Guest commentary: The future of the research university

By Brady Deaton | Posted: Wednesday, June 20, 2012 12:00 am

Last week, a landmark report on the future of public higher education in the United States was issued by the National Academies' National Research Council. The report is a wake-up call about the alarming direction of higher education because of decades of funding decline and faltering public educational policy.

The report offers solutions to this fiscal exigency and hope for revitalizing public higher education by recommending a financial model of shared responsibility among research universities, government, business and industry and philanthropy. As chancellor of the University of Missouri, I know that our efforts in reducing costs, educating more students with less funding and bolstering the state's economy by attracting outside investment have helped demonstrate that we truly are the state's partner. Thus, we have avoided the extreme reductions in support that other land-grant universities have suffered.

I urge readers to study this report and its 10-point action plan, which is available at www.nap.edu.

In essence, the report, "Research Universities and the Future of America: Ten Breakthrough Actions Vital to Our Nation's Prosperity and Security," calls for a new social contract that focuses on federal responsibility specifically for research and graduate education, each state's need to increase funding for undergraduate education and greater investment from the private sector to bolster innovation, technology, critical research facilities and workforce development.

This new action plan offers both challenge and opportunity to focus our efforts and resources in even more productive ways. To encourage dialogue among Missouri citizens and leaders eager to retain the quality of public higher education across the nation and in our state, MU will examine its status related to the 10 action steps and provide a public report on that status and progress.

As related to the report's recommendation, Strengthening Partnerships with Business, it is absolutely vital to Missouri's business and industry sector to fuel its expansion through innovation driven by multi-interdisciplinary research in plant and animal science, environmental resources, viticulture, medicine, veterinary medicine, computer science, chemistry, physics, engineering, the humanities and the arts, among others.

MU has long been known for the creation of networks to pursue advances in these areas that have translated into business/industry growth and job creation, demonstrated by our faculty's work with Monsanto, the Danforth Plant Science Center, the Missouri Botanical Garden, statewide telemedicine and the bioscience, life science and animal health corridors. MU's most recent new business start-ups that are consistent with the report's model for federally funded research and co-investment with the private sector include Organovo (organ printing) and Savage River Farms (soy chicken). Currently, the capital value of Organovo is spiraling after its initial public stock offering; indeed, the opportunities are limitless.
The Preamble to the Constitution of the United States declares that the role of government includes efforts to promote the
general welfare of the citizenry. From the outset of this nation, we, as a people, have known with certainty and espoused
with conviction that "education is America's ticket to the future" in its role of providing an informed citizenry and
workforce that are at the heart of our great democracy.

This report from some of America's most prominent thinkers and leaders warns us that universities will not move forward
— they cannot even hope to maintain current status — without strategic and bold actions as outlined. I look forward to
working with colleagues in the University of Missouri System and throughout Missouri higher education, as well as state
government leaders, to study and act on the recommendations in this report.

*Brady Deaton is chancellor of the University of Missouri.*
**Infants Can't Distinguish Between Large and Small Groups**

ScienceDaily (June 19, 2012) — Human brains process large and small numbers of objects using two different mechanisms, but infants have not yet developed the ability to make those two processes work together, according to new research from the University of Missouri.

"This research was the first to show the inability of infants in a single age group to discriminate large and small sets in a single task," said Kristy vanMarle, assistant professor of psychological sciences in the College of Arts and Science. "Understanding how infants develop the ability to represent and compare numbers could be used to improve early education programs."

The MU study found that infants consistently chose the larger of two groups of food items when both sets were larger or smaller than four, just as an adult would. Unlike adults, the infants showed no preference for the larger group when choosing between one large and one small set. The results suggest that at age one infants have not yet integrated the two mental functions: one being the ability to estimate numbers of items at a glance and the other being the ability to visually track small sets of objects.

In vanMarle's study, 10- to 12-month-old infants were presented with two opaque cups. Different numbers of pieces of breakfast cereal were hidden in each cup, while the infants observed, and then the infants were allowed to choose a cup. Four comparisons were tested between different combinations of large and small sets. Infants consistently chose two food items over one and eight items over four, but chose randomly when asked to compare two versus four and two versus eight.

"Being unable to determine that eight is larger than two would put an organism at a serious disadvantage," vanMarle said. "However, ongoing studies in my lab suggest that the capacity to compare small and large sets seems to develop before age two."
The ability to make judgments about the relative number of objects in a group has old evolutionary roots. Dozens of species, including some fish, monkeys and birds have shown the ability to recognize numerical differences in laboratory studies. VanMarle speculated that being unable to compare large and small sets early in infancy may not have been problematic during human evolution because young children probably received most of their food and protection from caregivers. Infants' survival didn't depend on determining which bush had the most berries or how many predators they just saw, she said.

