origin, sex, religion, age, or disability in employment or the provision of services, and provides, upon request, reasonable accommodation, including auxiliary aids and services necessary to afford individuals with disabilities an equal opportunity to participate in all programs and activities.

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Friday, February 13, 2015  
11:30 AM  
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Next meeting - April 16-17, 2015, Morehead State University	

Council on Postsecondary Education  
February 13, 2015

## **Election of CPE Chair and Vice Chair**

The Nominating Committee will present the slate of officers to serve until January 31, 2016, for consideration by the full Council.

Staff preparation by Heather Bingham

**MINUTES**  
**Council on Postsecondary Education**  
**November 21, 2014**

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The Council on Postsecondary Education met Friday, November 21, 2014, at 9:00 a.m., ET, at Bluegrass Community and Technical College in Lexington, Kentucky. Chair Pam Miller presided.

- WELCOME** Ms. Miller called the meeting to order and welcomed everyone. She thanked President Augusta Julian and Bluegrass Community and Technical College for hosting the meeting. President Julian gave a few words of welcome. She also recognized KCTCS President Michael M. McCall, who gave a few words of welcome as well.
- ROLL CALL** The following members were present: Joe Ellis, Maryanne Elliott, Dan Flanagan, Joe Graviss, Dennis Jackson, Pam Miller, Donna Moore, Marcia Ridings, Carolyn Ridley, Robert Staat, Arnold Taylor, Joshua Tunning, and Sherrill Zimmerman. Glenn Denton, Terry Holliday, and Joe Wise did not attend.
- RESOLUTIONS** The Council presented four resolutions to: (1) Michael B. McCall, president of Kentucky Community and Technical College System, (2) Linda Linville, CPE's Senior Policy Advisor for Research, Development, and Health Initiatives, (3) Allen Lind, CPE's Vice President for Innovation and E-Learning, and (4) Yvonne Lovell, CPE's Executive Director of Gear-UP Kentucky. Each was recognized for his or her commitment to postsecondary education and the Commonwealth of Kentucky.
- APPROVAL OF MINUTES** The minutes of the September 16, 2014 meeting were approved as distributed.
- EXECUTIVE COMMITTEE REPORT** Ms. Miller discussed the FY 2013-14 audit results presented at the Executive Committee meeting on November 21, 2014. Due to the complexity and amount of funds flowing through the agency's budget, the Council annually contracts with an independent auditor to compile financial statements and perform the agency's financial audit. This audit is not statutorily required, but it serves the Council well to have an outside entity review Council finances, internal controls, and regulation and grant compliance. Blue and Company LLP, a certified public accounting agency in Lexington, conducted the audit this year.
- For the year ending June 30, 2014, the auditors issued an unmodified opinion, stating that the Council's financial statements present fairly, in all material respects, the financial position of the governmental activities, each major fund, and the aggregate remaining fund information of the agency. The respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America. In addition, the expenditures of federal awards and supplementary information are fairly stated in all material respects in relation to the basic financial statements as a whole. The firm also noted that it did not identify any deficiencies in internal control that they consider to be material weaknesses.

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MOTION: Ms. Moore moved that the Council accept the audit results. Mr. Jackson seconded the motion.

VOTE: The motion passed.

CPE PRESIDENT'S  
REPORT TO THE  
COUNCIL

A written report from President King was provided in the agenda book. Highlights of his report included Ms. Miller's induction into the Public Service Hall of Fame, and an update on the application processes of the Vanguard Project and how that project's efforts coincide with those currently being made by the Kentucky Department of Education.

COMMISSIONER OF  
EDUCATION REPORT

Commissioner Holliday was not available to attend the November 21 meeting. He provided a written report in the agenda book.

PERFORMANCE  
PRESENTATION –  
KENTUCKY STATE  
UNIVERSITY

Dr. Raymond Burse, KSU president, Steve Mason, chief of staff, and Beverly Downing, interim provost and vice president for academic affairs, provided the Council with an update on KSU's progress toward achieving its performance goals as set forth in the state's Strategic Agenda. Dr. Burse emphasized KSU's recent reviews and changes of internal processes and efficiencies to improve the functions at KSU. Dr. Burse also answered questions in regards to KSU's nursing program, the school's attempts to rectify KSU's low graduation and retention rates, and the faculties concerns regarding employment and tenure. After the presentation, Mr. Graviss and Ms. Zimmerman commented Dr. Burse on the positive publicity that KSU has received since he took the presidency, and Ms. Miller commended Dr. Burse on his courage to make hard decisions for the betterment of the university.

PERFORMANCE  
PRESENTATION –  
MURRAY STATE  
UNIVERSITY

Dr. Bob Davies, MuSU president, and Dr. Jay Morgan, provost, provided the Council with an update on MuSU's progress toward achieving its performance goals as set forth in the state's Strategic Agenda. Dr. Davies mentioned that MuSU's graduation rates will most likely remain in decline over the next academic year due to the admission methods employed five years prior. He stated that admission standards haven't changed since that time; however the university is focusing its efforts on keeping those underprepared students successful and enrolled. President King also praised Dr. Davies on MuSU's new Strategic Agenda planning process.

PERFORMANCE  
PRESENTATION –  
KENTUCKY  
COMMUNITY AND  
TECHNICAL COLLEGE  
SYSTEM

Dr. Michael McCall, KCTCS president, and Dr. Jay Box, chancellor, provided the Council with an update on KCTCS's progress toward achieving its performance goals as set forth in the state's Strategic Agenda. After the presentation, questions were answered regarding KCTCS's efforts to ensure its graduates are ready for the workplace, KCTCS's outreach services with hard-to-reach students, and what KCTCS is doing to help competency-based graduates transfer to four-year institutions. Dr. Box almost mentioned that his term as the new KCTCS president will take effect on January 16, 2015, and he looks forward to working with the Council in that role.

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**ACTION: CAPITAL  
PROJECTS – UofL and  
MoSU**

The Council on Postsecondary Education has statutory responsibility to review and approve public college and university capital projects costing \$600,000 or more and equipment items costing \$200,000 or more, regardless of fund source, that have been approved by an institution's governing board. During the interim, capital projects are evaluated under KRS 45.760(5), (7) and KRS 45.763.

Mr. Shaun McKiernan, CPE's senior associate of budget and finance, presented the staff recommendation that the council approve: (1) a request by the University of Louisville to authorize the construction of an Athletics Maintenance Facility, funded by the UofL Athletic Association, with a project scope of \$1,250,000; and (2) a project at Morehead State University titled Construct Volleyball Facility, funded with private funds, with a project scope of \$1,400,000. Mr. Taylor asked for clarification that both projects were being paid for solely by private funds, in which Mr. McKiernan answered that they were.

**MOTION:** Mr. Flanagan moved that Council approve both capital projects as presented. Ms. Zimmerman seconded the motion.

**VOTE:** The motion passed.

**ACTION: IMPROVING  
EDUCATOR QUALITY  
STATE GRANT  
PROGRAM**

The Improving Educator Quality State Grant Program awards grants to partnerships that deliver research-based professional development programs to P-12 teachers. To be eligible, a partnership must include a postsecondary institution's school of arts and sciences and its teacher preparation program, as well as at least one high-need local school district. The program enables states to fund training for teachers and administrators in any core academic subject.

Ms. Kathy Garrett, CPE's associate of academic affairs, presented the staff recommendation that the Council on Postsecondary Education award federal *No Child Left Behind*, Title II, Part A, funds in the amount of \$944,721 for January 1, 2015 through June 30, 2016 to the following seven projects:

1. *Integrating Engineering in the Sciences (IES)* (University of Kentucky): \$130,000 – Year 2
2. *Project-Based Investigations on Improving Water Quality in the Kentucky River Watershed* (University of Kentucky): \$130,000 – Year 2
3. *Enriching Science Learning through Simulations and Interdisciplinary Problem-solving* (Murray State University): \$99,000 – Year 2
4. *Designing Mathematics and Science Project-Based Environments: Spanning Astronomical and Atomic Spaces* (University of Kentucky): \$148,491
5. *Engineering Authentic Experiences in the Next Generation Science Classroom* (Morehead State University): \$149,999

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6. *FLIP-EKY: Flipping Mathematics & Science Classrooms in Eastern Kentucky* (Northern Kentucky University): \$137,292
7. *STEM PRIDE, Partnering with Research, Industries to Develop (STEM) Educators for College and Career Readiness* (University of Kentucky): \$149,939

Mr. Taylor asked if these funds would still be available if the 2014-16 budget allocation changes. Ms. Garrett stated that the funds for these grants are guaranteed and confirmed for the next eighteen months.

MOTION: Mr. Graviss moved that the Council approve the motion as presented. Dr. Staat seconded the motion.

VOTE: The motion passed.

ACTION: NEW  
ACADEMIC PROGRAMS

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions.

Dr. Paul Blankenship, CPE's senior associate of academic affairs, presented the staff recommendation that the Council approve the Master of Science in Nonprofit Leadership Studies from Murray State University, the Master of Science in Environmental and Occupational Health Science from Western Kentucky University, and the Doctor of Psychology from Western Kentucky University. Mr. Graviss asked for clarification that all three degrees were not duplicated at other institutions, and Dr. Blankenship stated they were not.

MOTION: Mr. Graviss moved that the Council approve the new academic programs as presented. Ms. Moore seconded the motion.

VOTE: The motion passed.

2012-13  
ACCOUNTABILITY  
REPORT

The Council submits an annual Accountability Report to the Office of the Governor and the Legislative Research Commission as directed by KRS 164.020(3). The purpose of the report is to inform policymakers and the public of the system-wide progress made in advancing the goals of "Stronger by Degrees: A Strategic Agenda for Kentucky Postsecondary and Adult Education" and the *Kentucky Postsecondary Education Improvement Act of 1997* (HB 1).

Ms. Lee Nimocks, CPE's vice president of policy, planning and operations, and Ms. Melissa Young, CPE's director of grants development and special projects, presented the 2012-13 Accountability Report to the Council. Highlights of the report include the following:

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- Kentucky made impressive gains in the area of college readiness, thanks to an aggressive statewide effort to establish a common definition of readiness and improve the delivery of developmental and bridge programming. Kentucky is on track to reach the college readiness target established by Senate Bill 1 (2009).
- Kentucky continues to experience strong growth in degrees and credentials conferred. The system has achieved its targets for total degrees and credentials and graduate degrees, and is on track to meet associate and bachelor's degree targets.
- Kentucky continues to lose ground on metrics related to adequate funding and affordability.
- Kentucky is steadily improving the educational attainment of younger workers (25-44), an important indicator of the state's economic competitiveness.

Following the overview, questions were answered regarding the declining pool of eligible GED students and the cost of the GED modules, both of which are a continuing focus for Kentucky Adult Education.

2016-20 STRATEGIC  
AGENDA – INITIAL  
DISCUSSION

The *Kentucky Postsecondary Education Improvement Act of 1997* (House Bill 1) requires the Council to review its strategic agenda every four years and the strategic implementation plan every two years. The purpose of the strategic agenda is to "identify specific short-term objectives in furtherance of the long-term goals" established in HB 1. The current strategic (public) agenda covers the period 2011-15 and is called *Stronger by Degrees: A Strategic Agenda for Postsecondary and Adult Education*. It is focused on four policy areas: (1) college readiness, (2) student success, (3) research, economic and community development, and (4) efficiency and innovation.

Ms. Lee Nimocks and Ms. Melissa Young gave the Council an update on the initial planning discussions related to the 2016-20 Strategic Agenda. The Council staff has begun soliciting informal feedback from campus and key policy leaders on the strengths and weaknesses of the Council's current strategic agenda. That work will continue through the end of the year. Committees comprised of Council members, institutional representatives and key stakeholders will be established and begin meeting early in 2015 to create a more detailed development process and timeline.

Mr. Graviss asked if key policy workers will be involved in the planning process. Ms. Nimocks answered yes, especially in the areas of economic and workforce development.

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Following the agenda presentation, Ms. Miller appointed six members of the Council to the 2016-20 Strategic Agenda Steering Committee: Sherrill Zimmerman (chair), Arnold Taylor, Dan Flanagan, Maryanne Elliott, Joe Graviss, and Donna Moore.

**DUAL CREDIT  
PROGRAMS**

Ms. Sue Cain, CPE's senior policy advisor of College Readiness, Developmental Education, and Student Success, presented an update on student participation in dual enrollment courses, the implementation of the Statewide Dual Credit Policy, and the work of the Dual Credit Work Team (comprised of members from CPE, the Kentucky Department of Education, and the Kentucky Higher Education Assistance Authority, among others) to enhance dual credit course opportunities for Kentucky students.

Dual credit courses are college-level courses that simultaneously earn both secondary and transcribed college credit that count toward a postsecondary degree or credential. They include academic courses as well as technical courses and can vary in three dimensions – where they are taught, by whom, and when they are taught. The opportunities presented by dual credit expansion increase a student's odds of enrolling in and completing college credentials and degrees. Both the secondary and postsecondary systems in Kentucky strongly support the use of dual credit as a college completion strategy.

Ms. Elliott asked how high school students can participate in dual credit courses while still meeting their high school course requirements. Ms. Cain answered that, in most cases, students use their high school elective time slots to enroll in dual credit courses.

**FUNDING MODEL  
STEERING COMMITTEE  
UPDATE**

President King gave a brief update on the work of the Funding Model Steering Committee and Funding Model Work Group. A full report was provided in the agenda.

**COMMITTEE ON  
EQUAL  
OPPORTUNITIES  
REPORT**

Dr. Rana Johnson, CPE's chief diversity officer, provided a report from the Committee on Equal Opportunities. Highlights of the report were the 2015 CEO meeting calendar, the 2014 Diversity Plan Assessment Reports, and the SREB Doctoral Scholars Program. Two SREB Doctoral Scholars, Aisha Skinner and Michael Mejia, provided positive remarks on their experiences at the 2014 SREB Institute on Teaching and Mentoring. The institute is designed for scholars currently supported by the Kentucky Doctoral Scholars Program and the goal is to address the shortage of minority faculty in college classrooms and labs around the nation.

**STATE  
AUTHORIZATION  
RECIPROCIY  
AGREEMENT (SARA)**

Mr. Travis Powell, CPE's general counsel, and Ms. Sarah Levy, CPE's director of licensure, presented an informational report on the State Authorization Reciprocity Agreement (SARA) and the potential impact for Kentucky.

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SARA is a voluntary agreement among member states, districts, and territories that provides for interstate offering of postsecondary distance education courses and programs in member states and fulfills the requirement of state authorization. Activities such as offering distance education, advertising through any medium, faculty residence, proctored exams, and limited field experiences would be permitted in SARA member states for institutions that join. States may apply for membership in SARA through its regional compact (i.e. SREB) and must be authorized by the laws of their state to do so. Institutions may join if they are accredited by an accreditor approved by the U.S. Department of Education and maintain a federal financial responsibility rating of 1.0 or greater (only applicable to private institutions). As of November 21, 2014, seventeen states participate in SARA. If the Council wanted Kentucky to participate in SARA, it could only do so through legislative action.

COMMITTEE  
APPOINTMENTS

Ms. Miller appointed Joshua Tunning to the Committee on Equal Opportunities, to serve through the end of his term on the Council, June 2015. This committee advises the Council on strategies for achieving the equal opportunity and institutional performance objectives.

Ms. Miller appointed Donna Moore (chair), Marcia Ridings, and Joe Wise to the 2015 Nominating Committee. This committee will present nominations for Council chair and vice chair at the February 13, 2015 meeting.

REPORTS FROM  
INSTITUTIONS

Reports from the institutions were provided in the agenda book.

NEXT MEETING

The next Council meeting is February 13, 2015, at the CPE Offices in Frankfort, Kentucky. The CPE Retreat will occur on February 12, 2015.

ADJOURNMENT

The meeting adjourned at 1:45 p.m., ET.

  
Robert L. King  
CPE President

  
Heather M. Bingham  
Associate, Executive Relations

## President's Report

### News related to College Readiness & Student Success

#### Multi-State Collaborative Receives Grant

The Multi-State Collaborative on Military Credit (MCMC), an initiative assisting Midwestern states in advancing higher education, received a \$900,000 grant from Lumina to support the group's work toward effectively translating military experience into college credit. Kentucky is one of 13 states participating in the effort.



#### Transfer Staff Training to Boost System Efforts

Joe Cuseo, Professor Emeritus of Psychology at Marymount College and featured speaker at the 2012 and 2013 Student Success Summits, conducted an all-day workshop last month for institution staff on transfer student orientation and success initiatives. Approximately 140 registered for the workshop.

#### Mark Your Calendar for Upcoming Events

##### *Student Success Summit in March*

Planning is underway for the next Student Success Summit set March 30-31 at the Louisville Marriott East. The theme for the summit is "Learning for the 21st century: Higher Education's Value Commitment." Confirmed speakers include President Mike Benson, Eastern Kentucky University; Debra Humphreys, Association of American Colleges and Universities (AAC&U); Jose Bowen, Goucher College; Ray Angle, University of North Carolina; Kati Lewis, Salt Lake Community College; and Tracy Slagter, University of Wisconsin Oshkosh.



##### *Transfer Madness in March*

The Council, in partnership with KCTCS, will continue its sponsorship of Transfer Madness, the nation's only statewide online transfer fair, on March 26. Now in its third year, Transfer Madness connects students from the 16 colleges of the Kentucky Community and Technical College System to advisors at all the public four-year institutions and many independents. Students can chat live with admissions representatives at the universities of their choice, download e-brochures, see how their credits will transfer, and learn about scholarships.

##### *Kentucky Pedagogicon in May*

The 2015 Kentucky Pedagogicon, a joint effort of the Council, the Faculty Development Workgroup and Eastern Kentucky University, will be held May 22 at Eastern Kentucky University. Pedagogicon is a one-day conference promoting highly effective teaching

methods. This year’s focus will be on “Closing the Achievement Gap through Scholarly and Creative Teaching.”

### 15 to Finish Campaign Tops \$1 Million in ROI

Since July, the 15 to Finish campaign ads aired 50,000 times on radio and more than 3,100 times on TV, exceeding \$1 million in media placements. The public service ads encourage students to complete 15 credits a semester, or 30 a year, to graduate on time. The ads are running through Gear Up Kentucky’s contract through the Kentucky Broadcasters Association as part of KnowHow2GoKy.org.



15-to-Finish Media Placements	TV		Radio spots	Value
	spots	Value		
<b>July-14</b>	454	\$30,760	6,939	\$129,919
<b>August-14</b>	871	\$69,540	10,450	\$175,532
<b>Sep-14</b>	832	\$38,820	9,840	\$176,827
<b>Oct-14</b>	352	\$23,920	9,727	\$166,513
<b>Nov-14</b>	636	\$41,875	11,827	\$203,077
<b>TOTAL YTD</b>	<b>3,145</b>	<b>\$204,915</b>	<b>48,783</b>	<b>\$851,868</b>

### GEARUP KY Regional Sustainability Summits

Gear Up Kentucky (GUK) will host five Regional Sustainability Summits via ITV network this month as part of GUK’s School Improvement Services. The summits will provide technical assistance to middle and high school leadership teams consisting of principals, school counselors and a district-level instructional leader. The goals of the one-day summits include:



- Gain a deeper understanding of instructional patterns and how they contribute to college readiness.
- Review all relevant data in order to refine GUK School Sustainability Plans and align these plans with the Professional Growth and Effectiveness System (PGES) and the Comprehensive District and School Improvement Plans.
- Embed an emphasis on rigor, integration of soft skills and parent engagement in Sustainability Plans.
- Expand understanding of GUK strategies and services.

With support of professional facilitators and local GUK staff, summits will be held simultaneously at Morehead State University, Murray State University, Western Kentucky University Glasgow Campus, the Collaborative for Teaching and Learning, Louisville, and CPE offices. For more info visit: [http://gearupky.org/about/services/schoolimprovement/.](http://gearupky.org/about/services/schoolimprovement/)

## News related to Research, Economic, and Community Development & Efficiency and Innovation

### **Commonwealth College Programs Recognized by U.S. Department of Education**

Two Commonwealth College consortium universities, University of Louisville and Western Kentucky University, received invitations from the U.S. Department of Education to participate in a consortium of competency-based education (CBE) experimental sites. The 40-member consortium allows waivers from certain rules that govern federal financial aid for competency-based programs. UofL will offer the Bachelor of Science in Organizational Leadership and Learning (emphasis in healthcare leadership). WKU will offer the Bachelor of Science in Advanced Manufacturing. The degree programs, developed in collaboration with KCTCS Learn on Demand, are part of the Commonwealth College degree offerings that will debut later this year.

### Staff Notes

Dr. Aaron Thompson and Dr. Rana Johnson will participate in the February Black History Month as Guest Readers at the Booker T. Washington Primary Academy in Lexington. Dr. Thompson and Dr. Johnson will read to kindergarten students to promote higher education, and to assist in closing the achievement gap.

Dr. Thompson also presented "From Appalachia to Academia: An African American Educator's Journey to Educational Attainment" to the Paducah Chamber of Commerce at its February meeting focusing on Black History Month.

Sue Patrick, director of communications and marketing, will co-present Kentucky's "Transfer Madness," the nation's only statewide, online transfer fair, at the Council for Advancement and Support of Education (CASE) District III annual conference later this month.

Former Council student member Glenn Means received the 2014 Thirty Under 30 award from Pi Kappa Phi fraternity for his work in raising awareness for equity and education. The award recognizes young alumni for their achievements after graduation. Congratulations to Glenn!

## Commissioner Terry Holliday's Report

### Kentucky Rising

On January 14, 2015, the agency heads of the Kentucky Department of Education, Council on Postsecondary Education and Education Standards Board and the chairs and vice chairs of their boards met in Frankfort to discuss the *Kentucky Rising* initiative.

The goal of *Kentucky Rising* is for Kentucky to have a workforce that is among the world's most highly-skilled, globally-aware, and globally-competent. (See attached fact sheet for description.) Staff from the National Center for Education and The Economy, who are providing support for the initiative, presented the most current information on this new concept.

It was agreed on by the participants for each agency head and chair and vice chair of the appropriate board to take a resolution lending support to *Kentucky Rising* back to the appropriate board's next meeting for consideration. You will be considering this resolution as part of the February meeting and I recommend you support it.

### Four-Year ESEA Waiver Renewal

Kentucky's ESEA waiver expires at the end of the 2014-15 school year and the U.S. Department of Education (USED) has offered Kentucky the opportunity to be considered for a four-year renewal through the revision of its waiver document. We need renewal of the waiver in order to continue the Unbridled Learning system for both state and federal accountability purposes.

The draft redlined version, as required by USED, of the four-year waiver renewal document was e-mailed out to a variety of education constituents on January 21. Additionally, on January 22, it was posted on the department's website and a press release went out offering the opportunity to comment. The feedback was due to the department by close of business on January 28 and after final edits are made to the document, it will be submitted by the January 30 deadline to USED.

A team of KDE staff who have worked on the waiver renewal and I are scheduled to meet with USED staff on March 4 in Washington, DC to answer their questions about our renewal submission. This is a meeting required by USED for those states requesting the four-year renewal.

**February 4, 2015 Kentucky Board of Education Meeting**

Several important topics will be covered at the February 4, 2015 Kentucky Board of Education meeting. Among these are consideration of approval of changes to the accountability regulations, review of Kentucky's Plan to Close Achievement Gaps Through Novice Reduction, an update on AdvanceKentucky, and an update on the performance of Priority Schools. These items as well as all of the materials for the meeting can be found at <https://portal.ksba.org/public/Meeting.aspx?PublicAgencyID=4388&PublicMeetingID=12794&AgencyTypeID=1>.

*Next Kentucky Board of Education meeting: April 1, 2015*

## Kentucky Rising Fact Sheet

**What is Kentucky Rising?** KY Rising is a statewide strategic plan focused on a “cradle” to “career” model to improve the economy of the Commonwealth and the prosperity of citizens of the Commonwealth.

**What is the goal?** Kentucky will have a workforce that is among the world’s most highly skilled, globally aware, and globally competent.

**What is the method?** KY Rising will involve key stakeholders in a working group to develop the statewide cradle to career strategic plan. The strategic plan will address the following components:

1. provide strong supports for children and their families before students even arrive at school;
2. provide more resources for at-risk students than for others;
3. develop world class, highly coherent instructional systems;
4. create clear gateways for students through the system, set to global standards, with no dead ends;
5. assure an abundant supply of highly effective teachers;
6. redesign schools to treat teachers as professionals, with incentives and support to continuously improve their practice and the performance of their students;
7. create an highly effective system of career and vocational education and training, built on high academic standards, with pathways both to work and to further education;
8. create a leadership development system that develops leaders at all levels to manage such systems effectively; and,
9. institute a governance system that has the authority and legitimacy to develop coherent and powerful policies and is capable of implementing them at scale.

**Which groups will be involved in the development of the KY Rising strategic plan?** Governor’s Early Childhood Advisory Council, K-12, community colleges and public/private universities, Education Professional Standards Board, KY Chamber of Commerce, Economic Development, Labor Cabinet, Workforce Cabinet, Unbridled Learning Guiding Coalition, National Governors Association Career Pathways planning team, other stakeholder groups (state, national, and international) based on involvement and leadership with the 9 components.

**What is the timeline?** Completion of a needs assessment and gap analysis by March, 2015 and development of the state plan by August, 2015. Following development of the state strategic plan, agencies and departments will develop specific plans to implement the key strategies from KY Rising that are relevant to their agency or department.

**How will this be funded?** Planning funds will be provided through foundation funds. Once KY Rising plan is established, implementation funds will be sought through a number of federal grant opportunities, foundation grants and state funds.

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## Kentucky Rising Resolution

**ACTION: The staff recommends that the Council adopt the resolution to develop and implement a unified strategic plan for the joint initiative, Kentucky Rising.**

On January 14, 2015, representatives from the Kentucky Board of Education, Council on Postsecondary Education, and Education Professional Standards Board met in a special meeting to discuss a new joint initiative called Kentucky Rising. If implemented, Kentucky Rising would establish criteria for a high school diploma, certificate, or endorsement that certifies a graduate meets the employment requirements of foreign industries that are directly investing in the state and industries that are creating trade with other countries. By ensuring Kentucky's workforce is an asset for global economic development, Kentucky can continue to create jobs for residents and grow the state's economy.

As part of that meeting, the attached resolution to develop and implement a unified strategic plan for Kentucky Rising was presented for consideration of adoption by each of the participating representative's boards.

Staff preparation by Heather Bingham

**RESOLUTION ON KENTUCKY RISING SUPPORTED BY THE  
KENTUCKY BOARD OF EDUCATION, COUNCIL ON POSTSECONDARY EDUCATION AND  
EDUCATION PROFESSIONAL STANDARDS BOARD  
COMMONWEALTH OF KENTUCKY**

- Whereas, The Kentucky Board of Education, Council on Postsecondary Education and Education Professional Standards Board have successfully planned and implemented a unified college- and career-readiness plan that has resulted in improvement of the college- and career-readiness rate of high school graduates from 34 percent to 62 percent; and
- Whereas, The challenge of education is to prepare students for the world into which they are graduating, whether it be to enter and succeed in college, the workforce or the military, as well as to participate actively in civic life; and
- Whereas, Citizenship is not just about making informed choices in local, state and national elections, but in having the knowledge, understanding, tools, and propensity to effectively engage in global commerce, issues and interests; and
- Whereas, A strong, integrated system of education enhances not only individual opportunity, but the economic viability of local communities and the quality of life of their residents; and
- Whereas, Fully 21 percent of jobs in the state are tied to international trade. Kentucky exports have reached \$25.3 billion and now travel to 198 countries. Exports make up 13 percent of the state’s gross domestic product (GDP), and in 2013, Kentucky had the second highest growth in exports nationally;
- Whereas, 410 foreign-owned companies are operating and investing in Kentucky and Kentucky markets are diversifying to include not only automobiles and the legacy industry of bourbon distilling, but also hair and skin care companies, foods, and pharmaceuticals; and
- Whereas, The Kentucky Board of Education shares a common goal to establish Kentucky as a world leader in the high, value-added international trade of goods and services with broadly shared prosperity for its residents.

NOW THEREFORE, be it resolved that the Council on Postsecondary Education commits to the development and implementation of a unified strategic plan titled Kentucky Rising, the purpose of which is to create a Kentucky workforce and citizenry that will be globally aware and globally competent, and considered among the world’s best trained and best educated.

Done in the city of Frankfort, this 13th day of February, in the  
year Two Thousand and Fifteen

\_\_\_\_\_, Chair

\_\_\_\_\_, President

Council on Postsecondary Education  
February 13, 2015

## New Academic Programs University of Kentucky and Western Kentucky University

**ACTION:** The staff recommends that the Council approve the Bachelor of Arts in Modern and Classical Languages, Literature and Cultures from the University of Kentucky and the Master of Fine Arts in Creative Writing from Western Kentucky University.

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions.

### University of Kentucky

#### Bachelor of Arts in Modern and Classical Languages, Literature and Cultures (CIP Code: 16.0199)

The proposed Bachelor of Arts in Modern and Classical Languages, Literature and Cultures will replace the individual language majors currently offered at the university. This consolidation of programs will increase academic productivity by reducing time spent on administering separate programs. Additionally, the new program will go beyond the traditional concepts of a language program, incorporating culture, history, and contemporary trends. These curricular changes will address the standards set by the Modern Languages Association for rethinking world language education for the 21<sup>st</sup> century.

### Western Kentucky University

#### Master of Fine Arts in Creative Writing (CIP Code: 23.1302)

The proposed Master of Fine Arts in Creative Writing distinguishes itself by being a full-residency program with a focus on employment after graduation. Along with standard creative writing workshops, students will learn to apply literary techniques to their own work and will take thesis courses, beginning in their first year, to allow for careful planning to produce a higher quality manuscript. To prepare for employment, all students will be required to tutor in the writing center, take a course in the pedagogy of composition and rhetoric, and teach undergraduate classes before graduation. They will be required to complete course work in a secondary concentration that is career-related and will complete two internships related to creative writing and/or their career interest.

Staff preparation by Paul Blankenship

## **Capital Projects Kentucky State University, Morehead State University, and Western Kentucky University**

**ACTION:** The staff recommends that the Council approve the following requests for interim authorization:

- 1. Kentucky State University's project "Acquire Enterprise Resource Planning Information Technology System," funded with institutional and federal funds, with a project scope of \$2,600,000;**
- 2. Morehead State University's project "Construct Food Service, Retail Space and Parking Structure," funded with auxiliary services funds and private funds, with a project scope of \$17,600,000; and**
- 3. Western Kentucky University's project "Confucius Institute Facility," funded with private funds, with a project scope of \$2,300,000.**

The Council on Postsecondary Education has statutory responsibility to review and approve public college and university capital projects costing \$600,000 or more and equipment items costing \$200,000 or more, regardless of fund source, that have been approved by an institution's governing board. During the interim, capital projects are evaluated under KRS 45.760(5), (7) and KRS 45.763. The Kentucky State University, Morehead State University, and Western Kentucky University projects meet the requirement of KRS 45.760(5), (7) in that the source of funds for these projects is at least 50 percent federal or private funds.

The process for a project that exceeds the \$600,000 capital construction and \$200,000 equipment purchase thresholds is as follows:

- The project must be approved by an institution's board of trustees or board of regents.
- The project must be submitted to the Council for review and action.
- If approved by the Council, projects at EKU, KCTCS, KSU, and MoSU are submitted to the secretary of the Finance and Administration Cabinet for review and action, and subsequently submitted by the secretary to the Capital Projects and Bond Oversight Committee for review.
- If approved by the Council, projects at MuSU, NKU, UK, UofL, and WKU are submitted by the institution to the Capital Projects and Bond Oversight Committee for review, and a copy is provided to the Finance and Administration Cabinet as information.
- Following review and action by the appropriate agencies, the project may be initiated by the requesting institution.

Because these projects were not included in the enacted 2014-16 biennial budget, interim action is required to allow the universities to move forward with the projects. The universities confirm that the funds are available for their project's implementation. The two construction projects (MoSU and WKU) will be implemented under the prevailing wage law.

All three projects meet the requirement of KRS 45.760(7) in that the source of funds for each project is at least 50 percent federal or private funds. The universities do not anticipate debt financing any portion of these projects; therefore, the provisions of KRS 45.763 do not apply. Following Council action, staff will notify the presidents of Kentucky State University, Morehead State University, and Western Kentucky University, the secretary of the Finance and Administration Cabinet, and the Capital Projects and Bond Oversight Committee of the Council's recommendation concerning these projects.

#### Kentucky State University

Kentucky State University requests authorization for the acquisition of a \$2,600,000 Enterprise Resource Planning Information Technology System. The new system will provide greater efficiency and will more effectively serve students and help manage operations. Maintenance of the system will come from the university's operating budget. The Board of Regents approved this project at their meeting on January 23, 2015. The system should be operational by November 2016.

#### Morehead State University

Morehead State University requests authorization for the construction of a \$17,600,000 capital project which will provide food service and retail space and a parking structure. The university's food service vendor, ARAMARK, will provide \$10,000,000 for the project. The remaining funds will come from cash reserves generated from parking fee revenue and other auxiliary revenues (housing and dining). The facility will provide 35,000 sq. ft. of student dining space and 400 student parking spaces in the heart of MoSU's residential campus. The Board requested that university staff seek interim authorization of this project at their meeting on June 5, 2014. The facility should be completed by Fall 2016.

#### Western Kentucky University

Western Kentucky University requests authorization for the construction of a \$2,300,000 capital project for the Confucius Institute. The facility will provide 7,000 to 8,000 sq. ft. of classroom, office, gallery, teaching kitchen and multi-use space and will be adjacent to the Honors College and International Center. The Board of Regents approved the project at their meeting on January 23, 2015. The facility should be completed by August 2016.

Staff preparation by Shaun McKiernan and Sherron Jackson

**Amendment to 13 KAR 2:045 -  
Determination of Residency Status for Admission and Tuition  
Assessment Purposes**

**ACTION:** The staff recommends that the Council approve the proposed amendment to the administrative regulation titled 13 KAR 2:045 Determination of residency status for admission and tuition assessment purposes. The action would authorize staff to file the proposed administrative regulation amendment and the General Counsel, pursuant to KRS 13A.290(4) and KRS 13A.320(1)(b), to make such changes on behalf of the Council as necessary to comply with KRS Chapter 13A and obtain adoption of the amended regulation by the Administrative Regulation Review Subcommittee and the Interim Joint Committee on Education.

13 KAR 2:045 establishes the requirements for determinations of residency for purposes of admission and tuition at Kentucky's public colleges and universities.

**Authority**

KRS 164.020(8) states that the Council shall "determine tuition and approve the minimum qualifications for admission to state postsecondary education institutions. . ."

**Necessity of Proposed Amendment to Regulation**

In August 2014, President Obama signed into law the *Veterans Access, Choice and Accountability Act of 2014*. Section 702 of the Act requires public institutions to charge in-state tuition to veterans serving at least 90 days who enroll within three (3) years of discharge from active duty, as well as certain individuals who receive federal education benefits through those veterans. If institutions are not able to comply with this requirement by July 1, 2015, the Veteran's Administration (VA) will disapprove them for all Montgomery and Post-9/11 GI Bill educational assistance.

As currently constituted, 13 KAR 2:045 would require covered individuals who do not otherwise meet the requirements for residency to be charged the out-of-state tuition rate. Therefore, the Council must amend 13 KAR 2:045 accordingly to ensure that students at Kentucky's public institutions can continue to receive Montgomery and Post-9/11 GI Bill educational assistance.

The Council must simultaneously file an emergency regulation amendment to ensure that Kentucky meets the July 1, 2015 deadline for compliance, as an ordinary regulation

amendment takes at least four (4) months to process and become final. Emergency regulations go into effect immediately upon filing which will enable students and schools to make decisions with regards to accepting admission and securing funding for terms that begin after July 1, 2015. Institutions must submit funding draw certifications to the VA far in advance of the term attended, and the VA will not distribute funds for terms beginning after July 1, 2015 until Kentucky is in compliance.

### **Proposed Amendment Language**

The proposed amendment will change these administrative regulations as follows:

- A person eligible for benefits under the federal Post-9/11 Veterans Educational Assistance Act of 2008 (38 U.S.C. Section 3301 et seq.) or any other federal law authorizing educational benefits for veterans will now be entitled to Kentucky resident status notwithstanding the other factors used for a determination of residency outlined in the other sections of 13 KAR 2:045.

### **Conclusion**

The process of revising an administrative regulation, established in KRS Chapter 13A, will be initiated with Council approval of this amended ordinary regulation, along with the identical emergency regulation amendment which will go into effect immediately upon filing and stay in effect until the ordinary regulation amendment becomes final. The proposed revised administrative regulation will go through a public hearing and comment period and review by the Administrative Regulation Review Subcommittee and the Interim Joint Committee on Education.

Staff preparation by Travis Powell

1 COUNCIL ON POSTSECONDARY EDUCATION

2 (Amendment)

3 13 KAR 2:045. Determination of residency status for admission and tuition as-  
4 sessment purposes.

5

6 RELATES TO: KRS Chapter 13B, 164.020, 164.030, 164A.330(6)

7 STATUTORY AUTHORITY: KRS 164.020(8)

8 NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Coun-  
9 cil on Postsecondary Education to determine tuition and approve the minimum qualifica-  
10 tions for admission to a state postsecondary education institution and authorizes the  
11 Council to set different tuition amounts for residents of Kentucky and for nonresidents.  
12 This administrative regulation establishes the procedure and guidelines for determining  
13 the residency status of a student who is seeking admission to, or who is enrolled at, a  
14 state-supported postsecondary education institution.

15

16 Section 1. Definitions. (1) "Academic term" means a division of the school year dur-  
17 ing which a course of studies is offered, and includes a semester, quarter, or single con-  
18 solidated summer term as defined by the institution.

19 (2) "Continuous enrollment" means enrollment in a state-supported postsecondary  
20 education institution at the same degree level for consecutive terms, excluding summer  
21 term, since the beginning of the period for which continuous enrollment is claimed unless

1 a sequence of continuous enrollment is broken due to extenuating circumstances beyond  
2 the student's control, including serious personal illness or injury, or illness or death of a  
3 parent.

4 (3) "Degree level" means enrollment in a course or program that could result in the  
5 award of a:

6 (a) Certificate, diploma, or other program award at an institution;

7 (b) Baccalaureate degree or lower, including enrollment in a course by a  
8 nondegree-seeking postbaccalaureate student;

9 (c) Graduate degree or graduate certification other than a first-professional degree  
10 in law, medicine, dentistry, or "Pharm. D"; or

11 (d) Professional degree in law, medicine, dentistry, or "Pharm. D".

12 (4) "Dependent person" means a person who cannot demonstrate financial inde-  
13 pendence from parents or persons other than a spouse and who does not meet the criteria  
14 for independence established in Section 5 of this administrative regulation.

15 (5) "Determination of residency status" means the decision of a postsecondary ed-  
16 ucation institution that may include a formal hearing that results in the classification of a  
17 person as a Kentucky resident or as a nonresident for admission and tuition assessment  
18 purposes.

19 (6) "Domicile" means a person's true, fixed, and permanent home and is the place  
20 where the person intends to remain indefinitely, and to which the person expects to return  
21 if absent without intending to establish a new domicile elsewhere.

22 (7) "Full-time employment" means continuous employment for at least forty-eight  
23 (48) weeks at an average of at least thirty (30) hours per week.

1 (8) "Independent person" means a person who demonstrates financial independ-  
2 ence from parents or persons other than a spouse and who meets the criteria for inde-  
3 pendence established in Section 5 of this administrative regulation.

4 (9) "Institution" means an entity defined by KRS 164.001(12) if the type of institution  
5 is not expressly stated and includes the Kentucky Virtual University, the Council on Post-  
6 secondary Education, and the Kentucky Higher Education Assistance Authority.

7 (10) "Kentucky resident" means a person determined by an institution for tuition  
8 purpose to be domiciled in and a resident of Kentucky as determined by this administra-  
9 tive regulation.

10 (11) "Nonresident" means a person who:

11 (a) Is domiciled outside by Kentucky;

12 (b) Currently maintains legal residence outside Kentucky; or

13 (c) Is not a Kentucky resident as determined by this administrative regulation.

14 (12) "Parent" means one (1) of the following:

15 (a) A person's father or mother; or

16 (b) A court-appointed legal guardian if:

17 1. The guardianship is recognized by an appropriate court within the United States;

18 2. There was a relinquishment of the rights of the parents; and

19 3. The guardianship was not established primarily to confer Kentucky residency on  
20 the person.

21 (13) "Preponderance of the evidence" means the greater weight of evidence or evi-  
22 dence that is more credible and convincing to the mind.

23 (14) "Residence" means the place of abode of a person and the place where the

1 person is physically present most of the time for a noneducational purpose in accordance  
2 with Section 3 of this administrative regulation.

3 (15) "Student financial aid" means all forms of payments to a student if one (1) con-  
4 dition of receiving the payment is the enrollment of the student at an institution, and in-  
5 cludes student employment by the institution or a graduate assistantship.

6 (16) "Sustenance" means living expenses including room, board, maintenance,  
7 transportation, and educational expenses including tuition, fees, books, and supplies.

8

9 Section 2. Scope. (1) State-supported postsecondary education institutions were  
10 established and are maintained by the Commonwealth of Kentucky primarily for the bene-  
11 fit of qualified residents of Kentucky. The substantial commitment of public resources to  
12 postsecondary education is predicated on the proposition that the state benefits signifi-  
13 cantly from the existence of an educated citizenry. As a matter of policy, access to post-  
14 secondary education shall be provided so far as feasible at reasonable cost to a qualified  
15 individual who is domiciled in Kentucky and who is a resident of Kentucky.

16 (2) The Council on Postsecondary Education may require a student who is neither  
17 domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a  
18 higher level of tuition than resident students.

19 (3) This administrative regulation shall apply to all student residency determinations  
20 regardless of circumstances, including residency determinations made by the state-  
21 supported institutions for prospective and currently-enrolled students; the Southern Re-  
22 gional Education Board for contract spaces; reciprocity agreements, if appropriate; the  
23 Kentucky Virtual University; academic common market programs; the Kentucky Educa-

1 tional Excellence Scholarship Program; and other state student financial aid programs, as  
2 appropriate.

3

4 Section 3. Determination of Residency Status; General Rules. (1) A determination  
5 of residency shall include:

6 (a) An initial determination of residency status by an institution during the admission  
7 process or upon enrollment in an institution for a specific academic term or for admission  
8 into a specific academic program;

9 (b) A reconsideration of a determination of residency status by an institution based  
10 upon a changed circumstance; or

11 (c) A formal hearing conducted by an institution upon request of a student after oth-  
12 er administrative procedures have been completed.

13 (2) An initial determination of residency status shall be based upon:

14 (a) The facts in existence when the credentials established by an institution for ad-  
15 mission for a specific academic term have been received and during the period of review  
16 by the institution;

17 (b) Information derived from admissions materials;

18 (c) If applicable, other materials required by an institution and consistent with this  
19 administrative regulation; and

20 (d) Other information available to the institution from any source.

21 (3) An individual seeking a determination of Kentucky residency status shall  
22 demonstrate that status by a preponderance of the evidence.

23 (4) A determination of residency status shall be based upon verifiable circumstanc-

1 es or actions.

2 (5) Evidence and information cited as the basis for Kentucky domicile and residen-  
3 cy shall accompany the application for a determination of residency status.

4 (6) A student classified as a nonresident shall retain that status until the student is  
5 officially reclassified by an institution.

6 (7) A student may apply for a review of a determination of residency status once for  
7 each academic term.

8 (8) If an institution has information that a student's residency status may be incor-  
9 rect, the institution shall review and determine the student's correct residency status.

10 (9) If the Council on Postsecondary Education has information that an institution's  
11 determination of residency status for a student may be incorrect, it may require the institu-  
12 tion to review the circumstances and report the results of that review.

13 (10) An institution shall impose a penalty or sanction against a student who gives  
14 incorrect or misleading information to an institutional official, including payment of nonres-  
15 ident tuition for each academic term for which resident tuition was assessed based on an  
16 improper determination of residency status. The penalty or sanction may also include:

17 (a) Student discipline by the institution through a policy written and disseminated to  
18 students; or

19 (b) Criminal prosecution.

20

21 Section 4. Presumptions Regarding Residency Status. (1) In making a determina-  
22 tion of residency status, it shall be presumed that a person is a nonresident if:

23 (a) A person is, or seeks to be, an undergraduate student and admissions records

1 show the student to be a graduate of an out-of-state high school within five (5) years prior  
2 to a request for a determination of residency status;

3 (b) A person's admissions records indicate the student's residence to be outside of  
4 Kentucky at the time of application for admission;

5 (c) A person moves to Kentucky primarily for the purpose of enrollment in an institu-  
6 tion;

7 (d) A person moves to Kentucky and within twelve (12) months enrolls at an institu-  
8 tion more than half time;

9 (e) A person has a continuous absence of one (1) year from Kentucky; or

10 (f) A person attended an out-of-state higher education institution during the past ac-  
11 ademic year and paid in-state tuition at that institution.

12 (2) A presumption arising from subsection (1) of this section shall only be overcome  
13 by preponderance of evidence sufficient to demonstrate that a person is domiciled in and  
14 is a resident of Kentucky.

15

16 Section 5. Determination of Whether a Student is Dependent or Independent. (1) In  
17 a determination of residency status, an institution shall first determine whether a student is  
18 dependent or independent. This provision is predicated on the assumption that a depend-  
19 ent person lacks the financial ability to live independently of the person upon whom the  
20 student is dependent and therefore lacks the ability to form the requisite intent to establish  
21 domicile. A determination that a student is independent shall be one (1) step in the overall  
22 determination of whether a student is or is not a resident of Kentucky.

23 (2) In determining the dependent or independent status of a person, the following

1 information shall be considered as well as other relevant information available at the time  
2 the determination is made:

3 (a)1. Whether the person has been claimed as a dependent on the federal or state  
4 tax returns of a parent or other person for the year preceding the date of application for a  
5 determination of residency status; or

6 2. Whether the person is no longer claimed by a parent or other person as a de-  
7 pendent or as an exemption for federal and state tax purposes; and

8 (b) Whether the person has financial earnings and resources independent of a per-  
9 son other than an independent spouse necessary to provide for the person's own suste-  
10 nance.

11 (3) An individual who enrolls at an institution immediately following graduation from  
12 high school and remains enrolled shall be presumed to be a dependent person unless the  
13 contrary is evident from the information submitted.

14 (4) Domicile may be inferred from the student's permanent address, parent's mail-  
15 ing address, or location of high school of graduation.

16 (5) Marriage to an independent person domiciled in and who is a resident of Ken-  
17 tucky shall be a factor considered by an institution in determining whether a student is de-  
18 pendent or independent.

19 (6) Financial assistance from or a loan made by a parent or family member other  
20 than an independent spouse, if used for sustenance of the student:

21 (a) Shall not be considered in establishing a student as independent; and

22 (b) Shall be a factor in establishing that a student is dependent.

23

1           Section 6. Effect of a Determination of Dependent Status on a Determination of  
2 Residency Status. (1) The effect of a determination that a person is dependent shall be:

3           (a) The domicile and residency of a dependent person shall be the same as either  
4 parent. The domicile and residency of the parent shall be determined in the same manner  
5 as the domicile and residency of an independent person; and

6           (b) The domicile and residency of a dependent person whose parents are divorced,  
7 separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is  
8 a resident of Kentucky regardless of which parent has legal custody or is entitled to claim  
9 that person as a dependent pursuant to federal or Kentucky income tax provisions.

10           (2) If the parent or parents of a dependent person are Kentucky residents and are  
11 domiciled in Kentucky but subsequently move from the state:

12           (a) The dependent person shall be considered a resident of Kentucky while in con-  
13 tinuous enrollment at the degree level in which currently enrolled; and

14           (b) The dependent person's residency status shall be reassessed if continuous en-  
15 rollment is broken or the current degree level is completed.

16  
17           Section 7. Member or Former Member of Armed Forces of the United States,  
18 Spouse and Dependents; Effect on a Determination of Residency Status. (1) A member,  
19 spouse, or dependent of a member whose domicile and residency was Kentucky at the  
20 time of induction into the Armed Forces of the United States, and who maintains Kentucky  
21 as home of record and permanent address, shall be entitled to Kentucky residency status:

22           (a) During the member's time of active service; or

23           (b) If the member returns to this state within six (6) months of the date of the mem-

1 ber's discharge from active duty.

2 (2)(a) A member of the armed services on active duty for more than thirty (30) days  
3 and who has a permanent duty station in Kentucky shall be classified as a Kentucky resi-  
4 dent and shall be entitled to in-state tuition as shall the spouse or a dependent child of the  
5 member.

6 (b) A member, spouse, or dependent of a member shall not lose Kentucky residen-  
7 cy status if the member is transferred on military orders while the member, spouse, or de-  
8 pendent requesting the status is in continuous enrollment at the degree level in which cur-  
9 rently enrolled.

10 (3)(a) Membership in the National Guard or civilian employment at a military base  
11 alone shall not qualify a person for Kentucky residency status under the provisions of sub-  
12 sections (1) and (2) of this section. If a member of the Kentucky National Guard is on ac-  
13 tive duty status for a period of not less than thirty (30) days, the member shall be consid-  
14 ered a Kentucky resident, as shall the spouse of a dependent child of the member.

15 (4) A person eligible for benefits under the federal Post-9/11 Veterans Educational  
16 Assistance Act of 2008 (38 U.S.C. 3301 et seq.) or any other federal law authorizing edu-  
17 cational benefits for veterans shall be entitled to Kentucky resident status.

18 (5) A person's residency status established pursuant to this section shall be reas-  
19 sessed if the qualifying condition is terminated.

20  
21 Section 8. Status of Nonresident Aliens; Visas and Immigration. (1)(a) A person  
22 holding a permanent residency visa or classified as a political refugee shall establish dom-  
23 icile and residency in the same manner as another person.

1 (b) Time spent in Kentucky and progress made in fulfilling the conditions of domi-  
2 cile and residency prior to obtaining permanent residency status shall be considered in  
3 establishing Kentucky domicile and residency.

4 (2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if ac-  
5 companying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency  
6 the same as another person.

7 (3)(a) An independent person holding a nonimmigrant visa with designation B, C, D,  
8 F, H-2, H-3, H-4 if accompanying a person with an H-2 or H-3 visa, J, M, O, P, Q, S, TD, or  
9 TN shall not be classified as a Kentucky resident, because that person does not have the  
10 capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent  
11 necessary to establish domicile as defined in Section 1(6) of this administrative regulation.

12 (b) A dependent person holding a visa as described in paragraph (a) of this subsec-  
13 tion, but who is a dependent of a parent holding a visa as described in subsection (2) of  
14 this section, shall be considered as holding the visa of the parent.

15 (c) A dependent person holding a visa described in subsection (2) of this section or  
16 paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resi-  
17 dent of and domiciled in Kentucky, shall be a resident of Kentucky for the purposes of this  
18 administrative regulation.

19 (4) A person shall be a Kentucky resident for the purpose of this administrative reg-  
20 ulation if the person graduated from a Kentucky high school and:

21 (a) Is an undocumented alien;

22 (b) Holds a visa listed in subsections (2) or (3)(a) of this section; or

23 (c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of

1 this section.

2 (5)(a) Except as provided in paragraph (b) of this subsection, a person who has peti-  
3 tioned the federal government to reclassify visa status shall continue to be ineligible until  
4 the petition has been decided by the federal government.

5 (b) A person who has petitioned the federal government to reclassify his or her visa  
6 status based on marriage to a Kentucky resident and who can demonstrate that the peti-  
7 tion has been filed and acknowledged by the federal government, may establish Kentucky  
8 domicile and residency at that time.

9  
10 Section 9. Beneficiaries of a Kentucky Educational Savings Plan Trust. A benefi-  
11 ciary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the  
12 beneficiary meets the requirements of KRS 164A.330(6).

13  
14 Section 10. Criteria Used in a Determination of Residency Status. (1)(a) A determi-  
15 nation of Kentucky domicile and residency shall be based upon verifiable circumstances  
16 or actions.

17 (b) A single fact shall not be paramount, and each situation shall be evaluated to  
18 identify those facts essential to the determination of domicile and residency.

19 (c) A person shall not be determined to be a Kentucky resident by the performance  
20 of an act that is incidental to fulfilling an educational purpose or by an act performed as a  
21 matter of convenience.

22 (d) Mere physical presence in Kentucky, including living with a relative or friend,  
23 shall not be sufficient evidence of domicile and residency.

1 (e) A student or prospective student shall respond to all requests for information re-  
2 garding domicile or residency requested by an institution.

3 (2) The following facts, although not conclusive, shall have probative value in their  
4 entirety and shall be individually weighted, appropriate to the facts and circumstances in  
5 each determination of residency:

6 (a) Acceptance of an offer of full-time employment or transfer to an employer in  
7 Kentucky or contiguous area while maintaining residence and domicile in Kentucky;

8 (b) Continuous physical presence in Kentucky while in a nonstudent status for the  
9 twelve (12) months immediately preceding the start of the academic term for which a  
10 classification of Kentucky residency is sought;

11 (c)1. Filing a Kentucky resident income tax return for the calendar year preceding  
12 the date of application for a change in residency status; or

13 2. Payment of Kentucky withholding taxes while employed during the calendar year  
14 for which a change in classification is sought;

15 (d) Full-time employment of at least one (1) year while living in Kentucky;

16 (e) Attendance as a full-time, nonresident student at an out-of-state institution  
17 based on a determination by that school that the person is a resident of Kentucky;

18 (f) Abandonment of a former domicile or residence and establishing domicile and  
19 residency in Kentucky with application to or attendance at an institution following and inci-  
20 dental to the change in domicile and residency;

21 (g) Obtaining licensing or certification for a professional and occupational purpose  
22 in Kentucky;

23 (h) Payment of real property taxes in Kentucky;

1 (i) Ownership of real property in Kentucky, if the property was used by the student  
2 as a residence preceding the date of application for a determination of residency status;

3 (j) Marriage of an independent student to a person who was domiciled in and a res-  
4 ident of Kentucky prior to the marriage; and

5 (k) The extent to which a student is dependent on student financial aid in order to  
6 provide basic sustenance.