"In the modern world there are educational programs that claim to give children an advantage by teaching them arithmetic at an early age," said vanMarle. "This research suggests that such programs may be ineffective simply because infants are unable to compare some numbers with others."

VanMarle's research was published in the *Journal of Experimental Child Psychology.*
COLUMBIA, Mo. (AP) - Campus police have shot and killed a runaway steer that fled a University of Missouri slaughterhouse and seriously injured a man during the pursuit.

The 1,300-pound Angus steer escaped from the university's veterinary school just before 8:30 a.m. Tuesday. The animal led campus officers, an MU livestock handler and its owners on a 90-minute winding chase through the campus, across a busy Columbia street and into the nearby East Campus neighborhood.

A tranquilizer dart failed to slow the steer, which ran into the sides of 2 campus police cars. A campus officer shot the animal three times behind an off-campus home.

The Columbia Missourian reports John Brune, whose son owned the steer, was hospitalized with a head injury he suffered while trying to help corral the animal.
Escaped steer shot dead in East Campus yard
By JANSE SILVEY

A roughly 1,300-pound Angus steer escaped today as it was headed for slaughter and led University of Missouri police on a chase through Columbia’s East Campus area before being shot.

The MU Police Department received a call at 8:26 a.m. about a steer that had gotten loose from the MU vet school area, MU police Capt. Brian Weimer said in a statement.

The privately owned steer was headed to the College of Agriculture, Food and Natural Resources’ abattoir for slaughter. It escaped when being unloaded at the facility, said Dusty Nagy, an assistant teaching professor at MU’s College of Veterinary Medicine and a livestock specialist.

When officers arrived, the steer was in University Parking Lot CG1, where officers worked with vet school staff and the steer’s owner to try to contain the animal.

The steer evaded staff and police officers then headed north through campus. In all, the animal traveled to a parking lot off Stadium Boulevard and along College Avenue and Hitt Street. Police attempted to tranquilize the steer near Paquin Tower, Weimer said.

Officers were able to stop the steer at 9:49 a.m. behind an Anthony Street residence. It was shot and killed. Just before 11 a.m., officers and crews from the vet school worked to haul the carcass from Clara Pike’s backyard at 1502 Anthony.

The steer was owned by Duane Brune of Pin Oaks Farm in New Haven. Brune declined to comment about the incident beyond saying that his father, John Brune, was injured by the steer during the chase. John Brune was taken to University Hospital and has broken facial bones.

The steer also damaged two MU police vehicles during the chase.

Pike said she wasn’t aware the steer was in her yard until she heard shots. “I looked out the window, but I didn’t know what the darned thing was,” she said. “I heard two shots. One was not loud, but one was a really big bang.”
COLUMBIA MISSOURIAN

Escaped steer near MU is shot after injuring man

By Mcredith Hood
June 19, 2012 | 3:18 p.m. CDT

COLUMBIA — A 1,300-pound Angus steer escaped from the MU slaughterhouse Tuesday morning, injuring one man as it ran along Paquin Street. The steer was ultimately killed by campus police.

MU Police Capt. Brian Weimer said John Brune was injured while he was trying to help police corral the animal at the Paquin Street side of the University Avenue Parking Garage.

Brune was taken by ambulance to University Hospital with a head injury. He is in serious condition, said Cheri Ghan, a spokeswoman for the hospital.

A call reporting the loose animal was received at 8:26 a.m., according to an MU Police Department news release.

The steer had jumped a fence while being unloaded at a slaughterhouse at East Campus Road and Rollins Street. The facility is operated by the MU College of Agriculture, Food and Natural Resources.

The animal was first spotted in university parking lot CG1, but officers, MU's College of Veterinary Medicine staff and the steer's owner, Duane Brune, were unable to contain it.

An eyewitness reported seeing the steer running across lawns on Rosemary Lane at 9:10 a.m. with MU police officers in pursuit.

The steer continued to zigzag across College Avenue toward East Campus. Authorities tried to tranquilize it but were not successful.

After the injury, the officers' primary concern shifted to stopping the runaway steer before someone else got hurt.

"Luckily, no one else was hurt," Weimer said.
Pursuit of the steer continued for about 90 minutes and ended when it was shot three times by an MU police officer just before 10 a.m. It was downed behind a house in the 1500 block of Anthony Street.

The animal also damaged two campus police cars when it ran into the sides of the vehicles.

Dusty Nagy, an assistant professor with the College of Veterinary Medicine, said typically, both tranquilizing and euthanizing are not needed to capture or contain a loose animal.

"Once you have animals in a heavily populated area, things get tricky," Nagy said.

Clara Pike, 94, who lives in the house on Anthony Street where the steer died, was eating breakfast when she was startled by loud bangs. After hearing the sound of shots, she said she looked outside to see the animal lying in her backyard.

The process of removing the steer from behind Pike's residence began at 10:30 a.m. with a tow truck winch. A cable pulled the steer through the yard, up a ramp and onto a flatbed trailer provided by the veterinary school.