7 (3) Except as provided in subsection (4) of this section, the following facts, because  
8 of the ease and convenience in completing them, shall have limited probative value in a  
9 determination that a person is domiciled in and is a resident of Kentucky:

10 (a) Kentucky automobile registration;

11 (b) Kentucky driver's license;

12 (c) Registration as a Kentucky voter;

13 (d) Long-term lease of at least twelve (12) consecutive months of noncollegiate  
14 housing; and

15 (e) Continued presence in Kentucky during academic breaks.

16 (4) The absence of a fact contained in subsection (3) of this section shall have sig-  
17 nificant probative value in determining that a student is not domiciled in or is not a resident  
18 of Kentucky.

19  
20 Section 11. Effect of a Change in Circumstances on Residency Status. (1) If a per-  
21 son becomes independent or if the residency status of a parent or parents of a dependent  
22 person changes, an institution shall reassess residency either upon a request by the stu-  
23 dent or a review initiated by the institution.

1 (2) Upon transfer to a Kentucky institution, a student's residency status shall be as-  
2 sessed by the receiving institution.

3 (3) A reconsideration of a determination of residency status for a dependent person  
4 shall be subject to the provisions for continuous enrollment, if applicable.

5  
6 Section 12. Student Responsibilities. (1) A student shall report under the proper res-  
7 idency classification, which includes the following actions:

8 (a) Raising a question concerning residency classification;

9 (b) Making application for change of residency classification with the designated  
10 office or person at the institution; and

11 (c) Notifying the designated office or person at the institution immediately upon a  
12 change in residency.

13 (2) If a student fails to notify an institutional official of a change in residency, an in-  
14 stitutional official may investigate and evaluate the student's residency status.

15 (3)(a) If a student fails to provide, by the date specified by the institution, information  
16 required by an institution in a determination of residency status, the student shall be noti-  
17 fied by the institution that the review has been canceled and that a determination has been  
18 made.

19 (b) Notification shall be made by registered mail, return receipt requested.

20 (c) Notification shall be made within ten (10) calendar days after the deadline for  
21 receipt of materials has passed.

22 (4)(a) The formal hearing conducted by an institution and the final recommended  
23 order shall be a final administrative action with no appeal to the Council on Postsecondary

1 Education.

2 (b) A formal administrative hearing conducted by the Council on Postsecondary Ed-  
3 ucation for residency determinations related to eligibility for the Academic Common Mar-  
4 ket and Regional Contract Programs shall be conducted pursuant to the provisions of KRS  
5 Chapter 13B and 13 KAR 2:070. The recommended order issued by the President of the  
6 Council shall be a final administrative action.

7 (5) A student shall not be entitled to appeal a determination of residency status if  
8 the determination made by an institution is because a student has failed to meet pub-  
9 lished deadlines for the submission of information as set forth in subsection (3) of this sec-  
10 tion. A student may request a review of a determination of residency status in a subse-  
11 quent academic term.

12

13 Section 13. Institutional Responsibilities. Each institution shall:

14 (1) Provide for an administrative appeals process that includes a residency appeals  
15 officer to consider student appeals of an initial residency determination and which shall  
16 include a provision of fourteen (14) days for the student to appeal the residency appeals  
17 officer's determination;

18 (2) Establish a residency review committee to consider appeals of residency deter-  
19 minations by the residency appeals officer. The residency review committee shall make a  
20 determination of student residency status and notify the student in writing within forty-five  
21 (45) days after receipt of the student appeal;

22 (3) Establish a formal hearing process as described in Section 14 of this adminis-  
23 trative regulation; and

1 (4) Establish written policies and procedures for administering the responsibilities  
2 established in subsections (1), (2), and (3) of this section and that are:

- 3 (a) Approved by the institution's governing board;
- 4 (b) Made available to all students; and
- 5 (c) Filed with the council.

6  
7 Section 14. Formal Institutional Hearing. (1) A student who appeals a determination  
8 of residency by a residency review committee shall be granted a formal hearing by an in-  
9 stitution if the request is made by a student in writing within fourteen (14) calendar days  
10 after notification of a determination by a residency review committee.

11 (2) If a request for a formal hearing is received, an institution shall appoint a hearing  
12 officer to conduct a formal hearing. The hearing officer shall:

13 (a) Be a person not involved in determinations of residency at an institution except  
14 for formal hearings; and

15 (b) Not be an employee in the same organizational unit as the residency appeals  
16 officer.

17 (3) An institution shall have written procedures for the conduct of a formal hearing  
18 that have been adopted by the board of trustees or regents, as appropriate, and that pro-  
19 vide for:

- 20 (a) A hearing officer to make a recommendation on a residency appeal;
- 21 (b) Guarantees of due process to a student that include:
  - 22 1. The right of a student to be represented by legal counsel; and
  - 23 2. The right of a student to present information and to present testimony and infor-

1 mation in support of a claim of Kentucky residency; and

2 (c) A recommendation to be issued by the hearing officer.

3 (4) An institution's formal hearing procedures shall be filed with the Council on  
4 Postsecondary Education and shall be available to a student requesting a formal hearing.

5

6 Section 15. Cost of Formal Hearings. (1) An institution shall pay the cost for all res-  
7 idency determinations including the cost of a formal hearing.

8 (2) A student shall pay for the cost of all legal representation in support of the stu-  
9 dent's claim of residency.

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Date

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Chair  
Council on Postsecondary Education

APPROVED AS TO FORM:

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Date

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Travis Powell, General Counsel  
Council on Postsecondary Education

**PUBLIC HEARING AND PUBLIC COMMENT PERIOD:** A public hearing on this administrative regulation shall be held on April 22, 2015 at 10:00 a.m. at the Council on Postsecondary Education, 1024 Capital Center Drive, Suite 320, Frankfort, Kentucky, 40601 in Conference Room A. Individuals interested in being heard at this hearing shall notify this agency in writing five workdays prior to the hearing of their intent to attend. If no notification to attend the hearing is received by that date, the hearing may be cancelled.

This hearing is open to the public. Any person who wishes to be heard will be given an opportunity to comment on the proposed administrative regulation. A transcript of the public hearing will not be made unless a written request for a transcript is made.

If you do not wish to be heard at the public hearing, you may submit written comments on the proposed administrative regulation. Written comments shall be accepted until 11:59 pm, April 30, 2015.

Send written notification of intent to be heard at the public hearing or written comments on the proposed administrative regulation to the contact person.

**CONTACT PERSON:**

Travis Powell  
General Counsel and  
Assistant Vice President of Operations  
Council on Postsecondary Education  
1024 Capital Center Dr.  
Suite 350  
Frankfort, Kentucky 40601  
Phone: 502.573.1555 ext. 142  
Fax: 502.573.1535  
Email: [travis.powell@ky.gov](mailto:travis.powell@ky.gov)

REGULATORY IMPACT ANALYSIS  
AND TIERING STATEMENT

Administrative Regulation 13 KAR 2:045. *Determination of residency status for admission and tuition assessment purposes.*

Contact person: Travis Powell  
General Counsel and  
Assistant Vice President of Operations  
Council on Postsecondary Education  
1024 Capital Center Drive, Suite 320  
Frankfort, KY 40601  
502.573.1555 ext. 142  
travis.powell@ky.gov  
FAX: 502.573.1535

- (1) Provide a brief summary of:
  - (a) What this administrative regulation does: This administrative regulation sets the criteria for determining whether a student is, or is not, a Kentucky resident for the purpose of admissions to a state-supported institution, or for the purpose of assessing tuition.
  - (b) The necessity of this administrative regulation: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents.
  - (c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. KRS 164.020(29) empowers the Council to promulgate administrative regulations to carry out this and other duties.
  - (d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation establishes the procedure and guidelines for determining the residency status of a

student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

- (2) If this is an amendment to an existing administrative regulation, provide a brief summary of:
- (a) How the amendment will change this existing administrative regulation:  
This amendment will allow a person eligible for benefits under the federal Post-9/11 Veterans Educational Assistance Act of 2008 (38 U.S.C. Section 3301 et seq.) or any other federal law authorizing educational benefits for veterans to be entitled to Kentucky resident status for purposes of admission and tuition at public postsecondary institutions in Kentucky.
  - (b) The necessity of the amendment to this administrative regulation: In August 2014, President Obama signed into law the Veterans Access, Choice and Accountability Act of 2014. Section 702 of the Act requires public institutions to charge in-state tuition to veterans serving at least 90 days who enroll within three (3) years of discharge from active duty, as well as certain individuals who receive federal education benefits through those veterans. If institutions are not able to comply with this requirement by July 1, 2015, the Veteran's Administration (VA) will disapprove them for all Montgomery and Post-9/11 GI Bill educational assistance. As currently constituted, 13 KAR 2:045 would require covered individuals who do not otherwise meet the requirements for residency to be charged the out-of-state tuition rate. Therefore, the Council must amend 13 KAR 2:045 accordingly to ensure that students at Kentucky's public postsecondary institutions can continue to receive Montgomery and Post-9/11 GI Bill educational assistance.
  - (c) How the amendment conforms to the content of the authorizing statutes:  
The amendment conforms with the requirements of KRS 164.020(8) by further defining residency for purposes of tuition and admission. It conforms with Section 702 of the Veteran's Access, Choice and Accountability Act of 2014 by ensuring that the required class of individuals will be charged the in-state rate of tuition.
  - (d) How the amendment will assist in the effective administration of the stat-

utes: The amendment ensures that public institutions are in compliance with federal law so their eligible students can continue receiving Post 9/11 and Montgomery GI Bill benefits.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: This regulation affects all public colleges and universities in Kentucky as well as all students attending those institutions.

(4) Provide an assessment of how the above group or groups will be impacted by either the implementation of this administrative regulation, if new, or by the change if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: Public institutions will need to verify that an applicant is eligible for the in-state tuition rate by obtaining his or her certification of eligibility from the Veterans Benefits Administration. Eligible applicants will need to obtain that certification and provide it to institution.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3): Cost of compliance will vary depending on the number of students in attendance that would have otherwise been required to pay the out-of-state rate. However, the potential loss of all Post 9/11 and Montgomery GI Bill funding would be much greater than what will be lost by charging the lower in-state rate to eligible individuals not already receiving the in-state rate.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3): See 4(b) above.

(5) Provide an estimate of how much it will cost to implement this administrative regulation:

(a) Initially: We estimate that there will be no additional cost in implementing the proposed changes to the regulation.

(b) On a continuing basis: We estimate that there will be no additional costs on a continuing basis to implement the proposed changes to the regulation.

- (6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: General Fund appropriations.
- (7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: No. Implementation of this amendment does not require an increase in fees or funding.
- (8) State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees: No.
- (9) TIERING: Is tiering applied? Tiering is not applied. The requirements for determinations of residency in the regulation apply to all students applying to state postsecondary education institutions.

## FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

Regulation No. 13 KAR 2:045. Determination of residency status for admission and tuition assessment purposes.

Contact Person: Travis Powell, 502-573-1555

1. What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation? Public colleges and universities in Kentucky are impacted.

2. Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation. KRS 164.020 and PL 113-146 Veterans Access, Choice and Accountability Act (Section 702).

3. Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.

(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year? None.

(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years? None.

(c) How much will it cost to administer this program for the first year? Determinations of residency are done as part of the larger admissions process at public institutions in Kentucky. As such, it is difficult to pull this aspect out of the admission process and determine its cost of administration. While staff time and other resources are used to make residency determinations, they dictate how much an institution can charge an individual for tuition and are therefore necessary in order to collect those funds.

(d) How much will it cost to administer this program for subsequent years? See 3(c).

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-):

Expenditures (+/-):

Other Explanation: N/A



STATEMENT OF EMERGENCY  
13 KAR 2:045E

Determination of residency status for admission and tuition assessment purposes

Pursuant to KRS 13A.190, the Governor of the Commonwealth of Kentucky does hereby declare that the above cited administrative regulation should be amended on an emergency basis in order to prevent the loss of federal funds by Kentucky's public postsecondary institutions and their students.

In August 2014, President Obama signed into law the Veterans Access, Choice and Accountability Act of 2014. Section 702 of the Act requires public institutions to charge in-state tuition to veterans serving at least 90 days who enroll within three (3) years of discharge from active duty, as well as certain individuals who receive federal education benefits through those veterans. If institutions are not able to comply with this requirement by July 1, 2015, the Veteran's Administration (VA) will disapprove them for all Montgomery and Post-9/11 GI Bill educational assistance.

It is necessary to promulgate this administrative regulation on an emergency basis to ensure that Kentucky meets the July 1, 2015 deadline for compliance. This will enable students and schools to make decisions now with regards to accepting admission and securing funding for terms that begin after July 1, 2015. Institutions must submit funding draw certifications to the VA far in advance of the term attended, and the VA will not distribute funds for terms beginning after July 1, 2015 until Kentucky is in compliance.

This emergency administrative regulation amendment will be replaced by an ordinary administrative regulation amendment. The ordinary administrative regulation amendment is identical to this emergency administrative regulation amendment.

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Steven L. Beshear, Governor

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Chair  
Council on Postsecondary Education

1 COUNCIL ON POSTSECONDARY EDUCATION

2 (Emergency Amendment)

3 13 KAR 2:045. Determination of residency status for admission and tuition as-  
4 sessment purposes.

5

6 RELATES TO: KRS Chapter 13B, 164.020, 164.030, 164A.330(6)

7 STATUTORY AUTHORITY: KRS 164.020(8)

8 NECESSITY, FUNCTION, AND CONFORMITY: KRS 164.020(8) requires the Coun-  
9 cil on Postsecondary Education to determine tuition and approve the minimum qualifica-  
10 tions for admission to a state postsecondary education institution and authorizes the  
11 Council to set different tuition amounts for residents of Kentucky and for nonresidents.  
12 This administrative regulation establishes the procedure and guidelines for determining  
13 the residency status of a student who is seeking admission to, or who is enrolled at, a  
14 state-supported postsecondary education institution.

15

16 Section 1. Definitions. (1) "Academic term" means a division of the school year dur-  
17 ing which a course of studies is offered, and includes a semester, quarter, or single con-  
18 solidated summer term as defined by the institution.

19 (2) "Continuous enrollment" means enrollment in a state-supported postsecondary  
20 education institution at the same degree level for consecutive terms, excluding summer  
21 term, since the beginning of the period for which continuous enrollment is claimed unless

1 a sequence of continuous enrollment is broken due to extenuating circumstances beyond  
2 the student's control, including serious personal illness or injury, or illness or death of a  
3 parent.

4 (3) "Degree level" means enrollment in a course or program that could result in the  
5 award of a:

6 (a) Certificate, diploma, or other program award at an institution;

7 (b) Baccalaureate degree or lower, including enrollment in a course by a  
8 nondegree-seeking postbaccalaureate student;

9 (c) Graduate degree or graduate certification other than a first-professional degree  
10 in law, medicine, dentistry, or "Pharm. D"; or

11 (d) Professional degree in law, medicine, dentistry, or "Pharm. D".

12 (4) "Dependent person" means a person who cannot demonstrate financial inde-  
13 pendence from parents or persons other than a spouse and who does not meet the criteria  
14 for independence established in Section 5 of this administrative regulation.

15 (5) "Determination of residency status" means the decision of a postsecondary ed-  
16 ucation institution that may include a formal hearing that results in the classification of a  
17 person as a Kentucky resident or as a nonresident for admission and tuition assessment  
18 purposes.

19 (6) "Domicile" means a person's true, fixed, and permanent home and is the place  
20 where the person intends to remain indefinitely, and to which the person expects to return  
21 if absent without intending to establish a new domicile elsewhere.

22 (7) "Full-time employment" means continuous employment for at least forty-eight  
23 (48) weeks at an average of at least thirty (30) hours per week.

1 (8) "Independent person" means a person who demonstrates financial independ-  
2 ence from parents or persons other than a spouse and who meets the criteria for inde-  
3 pendence established in Section 5 of this administrative regulation.

4 (9) "Institution" means an entity defined by KRS 164.001(12) if the type of institution  
5 is not expressly stated and includes the Kentucky Virtual University, the Council on Post-  
6 secondary Education, and the Kentucky Higher Education Assistance Authority.

7 (10) "Kentucky resident" means a person determined by an institution for tuition  
8 purpose to be domiciled in and a resident of Kentucky as determined by this administra-  
9 tive regulation.

10 (11) "Nonresident" means a person who:

11 (a) Is domiciled outside by Kentucky;

12 (b) Currently maintains legal residence outside Kentucky; or

13 (c) Is not a Kentucky resident as determined by this administrative regulation.

14 (12) "Parent" means one (1) of the following:

15 (a) A person's father or mother; or

16 (b) A court-appointed legal guardian if:

17 1. The guardianship is recognized by an appropriate court within the United States;

18 2. There was a relinquishment of the rights of the parents; and

19 3. The guardianship was not established primarily to confer Kentucky residency on  
20 the person.

21 (13) "Preponderance of the evidence" means the greater weight of evidence or evi-  
22 dence that is more credible and convincing to the mind.

23 (14) "Residence" means the place of abode of a person and the place where the

1 person is physically present most of the time for a noneducational purpose in accordance  
2 with Section 3 of this administrative regulation.

3 (15) "Student financial aid" means all forms of payments to a student if one (1) con-  
4 dition of receiving the payment is the enrollment of the student at an institution, and in-  
5 cludes student employment by the institution or a graduate assistantship.

6 (16) "Sustenance" means living expenses including room, board, maintenance,  
7 transportation, and educational expenses including tuition, fees, books, and supplies.

8

9 Section 2. Scope. (1) State-supported postsecondary education institutions were  
10 established and are maintained by the Commonwealth of Kentucky primarily for the bene-  
11 fit of qualified residents of Kentucky. The substantial commitment of public resources to  
12 postsecondary education is predicated on the proposition that the state benefits signifi-  
13 cantly from the existence of an educated citizenry. As a matter of policy, access to post-  
14 secondary education shall be provided so far as feasible at reasonable cost to a qualified  
15 individual who is domiciled in Kentucky and who is a resident of Kentucky.

16 (2) The Council on Postsecondary Education may require a student who is neither  
17 domiciled in nor a resident of Kentucky to meet higher admission standards and to pay a  
18 higher level of tuition than resident students.

19 (3) This administrative regulation shall apply to all student residency determinations  
20 regardless of circumstances, including residency determinations made by the state-  
21 supported institutions for prospective and currently-enrolled students; the Southern Re-  
22 gional Education Board for contract spaces; reciprocity agreements, if appropriate; the  
23 Kentucky Virtual University; academic common market programs; the Kentucky Educa-

1 tional Excellence Scholarship Program; and other state student financial aid programs, as  
2 appropriate.

3

4 Section 3. Determination of Residency Status; General Rules. (1) A determination  
5 of residency shall include:

6 (a) An initial determination of residency status by an institution during the admission  
7 process or upon enrollment in an institution for a specific academic term or for admission  
8 into a specific academic program;

9 (b) A reconsideration of a determination of residency status by an institution based  
10 upon a changed circumstance; or

11 (c) A formal hearing conducted by an institution upon request of a student after oth-  
12 er administrative procedures have been completed.

13 (2) An initial determination of residency status shall be based upon:

14 (a) The facts in existence when the credentials established by an institution for ad-  
15 mission for a specific academic term have been received and during the period of review  
16 by the institution;

17 (b) Information derived from admissions materials;

18 (c) If applicable, other materials required by an institution and consistent with this  
19 administrative regulation; and

20 (d) Other information available to the institution from any source.

21 (3) An individual seeking a determination of Kentucky residency status shall  
22 demonstrate that status by a preponderance of the evidence.

23 (4) A determination of residency status shall be based upon verifiable circumstanc-

1 es or actions.

2 (5) Evidence and information cited as the basis for Kentucky domicile and residen-  
3 cy shall accompany the application for a determination of residency status.

4 (6) A student classified as a nonresident shall retain that status until the student is  
5 officially reclassified by an institution.

6 (7) A student may apply for a review of a determination of residency status once for  
7 each academic term.

8 (8) If an institution has information that a student's residency status may be incor-  
9 rect, the institution shall review and determine the student's correct residency status.

10 (9) If the Council on Postsecondary Education has information that an institution's  
11 determination of residency status for a student may be incorrect, it may require the institu-  
12 tion to review the circumstances and report the results of that review.

13 (10) An institution shall impose a penalty or sanction against a student who gives  
14 incorrect or misleading information to an institutional official, including payment of nonres-  
15 ident tuition for each academic term for which resident tuition was assessed based on an  
16 improper determination of residency status. The penalty or sanction may also include:

17 (a) Student discipline by the institution through a policy written and disseminated to  
18 students; or

19 (b) Criminal prosecution.

20

21 Section 4. Presumptions Regarding Residency Status. (1) In making a determina-  
22 tion of residency status, it shall be presumed that a person is a nonresident if:

23 (a) A person is, or seeks to be, an undergraduate student and admissions records

1 show the student to be a graduate of an out-of-state high school within five (5) years prior  
2 to a request for a determination of residency status;

3 (b) A person's admissions records indicate the student's residence to be outside of  
4 Kentucky at the time of application for admission;

5 (c) A person moves to Kentucky primarily for the purpose of enrollment in an institu-  
6 tion;

7 (d) A person moves to Kentucky and within twelve (12) months enrolls at an institu-  
8 tion more than half time;

9 (e) A person has a continuous absence of one (1) year from Kentucky; or

10 (f) A person attended an out-of-state higher education institution during the past ac-  
11 ademic year and paid in-state tuition at that institution.

12 (2) A presumption arising from subsection (1) of this section shall only be overcome  
13 by preponderance of evidence sufficient to demonstrate that a person is domiciled in and  
14 is a resident of Kentucky.

15

16 Section 5. Determination of Whether a Student is Dependent or Independent. (1) In  
17 a determination of residency status, an institution shall first determine whether a student is  
18 dependent or independent. This provision is predicated on the assumption that a depend-  
19 ent person lacks the financial ability to live independently of the person upon whom the  
20 student is dependent and therefore lacks the ability to form the requisite intent to establish  
21 domicile. A determination that a student is independent shall be one (1) step in the overall  
22 determination of whether a student is or is not a resident of Kentucky.

23 (2) In determining the dependent or independent status of a person, the following

1 information shall be considered as well as other relevant information available at the time  
2 the determination is made:

3 (a)1. Whether the person has been claimed as a dependent on the federal or state  
4 tax returns of a parent or other person for the year preceding the date of application for a  
5 determination of residency status; or

6 2. Whether the person is no longer claimed by a parent or other person as a de-  
7 pendent or as an exemption for federal and state tax purposes; and

8 (b) Whether the person has financial earnings and resources independent of a per-  
9 son other than an independent spouse necessary to provide for the person's own suste-  
10 nance.

11 (3) An individual who enrolls at an institution immediately following graduation from  
12 high school and remains enrolled shall be presumed to be a dependent person unless the  
13 contrary is evident from the information submitted.

14 (4) Domicile may be inferred from the student's permanent address, parent's mail-  
15 ing address, or location of high school of graduation.

16 (5) Marriage to an independent person domiciled in and who is a resident of Ken-  
17 tucky shall be a factor considered by an institution in determining whether a student is de-  
18 pendent or independent.

19 (6) Financial assistance from or a loan made by a parent or family member other  
20 than an independent spouse, if used for sustenance of the student:

21 (a) Shall not be considered in establishing a student as independent; and

22 (b) Shall be a factor in establishing that a student is dependent.

23

1           Section 6. Effect of a Determination of Dependent Status on a Determination of  
2 Residency Status. (1) The effect of a determination that a person is dependent shall be:

3           (a) The domicile and residency of a dependent person shall be the same as either  
4 parent. The domicile and residency of the parent shall be determined in the same manner  
5 as the domicile and residency of an independent person; and

6           (b) The domicile and residency of a dependent person whose parents are divorced,  
7 separated, or otherwise living apart shall be Kentucky if either parent is domiciled in and is  
8 a resident of Kentucky regardless of which parent has legal custody or is entitled to claim  
9 that person as a dependent pursuant to federal or Kentucky income tax provisions.

10          (2) If the parent or parents of a dependent person are Kentucky residents and are  
11 domiciled in Kentucky but subsequently move from the state:

12          (a) The dependent person shall be considered a resident of Kentucky while in con-  
13 tinuous enrollment at the degree level in which currently enrolled; and

14          (b) The dependent person's residency status shall be reassessed if continuous en-  
15 rollment is broken or the current degree level is completed.

16  
17          Section 7. Member or Former Member of Armed Forces of the United States,  
18 Spouse and Dependents; Effect on a Determination of Residency Status. (1) A member,  
19 spouse, or dependent of a member whose domicile and residency was Kentucky at the  
20 time of induction into the Armed Forces of the United States, and who maintains Kentucky  
21 as home of record and permanent address, shall be entitled to Kentucky residency status:

22          (a) During the member's time of active service; or

23          (b) If the member returns to this state within six (6) months of the date of the mem-

1 ber's discharge from active duty.

2 (2)(a) A member of the armed services on active duty for more than thirty (30) days  
3 and who has a permanent duty station in Kentucky shall be classified as a Kentucky resi-  
4 dent and shall be entitled to in-state tuition as shall the spouse or a dependent child of the  
5 member.

6 (b) A member, spouse, or dependent of a member shall not lose Kentucky residen-  
7 cy status if the member is transferred on military orders while the member, spouse, or de-  
8 pendent requesting the status is in continuous enrollment at the degree level in which cur-  
9 rently enrolled.

10 (3)(a) Membership in the National Guard or civilian employment at a military base  
11 alone shall not qualify a person for Kentucky residency status under the provisions of sub-  
12 sections (1) and (2) of this section. If a member of the Kentucky National Guard is on ac-  
13 tive duty status for a period of not less than thirty (30) days, the member shall be consid-  
14 ered a Kentucky resident, as shall the spouse of a dependent child of the member.

15 (4) A person eligible for benefits under the federal Post-9/11 Veterans Educational  
16 Assistance Act of 2008 (38 U.S.C. 3301 et seq.) or any other federal law authorizing edu-  
17 cational benefits for veterans shall be entitled to Kentucky resident status.

18 (5) A person's residency status established pursuant to this section shall be reas-  
19 sessed if the qualifying condition is terminated.

20  
21 Section 8. Status of Nonresident Aliens; Visas and Immigration. (1)(a) A person  
22 holding a permanent residency visa or classified as a political refugee shall establish dom-  
23 icile and residency in the same manner as another person.

1 (b) Time spent in Kentucky and progress made in fulfilling the conditions of domi-  
2 cile and residency prior to obtaining permanent residency status shall be considered in  
3 establishing Kentucky domicile and residency.

4 (2) A person holding a nonimmigrant visa with designation A, E, G, H-1, H-4 if ac-  
5 companying a person with an H-1 visa, I, K, L, N, R, shall establish domicile and residency  
6 the same as another person.

7 (3)(a) An independent person holding a nonimmigrant visa with designation B, C, D,  
8 F, H-2, H-3, H-4 if accompanying a person with an H-2 or H-3 visa, J, M, O, P, Q, S, TD, or  
9 TN shall not be classified as a Kentucky resident, because that person does not have the  
10 capacity to remain in Kentucky indefinitely and therefore cannot form the requisite intent  
11 necessary to establish domicile as defined in Section 1(6) of this administrative regulation.

12 (b) A dependent person holding a visa as described in paragraph (a) of this subsec-  
13 tion, but who is a dependent of a parent holding a visa as described in subsection (2) of  
14 this section, shall be considered as holding the visa of the parent.

15 (c) A dependent person holding a visa described in subsection (2) of this section or  
16 paragraph (a) of this subsection, if a parent is a citizen of the United States and is a resi-  
17 dent of and domiciled in Kentucky, shall be a resident of Kentucky for the purposes of this  
18 administrative regulation.

19 (4) A person shall be a Kentucky resident for the purpose of this administrative reg-  
20 ulation if the person graduated from a Kentucky high school and:

21 (a) Is an undocumented alien;

22 (b) Holds a visa listed in subsections (2) or (3)(a) of this section; or

23 (c) Is a dependent of a person who holds a visa listed in subsections (2) or (3)(a) of

1 this section.

2 (5)(a) Except as provided in paragraph (b) of this subsection, a person who has peti-  
3 tioned the federal government to reclassify visa status shall continue to be ineligible until  
4 the petition has been decided by the federal government.

5 (b) A person who has petitioned the federal government to reclassify his or her visa  
6 status based on marriage to a Kentucky resident and who can demonstrate that the peti-  
7 tion has been filed and acknowledged by the federal government, may establish Kentucky  
8 domicile and residency at that time.

9  
10 Section 9. Beneficiaries of a Kentucky Educational Savings Plan Trust. A benefi-  
11 ciary of a Kentucky Educational Savings Plan Trust shall be granted residency status if the  
12 beneficiary meets the requirements of KRS 164A.330(6).

13  
14 Section 10. Criteria Used in a Determination of Residency Status. (1)(a) A determi-  
15 nation of Kentucky domicile and residency shall be based upon verifiable circumstances  
16 or actions.

17 (b) A single fact shall not be paramount, and each situation shall be evaluated to  
18 identify those facts essential to the determination of domicile and residency.

19 (c) A person shall not be determined to be a Kentucky resident by the performance  
20 of an act that is incidental to fulfilling an educational purpose or by an act performed as a  
21 matter of convenience.

22 (d) Mere physical presence in Kentucky, including living with a relative or friend,  
23 shall not be sufficient evidence of domicile and residency.

1 (e) A student or prospective student shall respond to all requests for information re-  
2 garding domicile or residency requested by an institution.

3 (2) The following facts, although not conclusive, shall have probative value in their  
4 entirety and shall be individually weighted, appropriate to the facts and circumstances in  
5 each determination of residency:

6 (a) Acceptance of an offer of full-time employment or transfer to an employer in  
7 Kentucky or contiguous area while maintaining residence and domicile in Kentucky;

8 (b) Continuous physical presence in Kentucky while in a nonstudent status for the  
9 twelve (12) months immediately preceding the start of the academic term for which a  
10 classification of Kentucky residency is sought;

11 (c)1. Filing a Kentucky resident income tax return for the calendar year preceding  
12 the date of application for a change in residency status; or

13 2. Payment of Kentucky withholding taxes while employed during the calendar year  
14 for which a change in classification is sought;

15 (d) Full-time employment of at least one (1) year while living in Kentucky;

16 (e) Attendance as a full-time, nonresident student at an out-of-state institution  
17 based on a determination by that school that the person is a resident of Kentucky;

18 (f) Abandonment of a former domicile or residence and establishing domicile and  
19 residency in Kentucky with application to or attendance at an institution following and inci-  
20 dental to the change in domicile and residency;

21 (g) Obtaining licensing or certification for a professional and occupational purpose  
22 in Kentucky;

23 (h) Payment of real property taxes in Kentucky;

1 (i) Ownership of real property in Kentucky, if the property was used by the student  
2 as a residence preceding the date of application for a determination of residency status;

3 (j) Marriage of an independent student to a person who was domiciled in and a res-  
4 ident of Kentucky prior to the marriage; and

5 (k) The extent to which a student is dependent on student financial aid in order to  
6 provide basic sustenance.

7 (3) Except as provided in subsection (4) of this section, the following facts, because  
8 of the ease and convenience in completing them, shall have limited probative value in a  
9 determination that a person is domiciled in and is a resident of Kentucky:

10 (a) Kentucky automobile registration;

11 (b) Kentucky driver's license;

12 (c) Registration as a Kentucky voter;

13 (d) Long-term lease of at least twelve (12) consecutive months of noncollegiate  
14 housing; and

15 (e) Continued presence in Kentucky during academic breaks.

16 (4) The absence of a fact contained in subsection (3) of this section shall have sig-  
17 nificant probative value in determining that a student is not domiciled in or is not a resident  
18 of Kentucky.

19  
20 Section 11. Effect of a Change in Circumstances on Residency Status. (1) If a per-  
21 son becomes independent or if the residency status of a parent or parents of a dependent  
22 person changes, an institution shall reassess residency either upon a request by the stu-  
23 dent or a review initiated by the institution.

1 (2) Upon transfer to a Kentucky institution, a student's residency status shall be as-  
2 sessed by the receiving institution.

3 (3) A reconsideration of a determination of residency status for a dependent person  
4 shall be subject to the provisions for continuous enrollment, if applicable.

5  
6 Section 12. Student Responsibilities. (1) A student shall report under the proper res-  
7 idency classification, which includes the following actions:

8 (a) Raising a question concerning residency classification;

9 (b) Making application for change of residency classification with the designated  
10 office or person at the institution; and

11 (c) Notifying the designated office or person at the institution immediately upon a  
12 change in residency.

13 (2) If a student fails to notify an institutional official of a change in residency, an in-  
14 stitutional official may investigate and evaluate the student's residency status.

15 (3)(a) If a student fails to provide, by the date specified by the institution, information  
16 required by an institution in a determination of residency status, the student shall be noti-  
17 fied by the institution that the review has been canceled and that a determination has been  
18 made.

19 (b) Notification shall be made by registered mail, return receipt requested.

20 (c) Notification shall be made within ten (10) calendar days after the deadline for  
21 receipt of materials has passed.

22 (4)(a) The formal hearing conducted by an institution and the final recommended  
23 order shall be a final administrative action with no appeal to the Council on Postsecondary

1 Education.

2 (b) A formal administrative hearing conducted by the Council on Postsecondary Ed-  
3 ucation for residency determinations related to eligibility for the Academic Common Mar-  
4 ket and Regional Contract Programs shall be conducted pursuant to the provisions of KRS  
5 Chapter 13B and 13 KAR 2:070. The recommended order issued by the President of the  
6 Council shall be a final administrative action.

7 (5) A student shall not be entitled to appeal a determination of residency status if  
8 the determination made by an institution is because a student has failed to meet pub-  
9 lished deadlines for the submission of information as set forth in subsection (3) of this sec-  
10 tion. A student may request a review of a determination of residency status in a subse-  
11 quent academic term.

12

13 Section 13. Institutional Responsibilities. Each institution shall:

14 (1) Provide for an administrative appeals process that includes a residency appeals  
15 officer to consider student appeals of an initial residency determination and which shall  
16 include a provision of fourteen (14) days for the student to appeal the residency appeals  
17 officer's determination;

18 (2) Establish a residency review committee to consider appeals of residency deter-  
19 minations by the residency appeals officer. The residency review committee shall make a  
20 determination of student residency status and notify the student in writing within forty-five  
21 (45) days after receipt of the student appeal;

22 (3) Establish a formal hearing process as described in Section 14 of this adminis-  
23 trative regulation; and

1 (4) Establish written policies and procedures for administering the responsibilities  
2 established in subsections (1), (2), and (3) of this section and that are:

3 (a) Approved by the institution's governing board;

4 (b) Made available to all students; and

5 (c) Filed with the council.  
6

7 Section 14. Formal Institutional Hearing. (1) A student who appeals a determination  
8 of residency by a residency review committee shall be granted a formal hearing by an in-  
9 stitution if the request is made by a student in writing within fourteen (14) calendar days  
10 after notification of a determination by a residency review committee.

11 (2) If a request for a formal hearing is received, an institution shall appoint a hearing  
12 officer to conduct a formal hearing. The hearing officer shall:

13 (a) Be a person not involved in determinations of residency at an institution except  
14 for formal hearings; and

15 (b) Not be an employee in the same organizational unit as the residency appeals  
16 officer.

17 (3) An institution shall have written procedures for the conduct of a formal hearing  
18 that have been adopted by the board of trustees or regents, as appropriate, and that pro-  
19 vide for:

20 (a) A hearing officer to make a recommendation on a residency appeal;

21 (b) Guarantees of due process to a student that include:

22 1. The right of a student to be represented by legal counsel; and

23 2. The right of a student to present information and to present testimony and infor-

1 mation in support of a claim of Kentucky residency; and

2 (c) A recommendation to be issued by the hearing officer.

3 (4) An institution's formal hearing procedures shall be filed with the Council on  
4 Postsecondary Education and shall be available to a student requesting a formal hearing.

5

6 Section 15. Cost of Formal Hearings. (1) An institution shall pay the cost for all res-  
7 idency determinations including the cost of a formal hearing.

8 (2) A student shall pay for the cost of all legal representation in support of the stu-  
9 dent's claim of residency.

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Date

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Chair  
Council on Postsecondary Education

APPROVED AS TO FORM:

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Date

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Travis Powell, General Counsel  
Council on Postsecondary Education

REGULATORY IMPACT ANALYSIS  
AND TIERING STATEMENT

Administrative Regulation 13 KAR 2:045. *Determination of residency status for admission and tuition assessment purposes.*

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- (1) Provide a brief summary of:
  - (a) What this administrative regulation does: This administrative regulation sets the criteria for determining whether a student is, or is not, a Kentucky resident for the purpose of admissions to a state-supported institution, or for the purpose of assessing tuition.
  - (b) The necessity of this administrative regulation: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents.
  - (c) How this administrative regulation conforms to the content of the authorizing statutes: KRS 164.020(8) requires the Council on Postsecondary Education to determine tuition and approve the minimum qualifications for admission to a state postsecondary education institution and authorizes the Council to set different tuition amounts for residents of Kentucky and for nonresidents. KRS 164.020(29) empowers the Council to promulgate administrative regulations to carry out this and other duties.
  - (d) How this administrative regulation currently assists or will assist in the effective administration of the statutes: This administrative regulation establishes the procedure and guidelines for determining the residency status of a

student who is seeking admission to, or who is enrolled at, a state-supported postsecondary education institution.

- (2) If this is an amendment to an existing administrative regulation, provide a brief summary of:
  - (a) How the amendment will change this existing administrative regulation:

This amendment will allow a person eligible for benefits under the federal Post-9/11 Veterans Educational Assistance Act of 2008 (38 U.S.C. Section 3301 et seq.) or any other federal law authorizing educational benefits for veterans to be entitled to Kentucky resident status for purposes of admission and tuition at public postsecondary institutions in Kentucky.
  - (b) The necessity of the amendment to this administrative regulation: In August 2014, President Obama signed into law the Veterans Access, Choice and Accountability Act of 2014. Section 702 of the Act requires public institutions to charge in-state tuition to veterans serving at least 90 days who enroll within three (3) years of discharge from active duty, as well as certain individuals who receive federal education benefits through those veterans. If institutions are not able to comply with this requirement by July 1, 2015, the Veteran's Administration (VA) will disapprove them for all Montgomery and Post-9/11 GI Bill educational assistance. As currently constituted, 13 KAR 2:045 would require covered individuals who do not otherwise meet the requirements for residency to be charged the out-of-state tuition rate. Therefore, the Council must amend 13 KAR 2:045 accordingly to ensure that students at Kentucky's public postsecondary institutions can continue to receive Montgomery and Post-9/11 GI Bill educational assistance.
  - (c) How the amendment conforms to the content of the authorizing statutes:

The amendment conforms with the requirements of KRS 164.020(8) by further defining residency for purposes of tuition and admission. It conforms with Section 702 of the Veteran's Access, Choice and Accountability Act of 2014 by ensuring that the required class of individuals will be charged the in-state rate of tuition.
  - (d) How the amendment will assist in the effective administration of the stat-

utes: The amendment ensures that public institutions are in compliance with federal law so their eligible students can continue receiving Post 9/11 and Montgomery GI Bill benefits.

(3) List the type and number of individuals, businesses, organizations, or state and local governments affected by this administrative regulation: This regulation affects all public colleges and universities in Kentucky as well as all students attending those institutions.

(4) Provide an assessment of how the above group or groups will be impacted by either the implementation of this administrative regulation, if new, or by the change if it is an amendment, including:

(a) List the actions that each of the regulated entities identified in question (3) will have to take to comply with this administrative regulation or amendment: Public institutions will need to verify that an applicant is eligible for the in-state tuition rate by obtaining his or her certification of eligibility from the Veterans Benefits Administration. Eligible applicants will need to obtain that certification and provide it to institution.

(b) In complying with this administrative regulation or amendment, how much will it cost each of the entities identified in question (3): Cost of compliance will vary depending on the number of students in attendance that would have otherwise been required to pay the out-of-state rate. However, the potential loss of all Post 9/11 and Montgomery GI Bill funding would be much greater than what will be lost by charging the lower in-state rate to eligible individuals not already receiving the in-state rate.

(c) As a result of compliance, what benefits will accrue to the entities identified in question (3): See 4(b) above.

(5) Provide an estimate of how much it will cost to implement this administrative regulation:

(a) Initially: We estimate that there will be no additional cost in implementing the proposed changes to the regulation.

(b) On a continuing basis: We estimate that there will be no additional costs on a continuing basis to implement the proposed changes to the regulation.

- (6) What is the source of the funding to be used for the implementation and enforcement of this administrative regulation: General Fund appropriations.
- (7) Provide an assessment of whether an increase in fees or funding will be necessary to implement this administrative regulation, if new, or by the change if it is an amendment: No. Implementation of this amendment does not require an increase in fees or funding.
- (8) State whether or not this administrative regulation establishes any fees or directly or indirectly increases any fees: No.
- (9) TIERING: Is tiering applied? Tiering is not applied. The requirements for determinations of residency in the regulation apply to all students applying to state postsecondary education institutions.

## FISCAL NOTE ON STATE OR LOCAL GOVERNMENT

Regulation No. 13 KAR 2:045. Determination of residency status for admission and tuition assessment purposes.

Contact Person: Travis Powell, 502-573-1555

1. What units, parts or divisions of state or local government (including cities, counties, fire departments, or school districts) will be impacted by this administrative regulation? Public colleges and universities in Kentucky are impacted.

2. Identify each state or federal statute or federal regulation that requires or authorizes the action taken by the administrative regulation. KRS 164.020 and PL 113-146 Veterans Access, Choice and Accountability Act (Section 702).

3. Estimate the effect of this administrative regulation on the expenditures and revenues of a state or local government agency (including cities, counties, fire departments, or school districts) for the first full year the administrative regulation is to be in effect.

(a) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for the first year? None.

(b) How much revenue will this administrative regulation generate for the state or local government (including cities, counties, fire departments, or school districts) for subsequent years? None.

(c) How much will it cost to administer this program for the first year? Determinations of residency are done as part of the larger admissions process at public institutions in Kentucky. As such, it is difficult to pull this aspect out of the admission process and determine its cost of administration. While staff time and other resources are used to make residency determinations, they dictate how much an institution can charge an individual for tuition and are therefore necessary in order to collect those funds.

(d) How much will it cost to administer this program for subsequent years? See 3(c).

Note: If specific dollar estimates cannot be determined, provide a brief narrative to explain the fiscal impact of the administrative regulation.

Revenues (+/-):

Expenditures (+/-):

Other Explanation: N/A



## Reasonable Security and Breach Investigation Procedures and Practices for Public Institutions of Postsecondary Education

**ACTION:** The staff recommends that the Council approve the proposed policy for public postsecondary institution "reasonable breach investigation procedures and practices" as required by KRS 61.932(1)(b).

The Personal Information Security and Breach Investigation Procedures and Practices Act, enacted in the 2014 Regular Session, also known as House Bill 5 or the "Cyber Security Bill," requires state and local governments to implement policies and procedures to protect confidential, sensitive personal information and notify individuals if their information has been compromised.

KRS 61.932(1)(b) requires that Kentucky public colleges and universities (hereinafter referred to as "institutions") establish and implement "reasonable security and breach investigation procedures and practices" in accordance with policies established by the Council on Postsecondary Education. KRS 61.931(8) defines "reasonable security and breach investigation procedures and practices" as "data security procedures and practices developed in good faith and set forth in a written security information policy."

The Council's policy for institutional "reasonable security and breach investigation procedures and practices" is set forth in the following attachment. The policy identifies areas that should be addressed in order to protect personal information from unauthorized disclosure as well as procedures to be followed when an actual or suspected breach occurs.

Staff preparation by Travis Powell

# Reasonable Security and Breach Investigation Procedures and Practices for Public Institutions of Postsecondary Education

Adopted by CPE: February 13, 2015

## **Background**

The *Personal Information Security and Breach Investigation Procedures and Practices Act*, enacted in the 2014 Regular Session, also known as House Bill 5 or the “Cyber Security Bill,” requires state and local governments to implement policies and procedures to protect confidential, sensitive personal information and notify individuals if their information has been compromised.

As such, KRS 61.932(1)(b) requires that Kentucky public colleges and universities (hereinafter referred to as “institutions”) establish and implement “reasonable security and breach investigation procedures and practices” in accordance with policies established by the Council on Postsecondary Education. KRS 61.931(8) defines “reasonable security and breach investigation procedures and practices” as “data security procedures and practices developed in good faith and set forth in a written security information policy.”

The Council’s polices for institutional “reasonable security and breach investigation procedures and practices” are set forth below.

## **Data Security**

KRS 61.932(1)(a) states that “an agency that maintains or otherwise possesses personal information, regardless of the form in which the personal information is maintained, shall implement, maintain, and update security procedures and practices, including taking any appropriate corrective action, to protect and safeguard against security breaches.” KRS 61.931(6) defines “personal information” as follows:

An individual's first name or first initial and last name; personal mark; or unique biometric or genetic print or image, in combination with one (1) or more of the following data elements:

- (a) An account number, credit card number, or debit card number that, in combination with any required security code, access code or password, would permit access to an account;
- (b) A Social Security number;
- (c) A taxpayer identification number that incorporates a Social Security number;
- (d) A driver's license number, state identification card number, or other individual identification number issued by any agency;
- (e) A passport number or other identification number issued by the United States government; or
- (f) Individually identifiable health information as defined in 45 C.F.R. sec. 160.103, except for education records covered by the Family Educational Rights and Privacy Act, as amended, 20 U.S.C. sec. 1232g.

KRS 61.933(5) states that the notification of security breach provisions shall not apply to personal information in certain circumstances, including that which “is publicly and lawfully made available to the general public from federal, state, or local government records.” As such, the Council does not consider the Security Breach Investigation and Response Procedures and Practices to apply to personal information listed in KRS 61.933(5).

Institutions shall control, maintain and transfer physical and electronic media containing personal information utilizing measures that protect against unauthorized access. As such, institutions shall adopt procedures and practices for data security that, at a minimum, address the areas set forth below and any other requirements by state or federal law:

- Access Control – Only authorized individuals shall be permitted access to personal information. Institutions shall determine the requirements for access to personal information and designate responsibility for making those decisions.
- Acceptable Use – Institutions shall identify acceptable uses of personal information.
- Audit and Accountability – Institutions shall maintain processes in order to monitor and determine system vulnerabilities and implement measures to remediate identified vulnerabilities.
- Security Measures– Security measures shall be implemented in order to prevent unauthorized access or disclosure of personal information. Depending on the media involved (i.e., electronic versus physical), these security measures may include, but are not limited to: password protection, user identification/authentication procedures, encryption, de-identification procedures, firewalls, system security agent software, data destruction procedures and physical access controls.
- Data Classification – Institutions shall maintain a process for classifying data for security purposes in order to determine what security measures, if any, will be implemented in order to protect against unauthorized access or disclosure.
- Risk Assessment/Data Classification – Sensitivity of personal information shall be assessed and classified so that appropriate security measures may be instituted commensurate with the risk of unauthorized disclosure.
- Awareness and Training – Information should be made readily available to users on what constitutes personal information, its acceptable uses, and responsibilities related to its access and notification regarding a potential security breach.
- Sanctions – Institutions shall implement appropriate sanctions in accordance with the Institution’s policies, procedures and guidelines for user violations of applicable data security policies.

### **Data Security Breach Investigation and Response Procedures and Practices**

KRS 61.931(9) defines a “security breach” as follows:

1. The unauthorized acquisition, distribution, disclosure, destruction, manipulation, or release of unencrypted or unredacted records or data that compromises or the agency or nonaffiliated third party reasonably believes may compromise the security, confidentiality, or integrity of personal information and result in the likelihood of harm to one (1) or more individuals; or
2. The unauthorized acquisition, distribution, disclosure, destruction, manipulation or release of encrypted records or data containing personal information along with the

confidential process, or key to unencrypt the records, or data that compromises - or the agency or nonaffiliated third party reasonably believes - may compromise the security, confidentiality or integrity of personal information and result in the likelihood of harm to one (1) or more individuals.

"Security breach" does not include the good-faith acquisition of personal information by an employee, agent, or nonaffiliated third party of the agency for the purposes of the agency if the personal information is used for a purpose related to the agency and is not subject to unauthorized disclosure.

In the event of a potential security breach or incident, institutions shall follow a plan to identify an incident and respond appropriately. An institution shall adopt procedures and practices for security breaches that, at a minimum, address the areas listed below and any other applicable requirements of state or federal law.

### **Overview**

The steps involved in handling an information security incident can be categorized into five (5) phases:

1. Preparation, Identification and Assessment
2. Containment
3. Eradication
4. Remediation/Recovery
5. Post-Incident Activities and Lessons Learned

### **Definitions**

- I. Information Security Incident - any real or suspected event, accidental or intentional, which may compromise the security of personal information. Examples of incidents include:
  - a. Attempts (either failed or successful) to gain unauthorized access to personal information.
  - b. Theft or other loss of a laptop, desktop, smartphone or other device that contains personal information, whether or not such device is owned by the institution.
  - c. The unauthorized or inappropriate use of a system or device for the viewing, transmitting, processing or storing of data.
  - d. Changes to system hardware, firmware, or software characteristics without the owner's knowledge, instruction or consent.
- II. Information Security Incident Response Team (ISIRT) – members of the response team who triage, resolve, classify and track information security incidents for the institution. The ISIRT assists in the coordination of efforts by external resources, such as law enforcement agencies and other institutions.

### **Preparation, Initial Identification and Assessment**

Preparation for an information security incident is key to enabling an institution to react quickly and appropriately once an incident is suspected in order to minimize any negative impact. Those with access to personal information should know what constitutes an information security incident, as well as what actions to take should one occur. Institutions should continuously monitor potential threats and learn how to eliminate or mitigate them. Roles and responsibilities should be outlined and communicated to institutional staff, particularly those who may serve as an initial point of contact for the reporting of an incident and on an ISIRT.

When an individual at an institution identifies an information security incident, he or she shall take steps to immediately stop or contain the suspected breach, if possible. After any appropriate initial containment activities by the individual have been completed, he or she shall immediately report the incident as indicated by the institution and further immediate steps may be taken to stop or contain the suspected breach.

When an information security incident is reported, the responsible individual(s) at the institution shall conduct an initial investigation to determine if an information security incident has occurred. As part of the investigation, immediate steps should be taken to minimize the potential for further disclosure of personal information as necessary, including the restriction of information system access or operations. This initial investigation should be brief, but substantive enough to determine if an information security incident has occurred.

If after the initial investigation it is determined that an information security incident has not occurred, the responsible individual shall document both the event and his or her investigative efforts, and close the matter.

If it is determined after initial investigation that an information security incident has occurred, institutions shall complete a full investigation and assessment of the incident, which may include convening the ISIRT. Representatives comprising the team may vary depending on the nature of the personal information breach; however, at a minimum the ISIRT should include representatives from legal, information technology and public information/media relations.

Duties of the ISIRT shall include, as applicable:

- Identifying individuals affected by the breach.
- Determining exactly what personal information has been compromised and its classification (i.e., level of sensitivity).
- Determining the likely impact of the compromised data's exposure.
- Ensuring that all appropriate actions are immediately taken to prevent any further unauthorized exposure of personal information.
- Fully investigating of the incident, which may include interviewing relevant individuals to learn about the circumstances surrounding the incident and reviewing logs, tapes or other resources.
- If necessary, identifying and engaging consultants, as required to assist the institution in its investigation and/or risk analysis.
- Conducting a root cause analysis of the security breach.
- Within 72 hours of the determination that a security breach has occurred, notifying the commissioner of the Kentucky State Police, the Auditor of Public Accounts, the Attorney General and CPE in accordance with KRS 61.933 on the form prescribed in 200 KAR 1:015.
- Developing a mitigation plan to prevent any further exposure of personal information and risk of harm to anyone affected by the incident, which may include revision of the institutional policies and additional training.
- Determining the appropriate notification requirements and developing an action plan for the delivery of such notices.
- Ensuring compliance at all times with applicable legal and regulatory requirements.
- Keeping institutional leadership informed of the progress of the team.

- Providing oversight of the content and distribution of all internal and external communications about the incident.
- Documenting all activities.

### **Containment**

As the ISIRT begins conducting its investigation of a potential security breach, the containment phase must also commence. The goal of containment is to limit the extent of the incident and prevent the inundation of resources or broadening the damage, with an emphasis on maintaining or restoring business continuity. An incident is contained when no more harm is possible and the focus pivots to the remediation phase. The containment phase may focus on both short-term and long-term containment.

Requirements and considerations during the Containment phase include:

- Documenting all steps.
- Conducting a risk assessment of the incident.
  - Identify number of customers affected.
  - Identify type of breach/attack.
  - Determine how to prioritize identifying the attacker versus continuing or re-establishing business continuity.
  - Identify which systems are damaged or infected by malicious intrusions, if applicable.
  - Identify the exact type of data breach.
  - Interview all personnel involved with the incident.
  - Estimate the projected costs to repair the damage from the organization's perspective and, importantly, the customer's perspective.
  - Create a complete list of compromised accounts.
  - Decide whether to monitor, freeze or close affected accounts, if applicable.
  - Block and reissue credit cards, if needed.
  - Monitor and study affected accounts.
  - Determine fraud patterns.
  - Review/analyze all available logs.
  - Evaluate and respond to potential attack vectors and protect the network from their expansion.

Depending on the nature of the incident, institutions may consider:

- Shutting down affected systems.
- Disconnecting systems from the network.
- Disabling the network.
- Disabling services such as FTP, telnet, e-mail, or any other service that may be affected or may propagate the attack or breach.
- Stopping the attack from more damage by shutting off the power, pulling network cables, or blocking ports.
- Isolating affected systems from other resources.
- Conducting forensics and evidence preservation (e.g., memory dumps, drive images).
- Preserving and handling evidence according to established procedures to maximize successful prosecution of the perpetrator(s).

- Keeping detailed documentation of all evidence including information about personnel who handle evidence or information, time and date of handling, locations where evidence is stored, and security procedures for each step of evidence maintenance.

### **Eradication**

The primary goal during the eradication phase of incident response is to remove any remaining trace(s) of the infection or cause from all network resources after having preserved any evidence needed for prosecution of the perpetrator(s). Once an incident has been isolated and contained, institutions should pursue an eradication strategy. It is important that institutions examine and eradicate all traces of the attack or breach in case a perpetrator left behind malware or logic bombs to reactivate an attack or breach after being reconnected to internal or external networks.

Examples of eradication steps include:

- Deleting infected files.
- Removing malware, such as Trojans and root kits.
- Disabling compromised accounts.
- Deleting fraudulent accounts.
- Blocking vulnerable application ports.
- Restoring compromised/corrupted operating system files.
- Replacing physical data drives.
- Performing a complete system reinstall.
- Changing host names, DNS entries or IP addresses.

It may also be practical during the eradication phase to install security controls and surveillance to prevent similar future attacks and improve physical security of equipment.

### **Remediation/Recovery**

This phase ensures that the system returns to a fully operational status. It's possible, even likely, that some of these steps may be addressed during the eradication phase. The type and scope of the security incident will dictate the recovery steps. Response teams need to determine whether to restore a compromised system or to rebuild the system or systems entirely. This will rely on presumably credible backups. Teams must make every effort to ensure restoration of system data. An incident could potentially corrupt data for many months before discovery. Therefore, it is very important that as part of the incident response process, institutions determine the duration of the incident.

Examples of remediation/recovery steps include:

- Rebuilding a "clean" system, while the compromised system is still functioning in order to maintain business continuity.
- Re-imaging infected systems.
- Performing a complete system reinstall.
- Improving physical security of equipment.
- Installing surveillance equipment.

### **Post-Incident Activities and Lessons Learned**

At the conclusion of its full investigation and assessment, ISIRT shall prepare a report detailing the incident, the ensuing investigation, the response, and lessons learned. Key participants may also hold a wrap-up meeting to evaluate the incident and the incident handling policy and procedures.

If it is determined that a security breach has occurred and that the misuse of personal information has occurred, or is reasonably likely to occur, an institution shall make the required notifications set forth in KRS 61.933 (see attached). While not required by law, as a best practice if an initial notification of security breach has been made to commissioner of the Kentucky State Police, the Auditor of Public Accounts, the Attorney General and CPE and it is determined that a security breach did not occur and misuse of personal information did not, or is likely to not, occur, an institution should provide follow up notification to those agencies.

### **Nonaffiliated Third Parties**

In accordance with KRS 61.932(b)1. and 2., a nonaffiliated third party that is provided access to personal information by an institution, or that collects and maintains personal information on behalf of an agency shall notify the agency in the most expedient time possible and within seventy-two (72) hours of determination of a security breach relating to the personal information in the possession of the nonaffiliated third party. The notice to the agency shall include all information the nonaffiliated third party has with regard to the security breach at the time of notification. Notice may be delayed if law enforcement notifies the nonaffiliated third party that the notification will impede a criminal investigation or would jeopardize national or homeland security. If notice is so delayed, notification shall be given by the nonaffiliated third party to the agency as soon as reasonably feasible.

In accordance with KRS 61.932(2)(a), agreements executed or amended on or after January 1, 2015, with a nonaffiliated third party resulting in the disclosure of personal information to the nonaffiliated third party shall include the following:

- A requirement that the nonaffiliated third party implement, maintain and update security and breach investigation procedures that are appropriate to the nature of the information disclosed, that are at least as stringent as the security and breach investigation procedures and practices maintained by the institutions and are reasonably designed to protect the personal information from unauthorized access, use, modification, disclosure, manipulation, or destruction.
- Specifications on how the cost of the notification and investigation requirements under KRS 61.933 are to be apportioned when a security breach is suffered by the agency or nonaffiliated third party.

## Committee on Equal Opportunities Report

The Committee on Equal Opportunities met Monday, January 26, 2015, in Frankfort, Kentucky. Following is the status of initiatives, recurring activities, and discussions related to the Committee on Equal Opportunities.

**2015 Meeting Schedule:** The CEO adopted the following schedule of meetings: March 23, May 18, and October 19, 2015.

**Public Postsecondary Education Administrators:** Several universities acquired new leadership over the past year. The following administrators were introduced to the CEO at the January meeting. Each highlighted diversity, equity, and inclusion initiatives that will be implemented across their campus community:

- Eastern Kentucky University: Executive Vice President-Student Success and University Counsel, Dr. Laurie Carter
- Kentucky State University: President Raymond Burse
- University of Kentucky: Associate Provost and Dean of the Graduate School, Dr. Susan Carvalho

**Funding Model Update:** At its November 7, 2013 meeting, the Council passed a resolution acknowledging the need for a comprehensive funding model to be implemented for the 2016-18 biennium. Dr. Bill Payne, Associate Vice President for Budget and Finance, provided an update of the funding steering committee and funding model workgroups at the January CEO meeting.

**SREB Doctoral Scholars Program:** Several of Kentucky's current SREB scholars were invited to attend the January meeting to share their current research with CEO members. The scholars include:

- Jelisa Clark, University of Louisville: Closing the School to Prison Pipeline: Litigation and Civil Rights Appeals
- William Bean, University of Kentucky: Developing scientific identity in pre-service elementary science teachers
- Michael Mejia, University of Kentucky: Health Disparities and Quality of Life Among Rural Cancer Survivors

Planning for the fall 2015 Teaching and Mentoring Institute took place during a meeting of the state Doctoral Scholars Regional Advisory Committee, January 29-30, 2015. The Teaching and Mentoring Institute will be held October 29-November 1, 2015, in Arlington, Virginia.

**Diversity Assessment and Planning:** The CEO, Council of Chief Academic Officers and the Equal Educational Opportunity representatives participated in a joint meeting following the CEO January meeting. The group discussed the alignment of the Strategic Agenda with the Statewide Diversity Policy, cultural competency measures, campus visits, and timelines for development and review.

Staff preparation by Rana Johnson

## Project Lead the Way & Posters at the Capitol

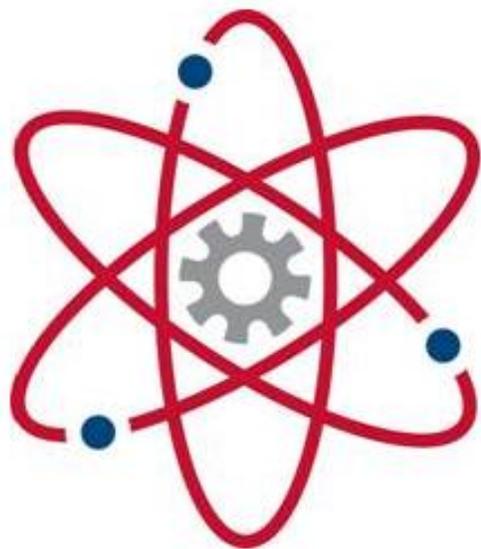
Kentucky Project Lead the Way students, through a partnership with CPE and Posters-at-the-Capitol directors, have been invited to participate with our public universities in their “Posters-at-the-Capitol” program. This program provides undergraduates with the opportunity to engage with faculty on meaningful research projects, enhancing their educational experience and professional development. Posters at the Capitol also provides members of the General Assembly and the Governor a better understanding of the importance of undergraduate immersion in research and creative work.

This year will be the first a high school program has been invited to participate in the event and express their innovative ideas in a way that signals to our elected officials the quality of students feeding into Kentucky’s undergraduate programs. High school students and undergraduates who participate in activities like Posters at the Capitol are more likely to pursue graduate research opportunities that provide the next generation of moonshot ideas and economic advancement for Kentucky.

Martha Driver and Kathleen Thomas from Elkhorn Crossing School in Georgetown will present their research, Continuation of an Antibacterial Bite Guard at the Council meeting.

- Many Kentuckians use bite guards to address the problem of teeth grinding. Unfortunately, these guards are full of bacteria that can lead to further problems such as mouth diseases, bad breath, and infections. The students’ goal last year was to solve this problem through the creation of an antibacterial bite guard. This year, the main focus of their research has been to identify specific bacterium on the bite guard that the antibacterial agent, chlorhexidine, targets and to see how long the antibacterial agent lasts in the bite guard.
- This project should result in a better understanding of the types of bacteria that the antibacterial agent target, as well as the creation of an antibacterial bite guard that lasts for an extensive amount of time. Ideally, the new product will not only help teeth grinding problems, but also with the health issues that come from the use of a non-antibacterial bite guard.

The students’ mentor on the project is Dr. Juley M. Adams, professor of biomedical sciences and Project Lead the Way master teacher.



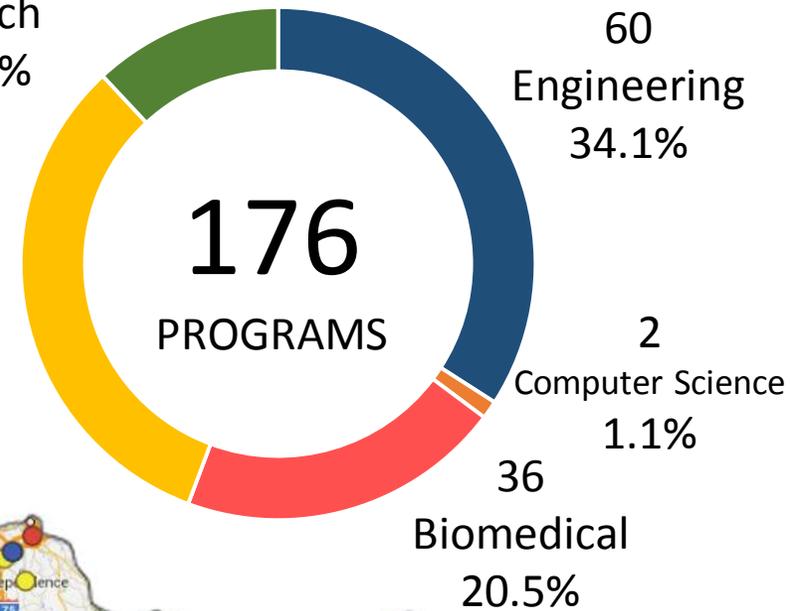
KENTUCKY

PLTW

 **Kentucky Council on  
Postsecondary Education**



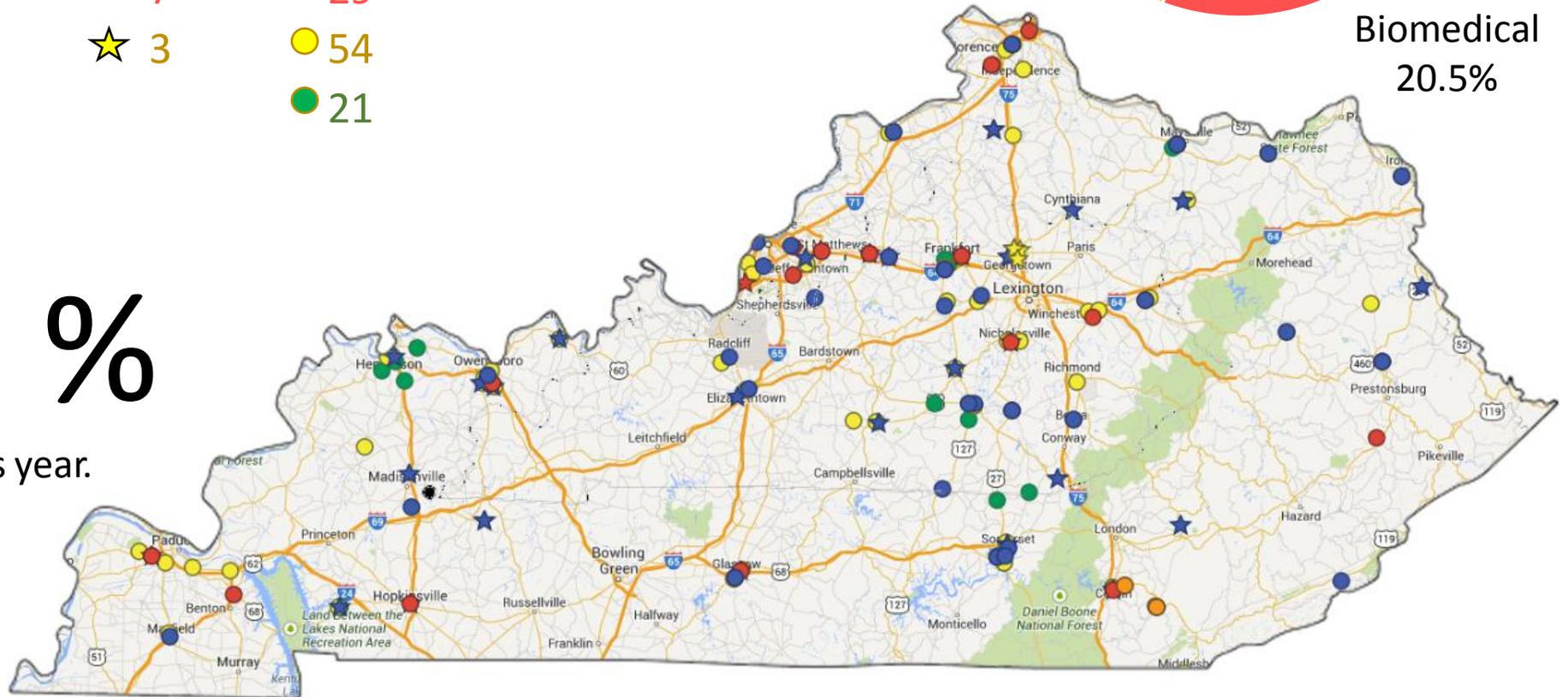
# PLTW Programs August 2014

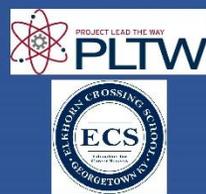
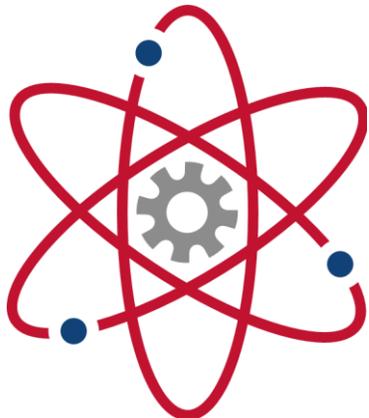


	Certified	Non-Certified
Pathway to Engineering	★ 27	● 33
Computer Science		● 2
Biomedical	★ 7	● 29
Gateway	★ 3	● 54
Launch		● 21

Program Growth In 2014 **17 %**

All areas increased this year.

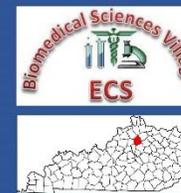




# Design and Development of an Antibacterial Bite Guard

Maria Driver, Katie Thomas, and Julye Adams, Ph.D.

Elkhorn Crossing School, Biomedical Sciences Village, Georgetown, KY 40324



## ABSTRACT

Many people face the problem of grinding their teeth at night and the usual treatment is the use of a bite guard. However, traditional bite guards can harbor bacteria, and their use can lead to further problems such as gum and mouth disease, bad breath, and oral infections. This two year project is being completed in two stages. Stage 1, the design and creation of an antibacterial bite guard was successfully completed during the last year. Using accepted dental protocols, a traditional (control) bite guard was fabricated and another was fabricated that included chlorhexidine as an antibacterial agent. The guards were soaked in a 1% saline solution that had been gargled by a human to simulate mouth conditions. Swabs from the guards were taken and grown on LB agar plates for 48 hours at 37 °C. The results showed that the chlorhexidine guard had less bacterial growth (15% of plate) versus the control (87% of plate). Stage 2 of the project is currently underway. The main focus of this stage is to determine the specific bacterial strain(s) that are on the control bite guard that the antibacterial agent, chlorhexidine, targets. It will also be determined whether there are any different strains of bacteria present on the chlorhexidine treated guard. Additionally, how long the antibacterial agent lasts in the bite guard will be determined. The final product of this project will be an improved bite guard that is ready to be used. The constants in our project will be the amount of chlorhexidine added to the bite guard, and the way in which we will simulate a mouth. The control of the experiment will be the traditional bite guard that you would normally receive from a dentist. The anticipated results will be that the chlorhexidine bite guard will have significantly less bacterial growth than the regular bite guard, and will maintain the chlorhexidine agent for an extensive amount of time. The results of this project will lead to a better understanding of the types of bacteria that grow in the mouth and help resolve health issues that come from the use of non-antibacterial bite guards.

## BACKGROUND

Five to twenty percent of Americans suffer from grinding their teeth at night and the usual treatment is the use of a bite guard. However, traditional bite guards can harbor bacteria, and their use can lead to further problems such as gum and mouth disease, bad breath, and oral infections. It has been estimated that there are over 100 million different bacterium in every milliliter of saliva from more than 600 different species. Traditional bite guards today come with solutions designed to get rid of all this bacteria, however this routine step is more than often skipped over by bite guard users. With this project, this routine step wont be as necessary due to the antibacterial agent chlorhexidine that is added to a traditional bite guard. This antibacterial agent will minimize the bacterial growth which will result in minimizing the amount of oral infections that are caused by the bacteria.



Figure 1. Example of Tooth Decay

## MATERIALS AND METHODS



Figure 2. Diamond Wheel®



Figure 3. Sta-Vac™



Figure 4. Sta-Vac™



Figure 5. Control Product

Creation: (Figures 2-9) Bite guards were made using traditional methods as used by Designing Smiles Dentistry. One bite guard was modified to include chlorhexidine in between the two layers of thermoform splint.

Testing Phase 1: Bacterial growth was determined after 48 hour incubated exposure to saliva solution.

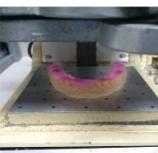
Testing Phase 2 ( ongoing project): New bite guard will be produced using pervious methods described. Bacterial growth over time intervals such as 12, 24, 48 & 72 hours will be determined to test how long the antibacterial agent chlorhexidine lasts in the guard as will the specific types of bacteria the chlorhexidine targets.



Figure 6. Thermaknife In Use



Figure 7. Thermaknife



Figures 8. & 9. Chlorhexidine Gauze In Sta-Vac™

## RESULTS

After 48 hours of letting the bacteria grow on the bite guards, our hypothesis of the bite guard containing the Chlorhexidine will grow less bacteria was concluded with success. As seen in figure 10, the Chlorhexidine bite guard had significantly less growth than the regular bite guard. After 48 hours when the regular control bite guard had a growth rate of 87%, the Chlorhexidine bite guard only had 15% growth.



Figure 10. Bacterial Growth From Guards (Left: Sample from the Chlorhexidine-treated guard; Right: Sample from the traditional control)

### Bacterial growth in 48 Hours

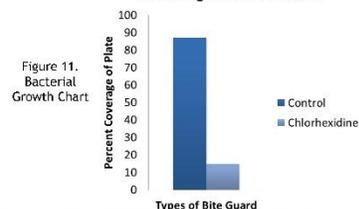


Figure 11. Bacterial Growth Chart

## PREDICTED RESULTS

It is estimated that there are over 100 million bacteria per milliliter of saliva in the human mouth, from more than 600 different species. Of these species, it is predicted that two of the most common types will be targeted most by the chlorhexidine-treated bite guard. These are *Streptococcus mutans* (Figure 12.), a gram positive bacterium that cause tooth decay; and *Porphyromonas gingivalis* (Figure 13.), a gram negative bacterium that causes gum disease. Chlorhexidine targets both gram positive and gram negative bacteria.



Figure 12. Streptococcus Mutans

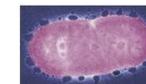


Figure 13. Porphyromonas Gingivalis

### Bacterial Growth Over Time

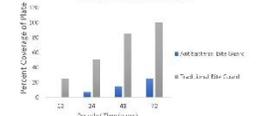


Figure 14. Predicted Bacterial Growth Over Time (12, 24, 48, 72 hours)

## SUMMARY

This is now the only bite guard made that can clean itself. This helps out because this will ultimately lessen the oral diseases cause by the bacteria that grows in the mouth and is transferred onto the bite guard. This also helps out when it comes to the routinely cleansing that is required on the non-antibacterial bite guard. Missing a night of cleaning with the antibacterial bite guard will not cause as much bacterial growth that it would on the regular non-antibacterial bite guard. The bite guards are seen in figure 15.



Figure 15. A New Successful Antibacterial Bite Guard Has Been Made

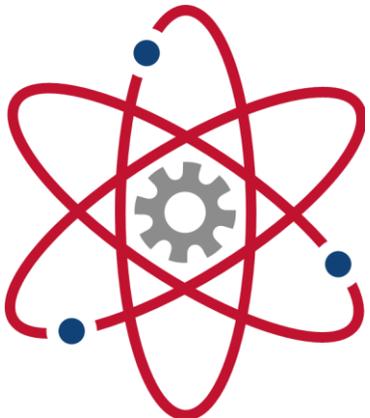
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- Christy Thomas, C.O.O.
- Elkhorn Crossing School
- Dr. Adams
- Miss Orear





# Elementary Program

## ACTIVATE A LIFELONG INTEREST IN STEM THROUGH EXPLORATION AND DISCOVERY

Giving students early experiences in the world of science, technology, engineering, and math (STEM) helps students learn to feel comfortable seeking solutions to new problems, connect classroom lessons to the world around them, and discover how to employ critical thinking. A solid foundation of skills such as these puts students on an early path to success, from classroom to career.

The earlier students develop an interest in STEM, the better.

As much as 65 percent of scientists and graduate students developed their interest in science in elementary school. Engaging students now builds confidence, grows interest, and sets them on course for strong accomplishments in middle school, high school, and beyond.

How can we provide students with the chance to love STEM at a younger age?

### PLTW Launch

Through PLTW Launch™, designed for kindergarten through fifth grade, students become problem solvers. Students use structured approaches, like the engineering design process. They apply STEM knowledge, skills, and habits of mind, and discover that trying different approaches and solutions is an essential part of the learning process. As teachers and students learn and discover together, education becomes more engaging and meaningful for everyone.

PLTW Launch was designed to offer maximum flexibility and work in a variety of settings and scenarios. The curriculum includes 12 modules aligned to grade-level standards, with an additional 12 modules available for the 2015-16 school year. The 10-hour modules are presented in pairs that combine to create a thematic unit. Teachers and schools have the flexibility to introduce the modules that they want, when they want, at the grade level they want.

### PLTW Launch Curriculum

#### Modules Aligned to Kindergarten Standards

##### Structure and Function: Exploring Design

In this module, students are introduced to the design process and discover how engineering influences their lives. They examine items around them that were designed by engineers and apply what they have learned to a new tool design.

##### Structure and Function: Pushes and Pulls

Students investigate the effects of pushes and pulls on the motion of an object, developing knowledge and skills related to forces of differing strengths and directions. Students refine a design and reflect on the effects of modifying the strength or direction of a force.

### PLTW Launch Curriculum

#### Modules Aligned to First-Grade Standards

##### Light and Sound

In this module, students explore light and sound, including vibration from sound waves and the effect of different materials on the path of a beam of light. Projects include creating and evaluating a device that uses light or sound to communicate over a distance.

##### Light: Observing the Sun, Moon, and Stars

Students monitor, identify, and describe patterns of the sun, moon, and stars. Using what they have learned, students create, test, and improve upon a device designed to solve a problem related to the sun's patterns.

#### Modules Aligned to Second-Grade Standards

##### Materials Science: Properties of Matter

Students examine and classify different kinds of materials by characteristics including color, texture, and heat conduction. After analyzing data from materials testing, students apply their skills to determine the best material to solve a design problem.

##### Materials Science: Form and Function

During this module, students research the ways animals disperse seeds and pollinate plants. They use critical thinking skills to design and build a tool that mimics one of these methods, focusing on how to maximize the efficiency of their creation and analyzing how it was informed by nature.

#### Modules Aligned to Third-Grade Standards

##### Stability and Motion: Science of Flight

In this module, students explore the forces involved in flight, as well as Newton's Laws of Motion, by experimenting with the creation and modification of a model glider.

##### Stability and Motion: Forces and Interactions

Students study simple machines such as wheels and axles, levers, and the inclined plane, along with magnetic interactions between objects. Students apply new skills with hands-on projects.

#### Modules Aligned to Fourth-Grade Standards

##### Energy: Collisions

Students explore how mechanisms change energy by transferring direction, speed, type of movement, and force. Students use what they discovered about energy transfer in collisions to develop a vehicle restraint system.

##### Energy: Conversions

Students learn about forms of energy, with a focus on how energy can be converted to meet a human need or want. Students apply knowledge by designing a system that is able to store energy and then convert the energy to a usable form as it is released.

#### Modules Aligned to Fifth-Grade Standards

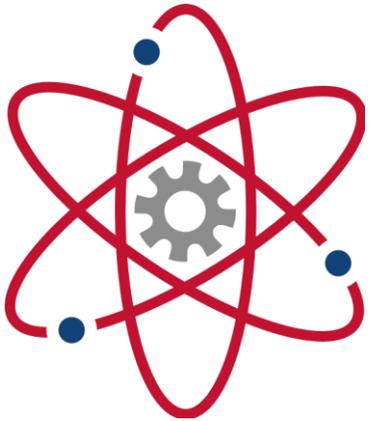
##### Robotics and Automation

In Robotics and Automation, students delve into how robots are used in today's world and the impact of their use on society and the environment. Students build and test mobile robots that may be controlled remotely and participate in a project related to environmental disaster cleanup.

##### Robotics and Automation: Challenge

This module helps students develop programming skills in a variety of platforms, including tablet applications and browser-based programming environments. Students build and program an autonomous robot to solve a real-world design problem.

# Middle School Program



## ENCOURAGE EXPLORATION OF THE UNKNOWN WHILE IGNITING STUDENTS' INTEREST AND CONFIDENCE IN STEM

Today's students need to possess certain knowledge and skills to thrive, no matter their chosen life and career paths. Being comfortable taking risks, adept at collaboration, confident in the face of significant challenges, and skilled at carving out unique solutions are just a few of these essential skills. With access to hands-on, project-based STEM curriculum that emphasizes critical thinking and problem solving, these professional and life skills are easily within reach of tomorrow's leaders.

The opportunities in STEM are tremendous. By 2018, the United States will have more than 1.2 million unfilled STEM jobs. STEM occupation options are varied, including aerospace engineer and zoologist, computer programmer and architect, which affords students a multitude of options, no matter their interests. Despite this vast landscape of opportunity, a staggering 75 percent of students talented in math and science decide not to pursue STEM in college.

If young people are to pursue this world of possibility, they need inspiration. They need to see how what they learn is relevant to their lives.

How do we prepare and inspire students to hold onto their natural curiosity in the world around them and continue STEM learning in high school and beyond?

## PLTW Gateway

Middle school is the perfect time for students to explore and learn that there is more than one way to reach a solution. PLTW Gateway™ provides engineering and biomedical science curriculum for middle school students that challenges, inspires, and offers schools variety and flexibility.

Through topics like robotics, flight and space, and DNA and crime scene analysis, middle school students engage their natural curiosity and imagination in creative problem solving. PLTW's Gateway program is a strong foundation for further STEM learning in high school and beyond, challenging students to solve real-world problems, such as cleaning up oil spills and designing sustainable housing solutions. Using the same advanced software and tools as those used by the world's leading companies, students learn how to apply science, technology, engineering, and math to their everyday lives.

PLTW Gateway is divided into eight independent, nine-week units, assuming a 45-minute class period. The Gateway program is designed to be taught in conjunction with a rigorous academic curriculum. Schools that offer the program implement both Foundation Units and may add any combination of the Specialization Units.

U.S. Dept. of Commerce Economics and Statistics Administration, 2011; Infographic: The Math-Science Shortage, Getting Smart, 2011

## PLTW Gateway Curriculum

### Foundation Units

#### Design & Modeling

Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research and ideas in their engineering notebooks. Using Autodesk® design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

#### Automation & Robotics

Students trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics® platform to design, build, and program real-world objects, such as traffic lights, toll booths, and robotic arms.

### Specialization Units

#### Energy & the Environment

Students think toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. They design and model alternative energy sources and evaluate options for reducing energy consumption.

#### Flight & Space

The exciting world of aerospace comes alive through Flight & Space. Students explore the science behind aeronautics and use their knowledge to design, build, and test an airfoil. Custom-built simulation software allows students to experience space travel.

#### Science of Technology

Science impacts the technology of yesterday, today, and the future. Students apply the concepts of physics, chemistry, and nanotechnology to STEM activities and projects, including making ice cream, cleaning up an oil spill, and discovering the properties of nano-materials.

#### Magic of Electrons

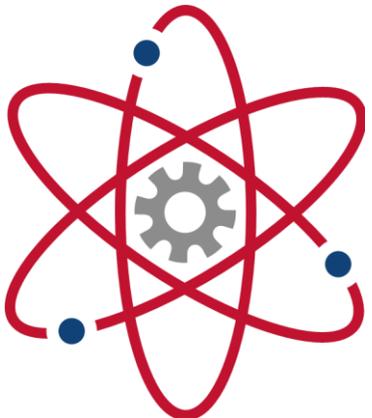
Through hands-on projects, students explore electricity, the behavior and parts of atoms, and sensing devices. They learn knowledge and skills in basic circuitry design and examine the impact of electricity on the world around them.

#### Green Architecture

Today's students have grown up in an age of "green" choices. In this unit, students learn how to apply this concept to the fields of architecture and construction by exploring dimensioning, measuring, and architectural sustainability as they design affordable housing units using Autodesk's® 3-D architectural design software.

#### Medical Detectives

Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a "crime scene." They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.



# Biomedical Program

## THE WORLD'S BIGGEST HEALTH CHALLENGES, INVESTIGATED IN YOUR CLASSROOM

From nausea to neuroscience, from fevers to forensics, the ever-advancing world of medicine spans from the common to the exceptional. The biomedical field has never been for the faint of heart or mind. However, countless professionals are relied on daily to ensure our physical, mental, and emotional health. The students of today will take the place of those professionals tomorrow, and they will need to be ready to respond to health challenges of the future – many that do not even exist today.

Knowledge in biomedical sciences paves the way for a wide range of careers. A small sample of recent graduates who completed at least one PLTW Biomedical Science™ course reveals the array of opportunities: some students pursued post-secondary studies in microbiology, pharmacy, chemistry, nursing, nutrition and dietetics, or neurobiology; others enrolled in medical or dental school; and others began careers in forensic science or started research projects focused on immunology and cancer. These careers are personally and professionally rewarding. They are also challenging and require a deep understanding of how to apply science, technology, engineering, and math (STEM) to solve complex problems.

How do we prepare students to investigate medical cases, understand treatment and intervention options, and seek solutions to the world's biggest health challenges?

### PLTW Biomedical Science

The rigorous and relevant four-course PLTW Biomedical Science sequence allows students to investigate the roles of biomedical professionals as they study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students engage in activities such as investigating the death of a fictional person to learn content in the context of real-world cases. They examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of disease, all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future.

Each course in the Biomedical Science sequence builds on the skills and knowledge students gain in the preceding courses. Schools offer the three PLTW Biomedical Science foundation courses over a period of three academic years from the start of implementation and may also offer the capstone course.



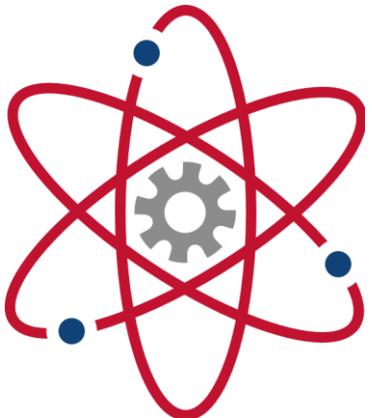
## PLTW Biomedical Science Curriculum

### Foundation Courses

- PBS Principles of Biomedical Science 1 year**  
In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems.
- HBS Human Body Systems 1 year**  
Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on MANIKEN® skeletal models; use data acquisition software to monitor body functions, such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.
- MI Medical Interventions 1 year**  
Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through cases, students learn about a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

### Capstone Course

- BI Biomedical Innovation 1 year**  
In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent research project with a mentor or advisor from a university, medical facility, or research institution.



# Engineering Program

## LET'S CHALLENGE OUR STUDENTS TO ENGINEER A BETTER WORLD

The influence of engineering is extensive. Engineering drives lofty innovations, such as space flight, and accessible yet significant breakthroughs, like greener household appliances. Today's students have limitless potential to build on such progress – when equipped with a strong early interest, critical-thinking skills, and problem-solving competencies.

With current projections indicating that more than 1.2 million U.S. jobs in science, technology, engineering, and math (STEM) will go unfilled by 2018, the time to expand the engineering talent pool is now.

Engaging student interest is imperative, as studies have shown that 75 percent of students talented in math and science during their K – 12 years decide not to pursue STEM in college. In addition, the field of engineering is grappling with an underutilization of potential resources: Only 13 percent of American engineers are women, while underrepresented minorities account for just 12 percent of the engineering workforce.

How can we engage student interest and equip all students with the skills needed for a brighter future?

### PLTW Engineering

PLTW Engineering™ is more than just another high school engineering program. It is about applying science, technology, engineering, and math through a project-based, hands-on approach to solve complex, open-ended problems in a real-world context. Students focus on the process of defining and solving a problem, not on getting the “right” answer. They learn how to apply STEM knowledge, skills, and habits of mind to make the world a better place through innovation.

PLTW students say that PLTW Engineering influenced their post-secondary decisions and helped shape their future. PLTW students are shown to study engineering and other STEM disciplines at a rate significantly higher than their non-PLTW peers.

Even for students who do not plan to pursue engineering after high school, the PLTW Engineering program provides opportunities to develop highly transferable skills in critical thinking, collaboration, and problem solving, which are relevant for any coursework or career.

U.S. News STEM Solutions Summit, 2012; Infographic: The Math-Science Shortage, Getting Smart, 2011; U.S. Census Bureau, “Disparities in STEM Employment by Sex, Race, and Hispanic Origin”, 2013

## PLTW Engineering Curriculum

### Foundation Courses

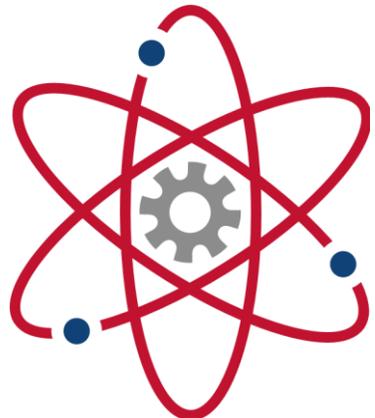
- IED Introduction to Engineering Design 1 year**  
Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software and use an engineering notebook to document their work.
- POE Principles of Engineering 1 year**  
Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

### Specialization Courses

- AE Aerospace Engineering 1 year**  
This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles.
- BioE Biological Engineering 1 year**  
*Beginning in the 2015-16 school year with Core Training in Summer 2015*  
BioE develops students' thinking skills and prepares them for emerging careers through topics such as genetic engineering, biofuels, and biomanufacturing. BioE will replace Biotechnical Engineering (BE), which PLTW will continue to offer until the end of the 2016-17 school year. BE End of Course Assessments will no longer be available after spring 2015.
- CEA Civil Engineering and Architecture 1 year**  
Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architecture design software.
- CIM Computer Integrated Manufacturing 1 year**  
Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the career opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation.
- CSE Computer Science and Software Engineering 1 year\***  
This course aims to develop computational thinking, generate excitement about career paths that incorporate computing, and introduce professional tools that foster creativity and collaboration.
- DE Digital Electronics 1 year**  
From smart phones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

### Capstone Course

- EDD Engineering Design and Development 1 year**  
The knowledge and skills students acquire throughout PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of practicing engineers. Students apply the professional skills they have developed to document a design process, and they complete EDD ready to take on any post-secondary program or career.



# Computer Science Program

## COMPUTER SCIENCE IS MORE THAN AN APP ON YOUR SMARTPHONE.

New technologies are responsible for the most life-altering advancements in recent years. Every field - including medicine and engineering, entertainment and business - has transformed thanks to computer science and will continue to evolve in unimaginable ways. Today's students have an amazing opportunity to make the next world-changing breakthroughs using computer science.

From a national perspective, the imperative to increase the U.S. talent pool in computer science and software engineering is clear. The projected number of job openings in 2018 for STEM fields will reach 2.8 million, with half of them being for computer specialists.

Like many other STEM fields, the current demand and supply are mismatched, as computer science career openings outpace students' skills and interest. Also, like many other fields, interest starts long before a student decides on a major or even applies to college.

How do we prepare students to use computational thinking program like pros, and be agile?

## PLTW Computer Science

PLTW Computer Science™ engages high school students in computational thinking through activity-, project-, problem-based learning and gets them excited about the possibilities in careers that use computing. Schools with PLTW Computer Science offer a minimum of three years of content to their students, including either the optional introductory course (ICS) and one or more of the foundation courses.

Courses will roll out over a four-year period. Schools can implement the *Computer Science and Software Engineering* (CSE) course immediately as part of the PLTW Computer Science program or as a specialty course in PLTW Engineering.

### Computer Science and Software Engineering (CSE)

PLTW's CSE course teaches students how to solve problems using computational thinking and skills. CSE introduces students to professional programming languages and platforms and encourages students to use these tools to discover, collaborate, and create. Using Python and other languages, students develop their own app, create dynamic websites, and construct their own graphical user interface.

CSE is not only aligned to the Computer Science Teachers Association (CSTA) 3B standards, but also challenges students to discover connections between computer science and digital electronics and data visualization.

An ideal starting point for any school, CSE provides the opportunity to build a complete Computer Science program with PLTW.



## PLTW Computer Science Curriculum

### Introductory Course

**ICS** Introduction to Computer Science *0.5 years\** Available in 2015-16  
ICS is designed to be the first computer science course for students who have never written code. Students create apps for mobile devices, explore the impact of computing in society, and learn how computing applies in various career fields.

### Foundation Courses

**CSE** Computer Science and Software Engineering *1 year^* Available Now!  
This course aims to develop computational thinking, generate excitement about career paths that incorporate computing, and introduce professional tools that foster creativity and collaboration.

**CSA** Computer Science Applications *1 year~* Available in 2016-17  
In CSA, students collaborate to integrate technologies across multiple platforms, mobile devices, and networks.

### Specialization Courses

**SAM** Simulation and Modeling *0.5 years~* Available in 2017-18  
Students create models and run simulations to communicate central ideas in the physical, biological, and social sciences and deepen their understanding of concepts in discrete math and computer science.

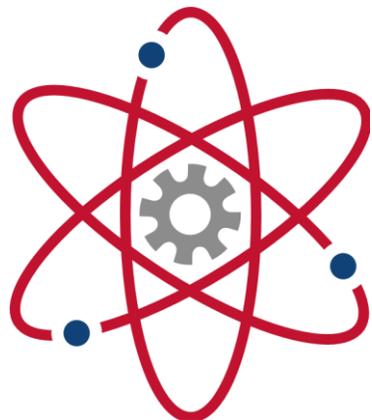
**AI** Artificial Intelligence *0.5 years~* Available in 2018-19  
Students develop artificially intelligent systems that generate solutions to real problems found in science and industry and use a wide array of applications, including automated vehicles and computer vision.

**SEC** Cybersecurity *0.5 years~* Available in 2018-19  
This course introduces the tools and concepts of cybersecurity and encourages students to develop solutions that allow people to share computing resources while protecting privacy. SEC raises students' knowledge of and commitment to ethical computing behavior.

### Capstone Course

**CPS** Computational Problem Solving *1 year~* Available in 2018-19  
Students get the opportunity to work in a team to deliver a software solution to a real-world design problem. Throughout the project, students apply effective practices in problem solving, documentation, software development, and presentation.

\*Course aligns with CSTA 3A standards. ^Course aligns with CSTA 3B standards. ~Course aligns with CSTA.



### INTRODUCTION

The experiment included the three most common household bulbs: Incandescent, Compact Fluorescent (CFL) and Light Emitting Diodes (LED). There are certain types of light bulbs that emit UV Radiation; this can lead to skin cancer or other damages. UV Radiation consists of two types of specific wavelengths; UVA and UVB. UVA is the longer wavelength of the two; therefore, it can penetrate down to the dermis, which is the thick layer of living skin tissue under the top layer of skin. CFL and Incandescent bulbs both contain mercury vapor, which can be released from the bulbs as the phosphor coating wears down from the inside. The radiation from the mercury vapor can cause Melanoma, which is the deadliest form of skin cancer. Our overall project was to observe how damaging the UV rays were on yeast cells. The reason we chose Baker's Yeast was because they are most similar to human skin cells and since yeast is eukaryotic; it is also easy to work with. We decided to do this project in order to gain a medical perspective on the push for eco-friendly CFL light bulbs in households versus other types of light bulbs.

If the CFL bulbs emit the highest concentration of radiation, then the CFL bulbs will damage the yeast cells the most.

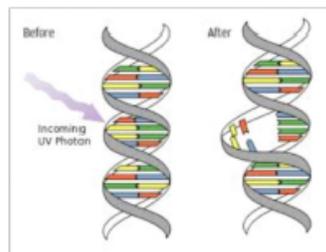


### OBJECTIVES

Determine whether or not a Compact Fluorescent light bulb is more harmful to a person's health than an Incandescent light bulb.

### ADDITIONAL RESEARCH

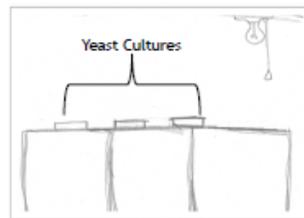
How Melanoma Occurs in Humans:



The thymine dimer is a cancerous mutation caused by ultra-violet radiation. Every second exposed to UV rays creates 50-100 thymine dimers in every skin cell.

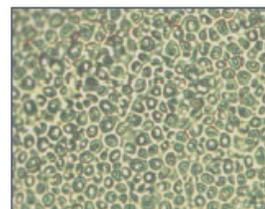
### METHODS AND MATERIALS

Three types of light bulbs (CFL, Incandescent, and LED) were used in this experiment in order to observe which light bulb would cause the most radiation damage to yeast cells. For a trial period of three weeks, each type of light bulb was consistently on for 160 hours, approximately one week. Every light bulb had three yeast cultures at the exact same distance away from the bulb to test the effect of radiation on the cells. After each week, the cultures were collected and observed to assess the damage by looking at cell samples under a microscope. The samples were recorded as before and after comparisons.



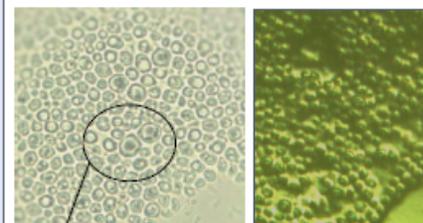
### RESULTS

Before Radiation Exposure; Microscope Magnification: 10x



The damage to the yeast after one week of radiation exposure is shown in each picture below. The Incandescent light bulb shows the majority of damage. The enlarged cells demonstrate the effect of radiation because the abnormal cell size.

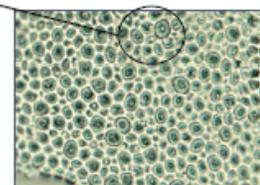
After Radiation Exposure; Microscope Magnifications: 500x



Incandescent

Light Emitting Diode (LED)

Enlarged yeast cells



Compact Fluorescent (CFL)

### CONCLUSIONS

The hypothesis was disproved because the Incandescent sample contained noticeably larger yeast cells than that of the CFL sample or LED sample. This may be due to various errors both in the set up and execution of the experiment.

The abnormal growth of the yeast cells is caused by radiation exposure. UV Radiation disrupts the function and life of the cells as it prevents the division of cells. This is why several of the cells viewable are bigger than they are meant to be because their division process has been stunted. When cells are unable to divide, they continue to grow until their nucleus and DNA strand can no longer support them, and the cells are unable to complete their function. Therefore, those cells will die off.

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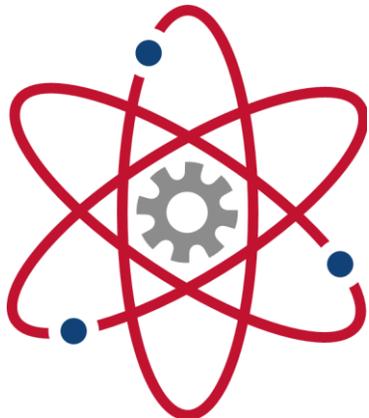
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# Antibiotic Resistance: Are You at Risk?

Chelsea Smith  
Pulaski County High School



## Abstract

Antibiotic resistant bacteria - is it as common as some of the current literature would lead us to believe? Dangerous infections like invasive MRSA are tracked, with an estimated 75,000 cases diagnosed in 2012 (CDC, 2014). But are other less-publicized antibiotic resistant bacteria present in your everyday environment? This project surveys commonly handled items in a secondary public school in search of bacteria that are resistant to common antibiotics, such as streptomycin and penicillin. Swabs were collected in heavily trafficked and handled areas such as stairwell rails, cafeteria foyr heater, and locker handles. Petri plates containing nutrient agar were then swabbed for lawn growth, and antibiotic discs placed on the plates. After 24 hours of incubation, the zone of inhibition for each disc was measured. The different locations yielded different degrees of antibiotic susceptibility. Four antibiotics exhibited a zone of inhibition diameter of 0, indicating antibiotic resistance.

## Background

In 1928, Alexander Fleming discovered penicillin after observing that a petri dish containing staphylococcus that was mistakenly left open showed contamination from a blue-green mold, but also had a visible growth. There was a zone of inhibition around the mold, and Fleming concluded that the mold released a substance, penicillin, that caused lysing of the bacteria. This discovery of the first antibiotic was a milestone in the medical community, and became widely used after the discovery. It even shifted the most common cause of death from infections to heart disease. The achievements from using penicillin led scientists to expound their knowledge of antibiotics and resulted in the discovery of even more antibiotics including streptomycin, ampicillin, gentamycin, tetracycline, and chloramphenicol.

As the use of antibiotics became more popular, antibiotic resistant genes began to emerge from the bacterial gene pool. One lab conducted in my Medical Interventions class used E.coli strains to show how bacteria become resistant to antibiotics via conjugation, and the concept of antibiotic resistance genes in bacteria becoming more abundant was discussed. This sparked an interest in me, and led to the completion of this experiment in order to determine if antibiotic resistance is as prevalent as modern medical literature leads people to believe- and to what extent the resistance is present (what antibiotics do bacteria show resistance to).

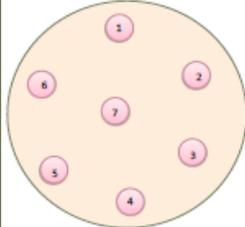
## Materials

- ✓ Agar plates
- ✓ Sterile Cotton Swabs
- ✓ Distilled water
- ✓ Incubator
- ✓ Tape Measure (mm.)
- ✓ Antibiotic Disks
- ✓ Nutrient Broth
- ✓ Sterile Loops



## Procedure

- Procedure:
1. Locate an area that comes in contact with numerous people on a daily basis.
  2. Dip a sterile cotton swab in the distilled water and rub it on the surface of the high-contact area.
  3. Rub the contaminated cotton swab onto one of the agar plates so that the water from the cotton swab is spread evenly across the surface.
  4. Clearly label the agar plate and the lid so you know the original location of the bacteria.
  5. Place the antibiotic disks around the plate, about 3 cm apart, with a control in the middle.
  6. Label on a piece of paper which antibiotic disks were placed where on the plate.
  7. Repeat steps 1-5 for the different areas that you choose throughout the building.
  8. Return the lids on to each plate and place them in the incubator for at least 24 hours.
  9. Remove the plates and observe bacteria growth
  10. Discard plates that do not show significant growth.
  11. Use a sterile loop to collect bacteria from one of the remaining plates
  12. Place the bacteria in the nutrient broth and shake it so that the liquid becomes turbid.
  13. Repeat Steps 11-12 for the remaining plates.
  14. Allow the broths to incubate overnight
  15. Remove the broths from the incubator, the liquid should be cloudy.
  16. Take a sterile loop and dip it in one of the broths
  17. Rub the broth across an agar plate so that the surface is evenly covered.
  18. Repeat steps 16-17 for the remaining sets of bacteria broth.
  19. Place the agar plates in the incubator for at least 24 hours.
  20. Remove the plates and measure the zones of inhibition using a centimeter ruler. (the zone of inhibition is the diameter of the circular area where the antibiotic prevented the bacteria from reproducing)
  21. Use the Kirby-Baur zone of inhibition chart to determine if the bacteria in the remaining plates were sensitive, resistant, or intermediate to the tested antibiotic.



### Antibiotic Disk Placement

1. Tetracycline
2. Gentamycin
3. Ampicillin
4. Penicillin
5. Chloramphenicol
6. Streptomycin
7. Control Disk

### Kirby-Baur Zone of Inhibition Chart

Antibiotic	Resistant (mm.)	Intermediate (mm.)	Susceptible (mm.)
Penicillin	28 or less	--	29 or more
Ampicillin	11 or less	12-13	14 or more
Gentamycin	12 or less	13-14	15 or more
Tetracycline	14 or less	15-18	19 or more
Streptomycin	11 or less	12-14	15 or more
Chloramphenicol	12 or less	13-17	18 or more

## Results

Bacteria was originally collected from five locations in the school: a stairwell hand railing, a biology lab sink handle, a heater beside the lunchroom, a water fountain handle, and a locker handle. After observing the bacteria growth on for the five locations, two of the plates were discarded because they didn't yield significant results (there was little to no bacteria growth). Those locations were the stairwell railing and the water fountain handle. After concentrating the remaining three collections of bacteria using the broth, the zones if inhibition were clear. Not only were they clear, but the bacteria showed resistance to antibiotics that was not present in the previous culture. The six antibiotics that were tested were penicillin, ampicillin, gentamycin, tetracycline, streptomycin, and chloramphenicol. The tables below display the measurements (in millimeters) of the zones of inhibition for each antibiotic and the rank of resistance according to the Kirby-Baur zone of inhibition chart of each plate. (The bacteria can be ranked as resistant, intermediate, or susceptible. If the zone of inhibition measured zero, the bacteria was considered to be very resistant.)

### Biology Lab Sink Handle

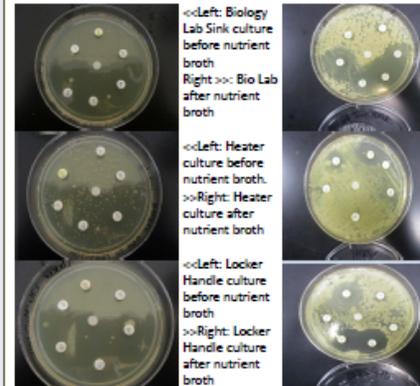
Antibiotic Bio sink	Zone of Inhibition (mm.)	Rank of Resistance
Penicillin	0 (grew up to disk)	Very Resistant
Ampicillin	0 (grew up to disk)	Very Resistant
Gentamycin	21 mm.	Susceptible
Tetracycline	35 mm.	Susceptible
Streptomycin	7 mm.	Resistant
Chloramphenicol	0 (grew up to disk)	Very Resistant

### Heater

Antibiotic	Zone of Inhibition	Rank of Resistance
Penicillin	0 (grew up to disk)	Very Resistant
Ampicillin	0 (grew up to disk)	Very Resistant
Gentamycin	0 (grew up to disk)	Very Resistant
Tetracycline	30 mm.	Susceptible
Streptomycin	10 mm.	Resistant
Chloramphenicol	20 mm.	Susceptible

### Locker Handle

Antibiotic	Zone of Inhibition	Rank of Resistance
Penicillin	0 (grew up to disk)	Very Resistant
Ampicillin	0 (grew up to disk)	Very Resistant
Gentamycin	23 mm.	Susceptible
Tetracycline	20 mm.	Susceptible
Streptomycin	0 (grew up to disk)	Very Resistant
Chloramphenicol	30 mm.	Susceptible

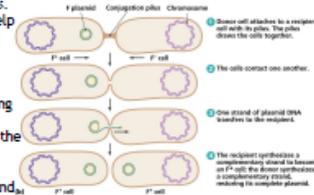


## Discussion

After seeing the results, it is evident that antibiotic resistance is definitely present in the bacterial gene pool. Before they were concentrated, the bacteria from the locker only showed resistance to ampicillin and the bacteria from the biology lab sink handle only showed resistance to streptomycin. After they were concentrated, both displayed resistance to two additional antibiotics. This shows me that the resistant genes for the antibiotics were present in the gene pool, they just weren't expressed yet. The bacteria conjugated while in the broth, which allowed the other resistant genes to be utilized. None of the bacteria had a zone of inhibition measurement that would consider them to be intermediate; they were either resistant or susceptible. The resistant genes present in the bacteria were more prevalent than I thought. Once the additional resistant genes turned up in the population, it became clear how common the genes were. The resistance tripled after just one generation. It is evident that the current medical literature is not exaggerating when they discuss how frequent resistance is displayed.

This all goes back to the fact that doctors depended, and still depend, on antibiotics to "cure" bacterial diseases and illnesses. The over-use of them have caused these resistant genes to emerge and the antibiotics are becoming less efficient for treating bacterial diseases.

Patients do not help when they fail to take the entire course of their antibiotic medication, leaving bacteria that are more resistant to the antibiotic in their system, allowing them to pass on and concentrate the antibiotic resistant genes.



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## Acknowledgements

I would like to acknowledge PCHS principal Mike Murphy, and Mardi Montgomery, Director of Next Generation Programs for Pulaski County Schools, and the rest of the administration for supporting Project Lead the Way Biomedical Science students.

# Teacher Quotes

- The teaching strategies utilized by PLTW allow the student to have more real-world learning experiences--even though they are still in a classroom! The PLTW curriculum is the reason I am teaching high school students rather than in college. I'm able to teach college level concepts and have the student actually apply those concepts--something traditional college students don't get to do until graduate school!

**Dr. Julye Adams – Biomedical Teacher at the Elkhorn Crossing School**

- PLTW has helped my school, students, and teachers understand the importance of STEM education in elementary school. The program is assisting our teachers in developing problem solvers in the classroom and in the real world

**Rebecca Logan – Launch Teacher at Elkhorn Elementary**

- PLTW has changed my style of teaching and helped me be a better teacher. It has made my students life long learners who see engineering and design everywhere in our society. Even if they don't become engineers they think a little differently after having these classes.

**Chastity Rohan - Engineering Teacher at Grant County High School**

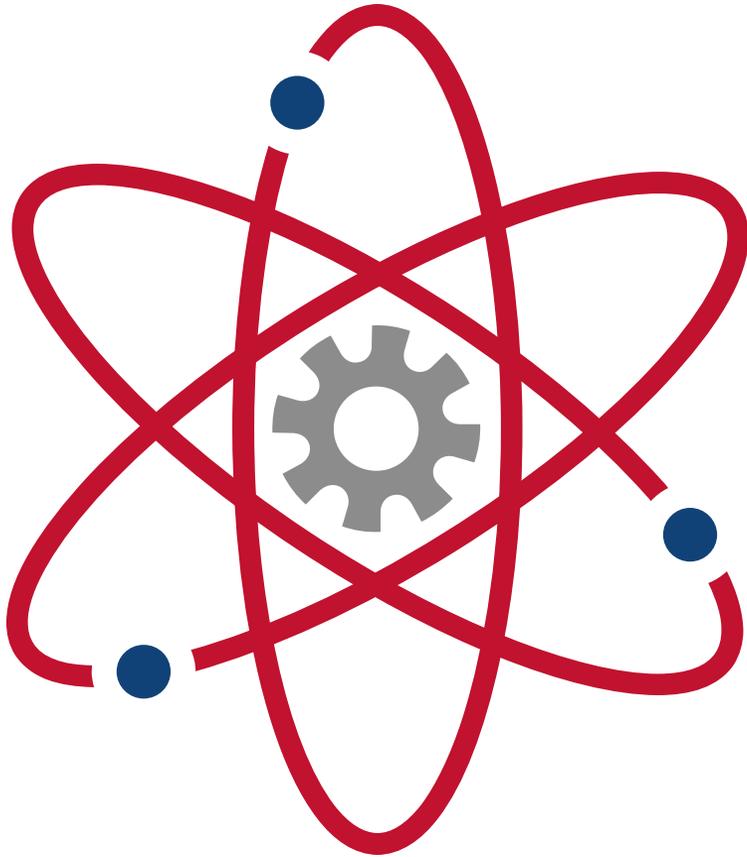
- This is my first year with PLTW, the training was intense but awesome!! I can't wait for school to start!!

**Diane Carper - Gateway Teacher at Ashland Middle School**

- PLTW gives my students the opportunity to learn by doing. They gain confidence in their problem-solving and creative thinking skills as 8th graders. For 8th graders, PLTW offers enjoyment in learning. At this age, school becomes a chore and PLTW brings life back into their school day.

**Melissa Mills - Gateway Teacher at T.K. Stone Middle School**

# Contact



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Council on Postsecondary Education  
February 13, 2015

## **Committee Appointments**

The chair will appoint the members of the Council's Executive Committee. This committee consists of the chair, vice chair, and three other members who serve one-year terms. The Executive Committee reviews all agency budget and personnel matters, including an annual audit of the agency, evaluates the president, and performs other activities assigned by the Council.

The chair will appoint the members of the 2016-18 Budget Development Work Group. This committee will meet to discuss and analyze data related to the long-term fiscal needs of the system and work on an operating and capital budget recommendation for 2016-18.

Staff preparation by Heather Bingham

# AIKCU NEWS

The Association of Independent Kentucky Colleges & Universities

## **UPIKE's newest college named for KY's "Education Governor"**

The **University of Pikeville** has named the new Patton College of Education in honor of Governor Paul Patton and his lifelong commitment to education in Kentucky.

## **Berea recognized as most affordable college in America**

**Berea College** tops a January *USA Today* list of the least expensive colleges in America. More: <http://goo.gl/iOQ5dl>

## **Bellarmino's MBA program helps incubate award winning startups**

Recent graduates of **Bellarmino University's** Executive MBA program have won several innovation prizes for businesses developed during their time at BU. One company, GearBrake, netted \$105,000 in prizes and others have also successfully competed in startup competitions. Read startup profiles: <http://goo.gl/tmbdAI>



## **AIKCU welcomes 13 students for 2015 Frankfort Semester Internship**

Thirteen students from five nonprofit private Kentucky colleges and universities—**Alice Lloyd College (3), Campbellsville University (2), Georgetown College, St. Catharine College (2),** and the **University of Pikeville (5)**—are in the state capital this spring gaining work experience and getting a close look at the workings of Kentucky state government.

The interns will take two upper-level seminars and work 30 hours per week in state agencies or related organizations, including: the Council on Postsecondary Education, the Kentucky School Boards Association, the Kentucky Historical Society, the Kentucky Cabinet for Health and Family Services, and several others. More: <http://www.aikcu.org/2015/01/26/aikcu-welcomes-13-students-for-2015-frankfort-semester-internship/>

## **AIKCU Spotlight Fair is February 26**

The 30th annual Spotlight Career, Internship, and Graduate School Fair will be held at the Lexington Center on February 26. Information: <http://www.aikcu.org/programs/spotlight/>

### New Appalachia Service Project chapter at Union College

Union College has established a campus chapter of the Appalachia Service Project (ASP) that will lend student hands to help area families. The project will provide year round assistance to local families in need of home repairs. Learn more: <http://goo.gl/uq073Q>

### Transy adopts test-optional admissions policy

Beginning with the 2016 admissions cycle, **Transylvania University** applicants can choose whether or not to submit ACT or SAT scores as part of the admissions process. Transy joins a growing number of colleges across the country offering prospective students this choice. More: [http://www.transy.edu/news/arch\\_story.htm?id=1006](http://www.transy.edu/news/arch_story.htm?id=1006)



**AIKCU**

Association of Independent  
Kentucky Colleges & Universities



### 934 graduate during winter ceremonies

Congratulations to the new AIKCU alumni who received degrees during winter commencement ceremonies at **Bellarmino University (268)**, **Berea College (57)**, **Campbellsville University (210)**, and **Lindsey Wilson College (399)**. *Photo courtesy of Lindsey Wilson College.*

### Thomas More College and Gateway announce KY's first public-private dual enrollment partnership

**Thomas More College** and **Gateway Community and Technical College** have launched **Gateway2TMC**. The partnership will provide defined “2+2” transfer pathways as well as a “1+3” option that allows a student to complete a year of general education requirements at Gateway before transferring to Thomas More to complete their majors.

Students on the 1+3 plan can earn their associate degrees through reverse transfer. Gateway students enrolled in the program can take up to four Thomas More courses at community college tuition. More: <http://goo.gl/6ba3wA>

# EKU Report

Eastern Kentucky University News for the Council on Postsecondary Education

February 2015



## EKU Ranks No. 2 Nationally in “Best for Vets” Survey

For the fourth time in five years, EKU ranks second or higher nationally among four-year schools in the Military Times “Best for Vets” rankings.

The rankings measure schools on their commitment to helping military veterans further their education. EKU, which finished second in the 2015 rankings to only the University of Nebraska at Omaha, ranked No. 1 in 2011 and 2013 and No. 2 in 2012.

The detailed survey requires schools to meticulously document a tremendous array of services, special rules, accommodations and financial incentives offered to military and veteran students and to describe many aspects of veteran culture on campus.

“We factor in what is, to our knowledge, the most detailed school-by-school data on veteran students’ academic success anywhere, including graduation, retention, persistence and course completion rates,” said Amanda Miller, editor of Best for Vets.

Home to more than 1,500 military-affiliated students, EKU also has been recognized by G.I. Jobs magazine as a Military Friendly School each of the past five years.

## Scholarship Model Attracting More of Best, Brightest

EKU is welcoming increasing numbers of the best and brightest students, thanks to a revamped model for merit-based scholarships that gives equal weight to ACT and SAT scores and high school GPA.

The University has committed an additional \$1.7 million to its scholarship budget for the Fall 2015 class, and that translates to 100-150 additional merit scholarships.

“We are investing more in our students,” said Dr. Brett Morris, executive director for enrollment management. “We want to reward academic excellence and help good, hard-working students come to EKU.”

Students and families are already taking notice – not only of the additional scholarship opportunities but also of new residence halls and academic facilities, such as a state-of-the-art science building, and other campus improvements.

“We’re seeing a lot more excitement about EKU,” Morris said. “Applications are up almost 10 percent over this same time last year, and almost 30 percent higher than this same time two years ago. Admitted students are up 18 percent over the same time last year and almost 34 percent over two years ago.”

## Colonel’s Cupboard Addresses Hunger on Campus

Most college students are worried about their next big test. For some, unfortunately, an even bigger worry is the source of their next meal.

Studies suggest that one in six EKU students have likely experienced “food insecurities” at some point in their lives. Now, with the launch of Colonel’s Cupboard, the University is taking steps to ensure that none of its students or their dependents ever go hungry and to increase the likelihood of their academic success.

“We want our students to be able to focus on their studies and their future rather than where they’re going to get their next meal,” said Will Keaton, assistant director of Student Life-Community Service.

The Cupboard provides short-term assistance while helping students find long-term solutions. In addition to a “food box” that includes 6-10 well-balanced, non-perishable meals, it provides money management workshops and connects students with campus employment resources as well as community social service agencies.

In its first few months, the Cupboard has enjoyed tremendous support from the campus community, with much of its stock coming from various food drives.

President Benson, speaking at a ceremony marking its public launch, said the Colonel’s Cupboard “is part and parcel of our overall student success program. We’re trying to be at the forefront in addressing the holistic needs of our students.”

Less than 150 colleges and universities nationwide “have a resource like this,” he said.

## EKU Recognized among Top STEM Schools in U.S.

Recently recognized as one of the top 125 STEM (Science-Technology-Engineering-Mathematics) colleges and universities in the nation, EKU is partnering with five area high schools to advance among teens awareness of and preparation for STEM fields.

Eastern is partnering with Madison Southern High School, Berea Community School, Pulaski County High School, Pulaski Southwestern High School, and Beechwood High School (Fort Mitchell).

Victory Media announced EKU's designation as a 2015 STEM Jobs<sup>SM</sup> Approved College. Its inaugural list is the first of its kind to rate universities, colleges, community and technical colleges and trade schools on how effectively they align their programs to high-demand, high-paying STEM jobs, how well they assist their students in achieving career aspirations in STEM fields, and their success in attracting and supporting diverse students and faculties in STEM fields.

EKU, the only public institution in Kentucky to make the list, is one of a handful to achieve Gold Status, the highest possible rank.



## EKU Leads U.S. in Presenters at Honors Conference

Once again, EKU boasted the largest delegation of student presenters at the annual meeting of the National Collegiate Honors Council (NCHC).

For 26 consecutive years, Eastern's Honors Program has brought more participants to the NCHC than any other participating college or university. This year, 39 Honors Colonels and four faculty members traveled to Denver to participate in panels or poster presentations at the five-day event.

The conference was especially memorable for one member of the EKU contingent. Honors Scholar Sam Shearer, a senior accounting major from Winchester, received the Portz Scholar Award, the most prestigious student recognition bestowed by NCHC, awarded annually to the top four Honors thesis projects in the nation.

Shearer's winning thesis was entitled "Truman Smith's Reports on Nazi Militarism: A Study of Domestic Political Priorities and U.S. Foreign Policy Making in Franklin Roosevelt's First and Second Terms." He received a plaque and \$350 stipend.

## EKU Offers Community Improvement Grants

President Benson and EKU's Center for Appalachian Regional Engagement and Stewardship (CARES) are inviting communities throughout Eastern's 22-county service region to submit proposals for one of five \$10,000 CARES community grants.

The grants illustrate EKU's commitment to its partnerships with the communities, as well as its profound dedication to working with those partners to enhance the quality of life throughout the region, according to CARES Director Ian Mooers. EKU initiated the CARES community grants in 2013 and President Benson, who plays a leadership role in the Shaping Our Appalachian Region (SOAR) initiative, is proud to continue the effort for another year.

"This is a great opportunity for our faculty, staff and students to partner with local individuals and organizations to work hand-in-hand together to positively impact the places we live, work and call home," Benson said.

## Eastern, Western Partner to Expand Delivery of OSHA Safety Courses

OSHA safety courses are now available in Bowling Green and Owensboro, thanks to a new partnership between EKU's OSHA Training Institute Education Center and Western Kentucky University's Division of Extended Learning and Outreach.

Eastern houses one of 27 OSHA Training Institute Education Centers in the U.S. and the only such center in Kentucky. During 2013-14, the EKU-based center enrolled more than 1,800 students in designated OSHA numbered courses in Richmond and Louisville and across an eight-state region, with additional courses provided for the U.S. Army in Kuwait and South Korea. In addition, EKU authorized outreach trainers conducted 820 classes for more than 9,000 students in the 10-hour and 30-hour classes for general construction and industry.

"The EKU Center has grown from serving 68 students in 2003 to serving more than 1,800 students last year in the designated OSHA-numbered courses," EKU Provost Dr. Janna Vice noted. "Our partnership with Western can help us reach even greater numbers."

The EKU-WKU partnership "will make OSHA training delivery more seamless, more convenient and less costly for industries in western Kentucky," said Tammy Cole, system director for EKU's Center for Career and Workforce Development.

Officials at the two universities will collaborate to create a master schedule of appropriate classes, with EKU's Training Institute Education Center processing registration, fees and prerequisite verifications as well as providing instructors, curricula and material assignments for each course. WKU's Division of Extended Learning and Outreach will assess needs in the region, promote the courses in appropriate venues and provide space and on-site coordination.

"We are delighted to enter into this agreement with our friends at EKU," said WKU Provost Dr. Gordon Emslie.

# KCTCS GOOD NEWS REPORT

HIGHER EDUCATION BEGINS HERE

FEBRUARY 2015

## KCTCS RECEIVES HIGH MARKS FROM NATIONAL CENTER FOR HIGHER EDUCATION MANAGEMENT SYSTEMS

*Achieves top five national ranking for enrollment growth and credentials earned*

Kentucky's public postsecondary two-year system has risen from a fragmented group of technical and transfer-oriented colleges into one of the most comprehensive community and technical college systems in the country, according to a new report by the National Center of Higher Education Management Systems (NCHEMS). The report ranks the Kentucky Community and Technical College System (KCTCS) fourth in the nation for total credentials awarded among the nation's community and technical college systems, and fifth in enrollment growth.

Since its creation, KCTCS has experienced a dramatic increase in annual enrollment from 73,000 students in 2000 to 135,000 in 2013, the time period studied by NCHEMS. According to the report, one of the best ways to measure success is to look at the impact KCTCS is having on Kentucky adults without college degrees. KCTCS now ranks fifth in the nation in terms of improving its reach to young adults (18-34).

One reason for that growth is online education. The report noted the explosion in the number of students enrolled in at least one online course, which showed a little more than 3,000 in 2000 to nearly 52,000 in 2013. This makes KCTCS the largest provider of online education in the state.

Since 2000, KCTCS also has had a dramatic increase in the awarding of credentials with the number of associate degrees tripling and the number of certificates increasing tenfold. In the critical age group of 18-34, the state's improvement in awarding college credentials has moved KCTCS from 32nd to fourth in the nation.

The recently released report titled "The Kentucky Community and Technical College System: The Rise of a Premier Public Two-Year College System," shows that KCTCS has realized the vision set forth by former Gov. Paul Patton and other state policy makers when they passed House Bill 1 (HB1) in 1997.

"It has happened in large part because of the sustained commitment to leadership, support and service from the staff at KCTCS; and the diligent efforts to service their communities among the 16 colleges (and their staffs)," NCHEMS reported. "The residents of Kentucky are greatly benefitting from all of their efforts."

Kentucky was one of the first states to set a goal for college attainment when it did so in 1997. Recognizing that Kentucky was one of the most under-educated and poorest states in the U. S., legislators set out to greatly expand the open access mission and provision of the state's community and technical colleges.

"Gov. Patton and the legislators who created and passed HB1 had the foresight to understand what would happen to Kentucky's workforce and economy if education levels did not increase," said KCTCS President Jay Box. "We took that vision and created a system that has helped improve the lives of 750,000 Kentuckians and increased the number of skilled workers to help recruit and retain businesses throughout Kentucky."

**“For the first time in history, Kentucky has surpassed the U.S. average in the attainment of associate degrees.”**

The report praises the “innovative” work the 16 colleges are doing to serve the needs of Kentucky's employers and effectively linking postsecondary education with workforce and economic development. Last year, KCTCS served just over 5,500 businesses

and trained nearly 50,000 employees.

The centerpiece of the KCTCS workforce and economic development effort is the KCTCS-TRAINS program, which is part of the Kentucky Skills Network, a partnership between the Cabinet for Economic Development, Kentucky Career Center, Labor Cabinet and KCTCS. Through KCTCS-TRAINS, companies are provided funding to defray the costs of training and assessment services for current and potential employees to keep businesses competitive.

NCHEMS also points out that KCTCS leads the nation in its use of data regarding the employment of its graduates. Data compiled by KCTCS for a Bill and Melinda Gates project in 2012 revealed positive outcomes for graduates at all levels and fields of study – each yielding wages to program completers that are above those experienced by working adults who have not earned college credentials.

The report concludes by saying that despite its improvement, KCTCS continues to seek innovative practices and has remained involved in many major national initiatives aimed at improving student success and institutional performance.





## KENTUCKY STATE UNIVERSITY

### KSU President Delivers State Of The University Address

Kentucky State University President Raymond M. Burse delivered a State of the University Address, on Jan. 22, in which he asked the KSU community to be better to make the university better.

“All roads to KSU’s success begin and end with a student,” Burse told the crowd gathered in Bradford Hall’s Carl H. Smith Auditorium, which included alumni, faculty, staff, students and members of the Board of Regents. “If KSU gets better, our students get better.”

Burse discussed 2014 successes and areas in which the university still needs to improve.

KSU’s School of Education received reaccreditation from the National Council for Accreditation of Teacher Education, Burse said. All national standards were met with no major findings for areas of improvement.



In 2014, the university also received more positive attention in the media than it has in its history. Upon his appointment as head of KSU, Burse had given up \$90,000 of his salary to increase the pay of the university’s lowest-paid workers, thereby generating local, regional, national and international news coverage of the university. “Millions of people who had never heard of Kentucky State University now know of us, where we are located and have seen our campus in a light rarely given to us,” Burse said.

Also, Burse said, 94 students – including five student-athletes – received 4.0 grade point averages for the fall semester.

“Rewarding academic achievement is what we’re all about,” Burse said.

Still, he noted, the university must improve graduation rates, customer service and fiscal responsibility.

“We can get there if you can be better,” he said.

### The KSU Thorobred Express Rolled Into Hopkinsville In January

On Jan. 30, three busloads of Kentucky State University students, faculty, staff and administrators traveled to Hopkinsville, Ky., on the first stop of the Thorobred Express, a mobile recruitment initiative that takes members of the KSU community across the Commonwealth of Kentucky.

The purpose of the Thorobred Express is twofold – to recruit prospective students from Kentucky to KSU and to inform communities in the state about the university. This initiative is in addition to the university’s regular recruitment program.

Thorobred Express activities included visits to area high schools and a college fair at the Bruce Convention Center.

An afternoon assembly highlighted academic programs and featured various speakers from the campus community. The assembly also recognized high school seniors who had been accepted to attend KSU in the fall. Other seniors, who applied onsite, had their application fees waived. Prospective students learned about financial aid, academic offerings and

internships as well as scholarship, dual credit and online opportunities.

KSU faculty members also visited Christian County High School to teach classes and give mini presentations on their disciplines.

“There are some who don’t know who we are and some who think they know who we are. But there are many who don’t know about the quality of the education we offer, the caliber of students we have and the bountiful opportunities for students here at KSU. So as important as securing more instate prospective students is letting the Commonwealth know exactly who Kentucky State University is and what makes us unique,” said Dr. Vernell Bennett, vice president for student affairs.

The next stop on the Thorobred Express will be to eastern Kentucky and then Elizabethtown.

# KSU Hosts Community Partnership Forum And Reception

Kentucky State University alumni, faculty, staff and members of the community came together on Jan. 21, 2015, in the Carl M. Hill Student Center Ballroom for “Discover What We Can Achieve Through Partnership,” a community partnership forum and reception. The event featured a discussion with KSU President Raymond M. Burse, Franklin County Circuit Court Judge Thomas Wingate, Franklin County Public Schools Superintendent Chrissy Jones and Frankfort Area Chamber of Commerce Executive Director Carmen Inman.



*Joining President Raymond M. Burse are Carmen Inman, Chrissy Jones and Judge Thomas Wingate.*



*Kentucky State Sen. Julian M. Carroll chats with KSU's Dr. Joanne Bankston, associate professor and coordinator of the Division of Family and Consumer Sciences.*

## School Shooting Victim Awarded Scholarship



On Jan. 4, KSU President Raymond M. Burse, along with Max Maxwell, interim vice president for external relations and development, presented school shooting victim Javaughtntay Burroughs (center) of Louisville with a full scholarship to attend KSU. Burroughs was shot at Louisville's Fern Creek High School in October, although he was not the intended target.



## MSU selected for prestigious Carnegie recognition for community engagement

Morehead State University has been selected to receive the Carnegie Foundation's 2015 Community Engagement Classification. MSU is one of 361 institutions in the country, and one of six Kentucky higher education institutions to earn the classification.

The classification includes institutions such as Michigan State, Ohio State, Penn State and Wisconsin, long recognized as the national leaders in outreach. MSU's classification is valid until 2025.

"We are honored to receive this national recognition for our faculty and student engagement," said Dr. Wayne D. Andrews, president of Morehead State University. "Outreach is a defining aspect of our mission, and this classification reflects MSU's significant commitment to serving the public in Eastern Kentucky and beyond."

Colleges and universities that focus on community engagement were invited to apply for the Community Engagement Classification and detail their initiatives. Institutions are assessed on their engagement in curriculum, faculty scholarship, community partnerships and student life. In order to be selected for the classification, institutions had to provide detailed descriptions of institutionalized practices supporting community engagement and demonstrating alignment among mission, culture, leadership, policies, administration and resources.

"Receiving the Carnegie Foundation's recertification as an engaged campus validates what we do. We are truly thankful and humbled by being included in the relatively small group of colleges and universities that have been recognized nationally for regional engagement. Much of our success can be attributed to the great external partners, and dedicated faculty and students we work with in our 22-county service region," said Dr. J. Marshall, executive director for regional engagement.



### Office of the President

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## **MBA program named one of the best by Affordable Colleges Foundation**

MSU's online Master of Business Administration program has been named one of the Best Online MBA Programs for 2014-15 by Affordable Colleges Foundation.

Programs were analyzed on student-faculty ratio, percentage of faculty with Ph.D. degree, and full tuition of the online MBA program.

"Flexibility and affordability in online MBA programs is important, but quality cannot be ignored," said Dan Schuessler, founder and CEO of Affordable Colleges Foundation. "The online MBA programs on our list offer students the same level of academic excellence and student support that is expected of campus-based programs."

## **Applied engineering and technology programs receive full accreditation**

The Association of Technology, Management, and Applied Engineering (ATMAE) Board of Accreditation has voted to reaccredit MSU's Bachelor of Science in Engineering Technology program with options in electronics and telecommunications and computer engineering technology, design and manufacturing engineering technology, and construction management and civil engineering technology for six more years.

The AET faculty also submitted the Master of Science in Engineering Technology and Management (MSETM) degree for an initial accreditation. The MSETM was successful, receiving full accreditation on the first attempt. The MSETM is one of the only programs of its kind accredited by ATMAE in Kentucky.

## **MSU and Highlands Museum and Discovery Center unveil new exhibit**

Morehead State University and the Highlands Museum and Discovery Center unveiled their new astronomical exhibit, "Satellites, Aerospace and the Bluegrass State," with a reception and ribbon cutting ceremony in December 2014.

"The purpose of this exhibit is to entice middle school and high school students to come and see and to learn about space science and STEM (science, technology, engineering and mathematics) disciplines," said Dr. Wayne D. Andrews, MSU president. "Our space science people and the museum people have worked very hard on this beautiful exhibit."

The exhibit will inform visitors about the role satellites play in the field of aerospace, feature 1:1 scale models of satellites built and flown by MSU, and highlight the University's role in preparing students to work in the challenging field of aerospace.

## **Osborne to receive Thurston Banks Award**

Peggy Osborne, who has served as MSU's faculty athletics representative (FAR) since 2001, has been named one of two recipients of the 2015 Ohio Valley Conference Thurston Banks Award. The award is named after Dr. Thurston Banks, who served Tennessee Tech's athletic department for 31 of his 34 years on the faculty and served as FAR for 25 years before stepping down in 2006.

Osborne has been a faculty member at MSU since 1979, currently serving as an associate professor emeritus of marketing in the College of Business and Public Affairs. Her primary responsibilities as FAR include monitoring academic integrity and student-athlete well-being. Osborne reminds student-athletes they are students first and athletes second. She works on a weekly basis with MSU's athletic administrators, coaches, student-athletes and a variety of professors. Her position reports directly to the university president.



## MSU receives clean reaccreditation report from SACSCOC

The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) formally announced in December that Murray State University has been unconditionally reaffirmed for accreditation. The university's reaccreditation status with no recommendations is rare since only a small number of the very best institutions of higher education achieve that status. The Quality Enhancement Plan created by Murray State "Bring Learning to Life," was developed to improve experiential learning outcomes through the implementation of learning experiences in which students apply principles learned in the classroom in a real-world setting, along with professional development opportunities related to such relevant pedagogical areas as application, problem-solving, critical/creative thinking and information literacy.

## Graduate student/veteran honored by NSF in Arlington

MSU graduate student and graduate assistant Scot Peterson was one of 11 military veterans with Graduate Research Fellowships honored by the National Science Foundation (NSF) at NSF headquarters during the "Saluting Veterans in STEM" event in Arlington, Va. The selected veterans/students met with project directors from a variety of academic



fields to discuss ways to engage, promote and keep veterans in STEM fields, and shared their ideas with the NSF on how the agency can assist veterans in pursuing careers and goals in scientific research with new programs, grants and fellowships. Program directors also discussed

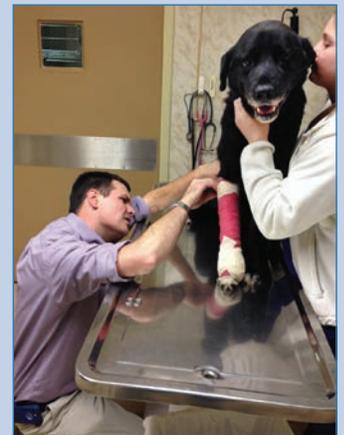
with the veterans additional opportunities that are available in the NSF Graduate Research Fellowships program. Peterson is shown with his poster depicting his research in the MSU Watershed Studies Institute on the ecological restoration of freshwater systems.

## MSU and UK outscore all other publics for general studies

Murray State University was once again one of only two public universities in Kentucky receiving a "B" for its general studies program. Nationally, only 23 public and private schools scored an "A." The University of Kentucky tied with Murray State on this rating by the American Council of Trustees and Alumni (ACTA). Asbury University and Georgetown College were the only private schools in Kentucky to rate a "B."

## Murray grad on Nat Geo Wild

Murray State University graduate Dr. Jared Tapp appeared in the premiere of *Bandit Patrol*, a new television series on the National Geographic Channel (Nat Geo Wild).



The show features wildlife rehabilitation in West Kentucky. Tapp co-owns and is a veterinarian at Pennyrile Animal Clinic in Madisonville, Ky. He graduated from MSU's Hutson School of Agriculture in December 2006, and earned a master's degree in agriculture with an emphasis in equine reproduction from MSU two years later. His D.V.M. is from Auburn University.

## Kentucky bourbon maker shares marketing expertise with students

Maker's Mark Distillery Chairman Emeritus Bill Samuels Jr. spoke to the "MKT 578: Social Media and Marketing" course taught by Dr. Glynn Mangold, professor of marketing. The visit was especially appropriate since each semester Mangold covers the Maker's Mark Ambassador Program in the course, pointing to it as one of the most effective marketing tools ever created by a brand. That program was created at Maker's Mark by Samuels.



## Murray is host to CMT visit

Murray State played host to CMT (Country Music Television) when its *Top 20 Countdown*, co-hosted by Katie Cook and Cody Alan, dropped in on campus and the city, filming various segments for an episode of the show.

Murray State nabbed the visit by winning the CMT Hot 20 Country College Town Sweepstakes, beating out much larger universities. CMT closed the visit with a concert featuring Big & Rich, Joe Nichols and Chase Bryant.



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## Murray State's BMC earns CASE-KY awards

The MSU branding, marketing and communication area was the recipient of two Grand Awards, four Awards of Excellence and three Special Merit recognitions from CASE-Kentucky. Winning projects included the university annual report, a special publication on the opening of the new MSU Paducah Regional Campus, the media relations program on MSU's hemp research, *The Blue & Gold* magazine, best practices for the Take Your Place branding campaign, photography, the news tabloid *The Review*, and feature writing.

## Murray makes honor roll for fifth year



The Corporation for National and Community Service named Murray State University to the President's Higher Education Community Service Honor Roll for the fifth consecutive year. Initiated in 2006, the honor roll recognizes colleges and universities

that "achieve meaningful, measurable outcomes in the communities they serve."

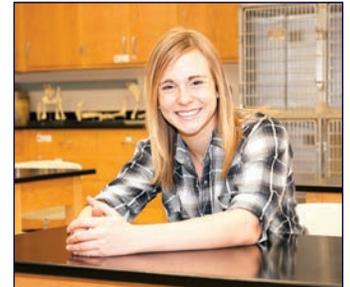
## Alexander honored with state award



Constance Alexander, an award-winning writer and instructor in the department of English and philosophy, received the media award as a recipient of a Governor's Award, given out by the Kentucky Arts Council. Alexander is a poet, playwright, fiction writer, newspaper columnist and independent producer with extensive publication, production and broadcasting credits.

## Bio-burner heated in time for winter cold

The bio-burner, located at MSU's west farm, is being used this winter to heat the university's equine center to a moderate temperature. Alternative fuel sources abound for the technology, including stalks from the university's first hemp harvest. Such fuels make use of what might otherwise be considered waste. Anne Jablinski, an MSU Presidential Fellow who is majoring in animal science and minoring in chemistry, has conducted extensive research on green energy fuel sources such as hemp.



## Parisek wins the 2014 Farnam All-Around Amateur Award

December graduate Morgan Parisek was named the 2014 Farnam All-Around Amateur Winner at the American Quarter Horse Association World



Championship Show with her horse, Better Buy The Minit (his call name is Murray). Together, Parisek and Murray earned the world championship title in hunter hack, and reserve world championship titles in hunt seat equitation and equitation over fences. They also placed third in working hunter and eighth in jumping. Parisek received a prize package that included \$15,000, plus \$1,000 in Farnam products, an original Lisa Perry Bronze, an embroidered WeatherBeeta horse blanket and a rose bouquet.

**TAKE YOUR PLACE** in  
**THE MURRAY STATE TRADITION**



# GOLD RUSH

FEBRUARY 2015 NORTHERN KENTUCKY UNIVERSITY

## GO FIGURE

# 3,000

Number of high school and middle school students President Mearns visited with during the Road to NKU Commonwealth Tour last Fall

# 52%

Increase in the number of students (982) participating in NKU dual-credit courses in local high schools since 2013

# 1,649

Hours of community service performed by NKU student-athletes last year



## NKU INFORMATICS HELPS LURE \$20M ANNUAL INVESTMENT IN KY JOBS

Applied research and a transdisciplinary focus at Northern Kentucky University are paying dividends for the region.

The most recent example comes from the Commonwealth's 2008 investment in the NKU College of Informatics. The \$35 million state investment, initially matched with \$19 million in private and federal dollars, has helped to secure 200 new Kentucky jobs with an average salary of \$100,000, or \$20 million in annual payroll.

Last month, the Archer Daniels Midland Company (ADM) acquired Erlanger-based Wild Flavors. ADM had originally planned to build its data center in Chicago, but after learning about the NKU College of Informatics and visiting Griffin Hall, ADM decided to build and staff the data center in Erlanger.

"NKU's College of Informatics helped seal the deal," said Dan Tobergte, president/CEO of the Tri-County Economic Development Corporation (Northern Kentucky Tri-ED). He said the ADM investment was "in no small part due to NKU's expertise."

NKU President Geoffrey Mearns said as the University establishes a world-class Health Innovations Center, the same energy and return on investment should be expected. "We have a top-quality team of health care, business, and community advisors at the center of this important population health initiative," he said. "Our faculty and staff are eager to help improve the health of our region and the Commonwealth."

The bottom line, Mr. Mearns said: "NKU is laser-focused on outcomes that will continue to provide our students with the best return on investment in their education and create a lasting impact on campus and beyond."

## COLLEGE CORNER

### CHASE COLLEGE OF LAW

NKU has a new 3+3 Accelerated Law Program that allows high-performing students to earn bachelor's and juris doctor degrees in six years, rather than the traditional seven. As a result, students will be able to save on tuition and will have an opportunity to begin their careers a year sooner. "We are thrilled to be able to offer prospective students a professional fast track with an opportunity to save both time and money," said NKU Chase Dean Jeffrey A. Standen.

**READ MORE:** <http://tinyurl.com/NKU-3Plus3>

# EXCLUSIVE NSA DESIGNATION PUTS NKU ON CYBERSECURITY FRONTLINES



NKU is the first institution in Kentucky to be designated as a National Center of Academic Excellence in Information Assurance/Cyber Defense. The designation puts NKU on the frontlines in preparing students to face the cybersecurity challenges faced by businesses and governments daily. Only 51 institutions in the country have met the rigorous academic criteria to receive the designation.

The CAE IA/CD designation is a program of the United States National Security Agency (NSA) and the Department of Homeland Security (DHS). The designation identifies NKU's cybersecurity program as a top-tier program in the nation.

"Our cybersecurity students are in high demand," said Dr. Kevin Kirby, dean of the NKU College of Informatics. "They have the ability to think critically in real time, and they are quick learners energetic enough to keep up with tools and techniques that change day by day."

**READ MORE:** <http://tinyurl.com/NKU-Cybersecurity>



## THE SCOREBOARD

Last fall, NKU student athletes combined to post the highest cumulative grade point average since NKU began recording student-athlete GPAs in 1983. The 3.22 cumulative GPA topped the previous record of 3.15 achieved in spring 2013. This marks the seventh consecutive semester in which NKU student-athletes have posted a 3.00 GPA or better. Men's tennis posted a 3.712 GPA to lead 14 programs which registered GPAs exceeding 3.00 last fall, including five teams that set program records last semester.

## FACULTY FOCUS

Before he graduated from Princeton with a math degree, before he programmed computers on Wall Street, and well before he became a beloved NKU Chase College of Law professor, Ken Katkin was in charge of one of the most respected post-punk/independent music labels of its time. From 1984-96, Homestead Records released albums by legends of the indie and punk scenes, including Sebadoh, Sonic Youth, Dinosaur Jr., Big Black, and Swans. For two of those years (1990-92), Katkin helmed the flagship NYC-based indie label, which—as many non-major labels still experience—was running on a shoestring. He later earned his law degree and practiced in Washington, D.C., before coming to Chase in 2000 to teach entertainment, broadcasting, and constitutional law.

**READ MORE:** <http://tinyurl.com/NKU-Katkin>

## BRIEFS

### NKU EARNS CARNEGIE CLASSIFICATION RENEWAL

The Carnegie Foundation for the Advancement of Teaching has selected NKU to receive its 2015 Community Engagement Classification, renewing the university's 2006 classification. Transdisciplinary programs from across NKU's campus were considered, including the Mayerson Student Philanthropy Project and the Center for Applied Informatics, which draws upon student and faculty expertise to help organizations locally and beyond meet the challenges of the informatics age.

**READ MORE:**

<http://tinyurl.com/NKU-Carnegie>

### NKU TO ESTABLISH SCHOOL OF THE ARTS

In a move aimed at enhancing the educational experience of NKU students by making its arts programs more transdisciplinary and more efficient, the university is creating a School of the Arts within the existing College of Arts and Sciences. The new structure eliminates individual departments in favor of a more centralized model that will include programs, a school director, and faculty leaders who will help direct and manage curricular issues, day-to-day operations, and accreditation.

**READ MORE:**

<http://tinyurl.com/NKU-Arts>

### SOCIAL WORK STUDENTS PUBLISH ON MAYERSON EXPERIENCE

Three NKU social work graduate students have published an article in a public engagement journal describing a class project that allowed them to invest in nonprofits in order to address needs in an inner-city Newport neighborhood. A number of NKU faculty members have published in academic journals on student philanthropy, but articles by students are rare.

**READ MORE:**

<http://tinyurl.com/NKU-Mayerson>

### INKUBATOR GRADS TAKE TOP SPOTS AT 5 ACROSS FINALS

A pair of startups that have completed the NKU INKUBATOR program took first and second place in the fifth annual 5 Across Finals business pitch competition in December. The championship and \$4,000 grand prize was won by alumni Gary Darna and Jaime Rump for their presentation of CompleteSet; second place was won by Josh (alumni) and Jared (senior) Young for their company, Vegy Vida.

**READ MORE:**

<http://tinyurl.com/NKU-INKUBATOR>

## ALUMNI NEWS



For much of this past spring and into the fall, Kpandja Djawe ('06), an epidemiologist for the Centers for Disease Control and Prevention, was stationed in the middle of the Ebola outbreak in West Africa that has ravaged large swaths of the region. Djawe, who grew up in nearby Togo, Africa, was tasked with case identification and contact tracing – the detailed, often complicated work of tracking those who've had contact with infected individuals. The morning that Djawe was nearly killed began like most of his days there. He was up before 6 a.m., in a meeting by 7:30, and on the road at 9. On that sultry May day in the Guinean town of Guékédou—the epicenter of the Ebola epidemic—Djawe traveled the bumpy dirt roads for three hours to the village of Bamba...

**READ MORE:** [HTTP://TINYURL.COM/NKU-DJAWA](http://tinyurl.com/NKU-DJAWA)



## A Message from President Capilouto

More than three-and-a-half years ago, when Mary Lynne and I arrived on campus, we felt a stirring sense of place and the people who define our campus family. We are united by a common thread of devotion to the University of Kentucky – commitment manifest in our shared thirst for knowledge, discovery, engagement and healing. It is the same passion that links us to the countless individuals who shaped this special place for the last 150 years.

As the Commonwealth of Kentucky's Agricultural and Mechanical College, our founding mission was to, "teach such branches of learning as are related to the agriculture and mechanical arts, including military tactics, without excluding other scientific and classical studies, in order to promote the liberal and practical education of the industrial classes in several pursuits and professions of life."

Though we have grown since that time, and our mission has evolved to include rich and promising pursuits, we remain Kentucky's cornerstone of teaching, research, service and health care.

Over the last century and a half, the University of Kentucky has been a home for discovery, creativity, imagination and inspiration. Yet, our work remains unfinished; the challenges to our state

and nation persist, making the public, flagship research university more essential than ever before to finding the solutions to those complex challenges that remain unyielding to our world.

That is what it means to be a 21st century flagship and land grant research university. From our first Nobel Laureate to cutting-edge work in addressing health disparities, and from the artistic wonders that stir souls to our scientific creativity that inspires minds, we seek a brighter future through the contributions of our faculty, staff, students and alumni.



“Kentucky has been a home for discovery, creativity, imagination and inspiration.”

This year, we mark an historic occasion for the University as we celebrate the sesquicentennial anniversary of our establishment. In February – thanks to the work of the UK 150 Committee – we will host Founders Week; a week of events to celebrate the legacy of those who established our campus, nurtured its early work, uphold and sustain its mission today, and those who will carry forward our future.

This is a special time for the University of Kentucky. Our celebration has challenged us to reach into the depths of our past and unearth a profound history that will inspire us as we balance on the hinge of history. 🍷



# ROOTED IN OUR COMMUNITIES

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## The University of Kentucky in Appalachia

Over the next several months, the University of Kentucky will be examining and discussing the special relationship and partnership we have with the Central Appalachian region.

A new series of stories, "Rooted in Our Communities: The University of Kentucky in Appalachia", will examine the myriad ways in which UK faculty, staff and students are working in — and, more importantly, with — communities throughout the mountains. Those stories and other compelling features can be found at [www.uky.edu/appalachia](http://www.uky.edu/appalachia).

These stories bring to life the significant challenges and even more promising opportunities that exist not only in Eastern Kentucky, but throughout our Commonwealth in areas such as health care, energy and conservation, education and economic development.

As important, though, these stories will celebrate and promote the incredible culture and heritage of the region as well as the progress we've made together. The richness of the mountains emboldens our shared effort and the promise of tomorrow.

At the University of Kentucky, we take pride in the fact that our 150-year legacy of education, research, service and care means that we are — in creative and compelling ways — the university for Kentucky.

In Appalachia, that service and those partnerships are deeply rooted and grounded in a sense of community ... in a spirit of partnership ... with the idea that we, too, look toward the hills — for help and shelter, for partnership and meaning ... for stronger communities and for a brighter future for our Commonwealth. 🍷

## First Patient in Kentucky Receives Life-Altering Neuropace Implantation to Treat Epilepsy at UK HealthCare



Cheryl Castle is one of 3 million Americans with epilepsy, and one of the unfortunate 30-40 percent whose seizures are uncontrolled. For those patients, life is extremely limited: they cannot drive or hold a job. Furthermore, they are often stigmatized, which can lead to isolation and depression.

Recently, she sat with her three boys and thanked her doctors at UK HealthCare for choosing her to be the first Kentucky patient to receive Neuropace, a novel device that helps lessen the frequency and severity of her crippling epileptic seizures.



Dr. Bensalem-Owen

Cheryl's seizures began 18 years ago, stopping only during her pregnancies. Doctors unfamiliar with epilepsy gave her varying diagnoses, and even suggested her problems were psychological. The Lowmansville, Ky. native then made the 2 1/2 hour trek to UK, where Dr. Meriem Bensalem-Owen, director of the Epilepsy Program at UK HealthCare's Kentucky Neuroscience Institute, began the process of pinpointing the location of her seizures and drawing from an arsenal of treatments to help Cheryl.

Dr. Bensalem-Owen then tried a procedure called vagus nerve stimulation, in which a small device delivers regular impulses of electrical energy to the brain via a large nerve in the neck called the vagus nerve. It didn't work either.

Even worse, brain mapping showed that the focus of her seizures was in a crucial area of the brain controlling motor function. Surgery to remove the brain tissue, the usual next step in the treatment process, was not an option for Cheryl without the potential for permanent paralysis.

By then, however, Drs. Bensalem-Owen and Craig van Horne, the KNI neurosurgeon working with Cheryl, had heard of a novel therapy called Neuropace that was in clinical trials.

The system includes a box about the size of a flash drive that is implanted in the skull, two wires containing electrodes that rest on the area of seizure focus, and two external components: a remote monitor and a programmer.

According to Dr. Van Horne, the device also records seizure activity, which Cheryl retrieves every day using a special monitor and sends to a database. Dr. van Horne implanted the device in a 5-hour surgery last November. After four weeks of recovery, Dr. Bensalem-Owen took the device "live." Cheryl says she can already tell it's helping.

Dr. Bensalem-Owen stresses that Neuropace is not a cure -- Cheryl will continue to have seizures, but "we hope they will be fewer in number and less severe," she says.

"To the extent that Neuropace gives Cheryl relief and helps her resume a more normal life, it's a helpful treatment."



## Kentucky, UK Help Establish \$259 Million Institute for Advanced Composites Manufacturing Innovation



As part of the National Network for Manufacturing Innovation, President Obama announced January 9 the launch of the Institute for Advanced Composites Manufacturing Innovation (IACMI), and the Commonwealth and University of Kentucky as core partners of the institute. As core partners, UK along with the University of Tennessee, Oak Ridge National Laboratory, National Renewable Energy Laboratory, Purdue University, Michigan State University, University of Dayton Research Institute and their respective states, are the founding partners that helped establish IACMI and are essential to the successful management and operation of IACMI. UK's research will focus on producing low cost, high strength carbon fibers for lightweight composite structures for improved vehicle energy efficiency.

## UK Receives 2015 Community Engagement Classification from the Carnegie Foundation

Recognizing the University of Kentucky's commitment to its surrounding local, national and global communities, the Carnegie Foundation for the Advancement of Teaching recently announced the university has been selected to receive the 2015 Community Engagement Classification.

In a letter from the Carnegie Foundation and New England Resource Center for Higher Education, UK was praised for its community engagement practices. The letter stated that UK's report "documented excellent alignment among campus mission, culture, leadership, resources, and practices that support dynamic and noteworthy community engagement."

The 2015 classification is valid until 2025, at which point UK can apply again for re-classification.



## A Letter from the President

Dear Friends,  
The University of Louisville has a statutory mandate to be a “premier nationally recognized metropolitan research university.” We are often asked, “What exactly does this mean?”

Clearly, “premier” means an unrelenting commitment to quality and excellence. We don’t want to be the biggest, we want to be the best; we cannot be all things to all people, but what we do, we will do with a passion for excellence.

The Kentucky General Assembly has designated two universities in Kentucky to be “research” universities—our faculty engage in creativity, scholarship and the creation of new knowledge to improve economic opportunity and the quality of life for the people of our community and state.

And finally, “metropolitan” is more than just a recognition that we are located in the state’s only major urban area. Being a metropolitan university means that engagement in our community, region and state is an integral part of our DNA. Along with teaching and research, we value community engagement and working daily to improve education, economic opportunity, healthcare and social services in our community and region.

The University of Louisville has just received the Carnegie Classification as a Community Engagement university—this is a big deal! It means that our involvement in our community has been evaluated and we have achieved certain benchmarks and standards of excellence. So, we are proud of this Carnegie Foundation recognition.

We are also proud of what is happening on our own campus. A \$1.2M grant to train more teachers to work with students with disabilities, Forbes’ recognition of three of our recent graduates as among the thirty best entrepreneurs/innovators in the country, and the work of our Conn Center for Renewable Energy with their recent discoveries and success of a startup business.

Finally, we exist for our students, and their success continues to amaze us. Miss Kentucky USA, Katie George, is proof that brains, athletic ability and beauty can all be wrapped into one amazing individual. 2015 will be an exciting year, as we continue to work daily to achieve the mandate that you the people of the Commonwealth have given to us.

**James R. Ramsey** President, University of Louisville

## Three alums on Forbes 30 Under 30 list

*Forbes Magazine* named three J.B. Speed School of Engineering graduates to its 2015 “30 Under 30” list. An A-List team of judges developed a list of 600 innovators, men and women under the age of 30, across 20 different categories. Marianne Barnes made the Food and Drink list, while Jeremiah Chapman and Alex Frommeyer appeared in the Manufacturing and Industry category.



Marianne Barnes, master taster for Woodford Reserve

Jeremiah Chapman, founder of FreshFry LLC

Alex Frommeyer, co-founder of Beam Technologies



## UofL repeats as Carnegie Community Engagement University

The Carnegie Foundation for the Advancement of Teaching again recognized the University of Louisville for its commitment to community engagement. UofL joined 239 U.S. colleges and universities on the list and was one of 157 schools, out of 188 eligible, to achieve reclassification.

President James Ramsey said, “(t)he university faculty, staff and students continue to play vital roles in the social, economic, health and educational well-being of this city, and our community partners provide opportunities for our students to use their talents in real-world settings.”



President James Ramsey with students from J.B. Atkinson Elementary, a Signature Partnership school

## Ambassador brings bipartisan message to UofL

Samantha Power, the U.S. ambassador to the U.N., spoke at UofL this month. During her speech on bipartisanship and U.S. foreign policy, Power praised UofL's humanitarian efforts in the fight against Ebola. Other topics included confronting violent extremism and advancing democracy in Burma.



U.S. Ambassador to the U.N. Samantha Power greets McConnell Scholars during her engagement at UofL.

## Junior crowned Miss Kentucky USA

Katie George has earned local, state, national and international acclaim as a top volleyball player. Earlier this month, George added a new kind of title to her name: Miss Kentucky USA. She hails from Louisville and is majoring in both communications and sport administration. George will compete in the Miss USA pageant in September.



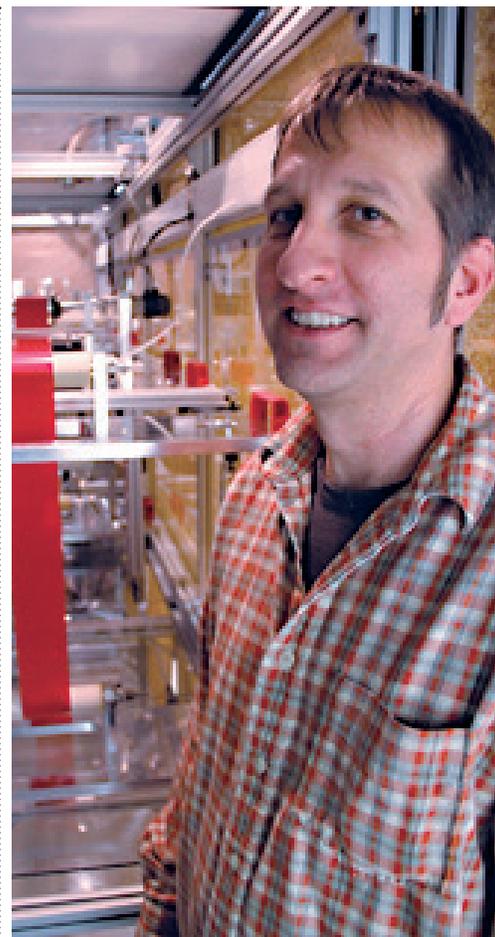
Volleyball player Katie George had never entered a beauty pageant before.

## UofL receives \$1.2 million for teacher training

A \$1.2 million federal grant will fund two years of tuition for students to earn dual certification in elementary education and teaching individuals with moderate/severe intellectual disability. Assistant education professor Robert Pennington explained "(t)here has been a perennial shortage of teachers trained to help special needs children. This grant should go a long way toward addressing that problem."



Assistant education professor Robert Pennington will oversee the dual certification program.



Research scientist Thad Druffel, who works in solar manufacturing research and development

## School of Music Receives Largest Ever Gift

The School of Music will create the "Max Baumgardner Endowed Fund for Excellence in Jazz Studies" with its half of a \$12.6 million planned gift. Max Baumgardner said, "I've always loved music. I'm sort of a fanatic." Baumgardner pledged the other half of the gift to UofL athletics, in part to support student academic resources.



The jazz studies program will use \$6.3 million for faculty positions, student scholarships and additional programming.

## Conn Center startup earns national grant

A company that originated at UofL's Conn Center for Renewable Energy Research, Bert Thin Films LLC, received a \$225,000 grant from the National Science Foundation. The small business technology grant will support the development and commercialization of a new material to reduce the costs associated with manufacturing solar cells. Bert Thin Films was started in 2014 to commercialize technology developed by Conn Center personnel Thad Druffel and Ruvin Dharmadasa.

Western Kentucky University news for the Council on Postsecondary Education, February 2015  
For more WKU news, visit [www.wku.edu/news](http://www.wku.edu/news).



*WKU President Gary Ransdell parachuted with the U.S. Army Golden Knights to deliver the game ball for the WKU-Army football game on Nov. 15.*

**6 WKU students honored by Gilman International Scholarship Program**

Six WKU students have been honored by the nationally competitive Benjamin A. Gilman International Scholarship Program. Bridgette Davis of Bowling Green, Amy Givens of Bowling Green, Jeremiah Stringer of Monticello, Megan Lemily of Bowling Green and Cody Tutt of Owensboro were named Gilman Scholars and will receive up to \$5,000 each toward their study abroad or internship program costs. Marie Angeles of Somerset was named an alternate. Davis and Stringer will be student teaching in Ecuador; Givens will study healthcare in India; Lemily will student teach in Spain; and Tutt will study in South Korea.

**Chumbler named dean of College of Health & Human Services**

Dr. Neale Chumbler, a 1991 WKU graduate, will return to the Hill as the new Dean of WKU's College of Health & Human Services.

Dr. Chumbler was a Professor and Head of the Department of Health Policy and Management at the University of Georgia. He replaces Dr. John Bonaguro, who is returning to the faculty after 12 years as the founding dean of the college.

He has a Ph.D. in Sociology from Case Western Reserve University, a master's degree in Sociology from WKU, and a bachelor's degree in Sociology from Murray State University.

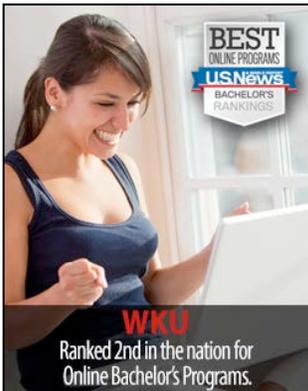
Since it was created 12 years ago, the College of Health & Human Services has seen strong enrollment growth; the addition of the Medical Center-WKU Health Sciences Complex; and the addition of doctoral programs in nursing practice and physical therapy.



*Dr. Neale Chumbler*



WKU's 250-acre Bowling Green campus has been awarded Level I Accreditation by the ArbNet Arboretum Accreditation Program and The Morton Arboretum. The WKU Arboretum is home to more than 3,400 trees spread throughout the campus. It serves as an urban forest and a living laboratory for the public and has more than 27 miles of self-guided walking paths.



### U.S. News ranks WKU's online bachelor's program 2nd in nation

WKU's online bachelor's degree programs have been ranked second in the nation by U.S. News & World Report. WKU finished in a three-way tie for Best Online Bachelor's Programs with Daytona State College and University of Chicago-Illinois. Pennsylvania State University World College was first.

WKU was also ranked 11th in Graduate Criminal Justice Programs, 35th in Graduate Education Programs, 70th in Graduate Nursing Programs and 84th in Master's of Business Administration Programs.

In fall 2014, 4,949 WKU undergraduates took at least one web course.

### WKU graduate's poetry collection a finalist for prestigious literary award

WKU graduate Saeed Jones' debut collection *Prelude to Bruise* is a finalist for best poetry book of 2014 in the prestigious National Book Critics Circle awards. Jones received his bachelor's degree in English from WKU in 2008 and was a member of WKU's forensics team. He is the editor of BuzzFeed LGBT, a Pushcart Prize-winning poet and received his MFA in Creative Writing at Rutgers University—Newark. Jones was born in Memphis, Tennessee, and raised in Lewisville, Texas. He lives in New York City.

### WKU receives 2015 Community Engagement Classification

WKU has received the 2015 Community Engagement Classification from the Carnegie Foundation for the Advancement of Teaching. WKU is one of 361 institutions that now hold the classification, which is valid until 2025.

"The Carnegie Community Engagement Classification is a reaffirmation that indicates that WKU's community engagement mission is becoming fully institutionalized," Leah Ashwill, director of the WKU ALIVE Center for Community Partnerships, said. "While there is still much to be accomplished in the way of public work and engaged learning, community engagement has become part of the fabric of WKU's tradition of excellence."