Weimer said this is not the first time livestock has escaped from the area.

The steer's remains will be handled at the discretion of CAFNR and Duane Brune, Weimer said.

Nagy said the animal is not suitable for consumption.

*Emma Ross and Megan LaManna contributed to this article. Supervising editors were Ted Hart, Elizabeth Brixey and Jeanne Abbott.*
MU researcher links childhood obesity, math skills

By The Associated Press
June 19, 2012 | 8:58 a.m. CDT

COLUMBIA — An MU researcher reports she has found a link between childhood obesity and poor math skills.

Sara Gable is an associate professor in the university's Department of Nutrition and Exercise Physiology. Her research followed more than 6,250 children from kindergarten through fifth grade.

Gable found that both boys and girls considered obese in kindergarten performed worse on math tests starting in first grade. Fewer gaps were seen in children who became obese when they were older.

She concluded the poor math performance was connected in part to feelings of sadness, loneliness and other shortcoming in social skills.

The study was published in the journal Child Development. Gable collaborated with researchers from the University of Vermont and the University of California, Los Angeles.
COLUMBIA MISSOURIAN

MU's biggest ever Summer Welcome draws parents' joys, concerns

By Lauren Dixon, Megan LaManna
June 20, 2012 | 6:00 a.m. CDT

COLUMBIA — On Friday, as Elizabeth Dimond watched her son exchange contact information with new friends on the steps of Jesse Hall, she seemed happy, even proud.

But as she talked about son Trey Dimond’s departure for college and her new status as an empty nester, her motherly pangs came through.

"It will be very sad," she said.

The Dimonds, who are from the Chicago area, were on campus last week for the 2012 Summer Welcome, an orientation for new MU students and their families.

This year’s program is the largest since it was started in 1969. Nearly 6,100 students will attend Summer Welcome this year, up more than 450 from last year, said David Rielley, director of new student programs and senior coordinator for the Department of Student Life.

There will be 29 sessions this summer — 24 for freshmen and five for transfer students — which is three more sessions than there were in 2011, Rielley said. Registration closed in early June instead of early July.

The growth in Summer Welcome mirrors the continuing increase in freshman enrollment. Although numbers aren’t firm yet, almost 6,500 freshmen are expected on campus this fall.

The two-day welcome is meant to provide students and parents with necessary information and resources to improve their college experience. Peggy Clear was visiting from Belton with her husband, Dick Clear, and her soon-to-be freshman daughter, Courtney Clear. Peggy Clear called it information overload. Still, the family was enjoying itself.

Peggy Clear is excited for her daughter to go to college and get involved with school, but she doesn’t want academics to take second place. Courtney Clear, who will live in Johnston Hall and take 13 credit hours in her first semester, plans to major in business.
"I think she'll come down here and never come home," Peggy Clear said.

For parents, there are usually some anxieties coming into Summer Welcome. Part of the information they get is to help them help their children when problems come up later, Rielley said.

"I'm excited for her, and she's ready, but it'll be hard," said Lori Giffey of Homewood, Ill., whose daughter, Jordan Giffey, plans to major in journalism.

Jordan Giffey applied to three schools and decided on MU after a campus tour, her mother said, adding that while they still made a visit to the University of Iowa, there was no comparison. They skipped a visit to the third school.

Josephine Peterson plans to study broadcast journalism and French; her dream is to work for the BBC as a political correspondent. While at Summer Welcome, the Dallas freshman met with her adviser and took the French placement exam.

"I feel really comfortable here — that I don’t have to pretend to be something I'm not," Peterson said.

Students at Summer Welcome also learn about health and wellness, roommate relationships and good study habits, Rielley said.

When this year’s Summer Welcome wraps up next month, it will almost be time to start the next one. Preparation for next year's Summer Welcome begins at the end of August.

New students tend to start out shy and self-conscious about seeming silly, Rielley said. Members of the Summer Welcome staff aim to have fun in their role and engage in a little silliness themselves. He said it's part of their job to portray the message: "This is college. You can be yourself."

*Supervising editor is Elizabeth Brixey.*
The Tribune's View

Health law
Supreme Court decision coming

By Henry J. Waters III

Tuesday, June 19, 2012

According to a survey by the University of Missouri Political Economics Research Lab, most people want the U.S. Supreme Court to strike down the Affordable Care Act.

Jeff Milyo, a professor of economics in the College of Arts and Science, and Professor Lilliard Richardson of MU's Truman School of Public Affairs conducted the survey to find how public confidence in the court might be affected by a divided decision.

In recent years, the Supreme Court has reached a number of controversial 4-5 decisions in which justices seemed to divide as much along ideological as legal lines. The classic was Gore v. Bush, which helped secure Florida electoral votes and elect President George W. Bush in 2000. The current health care decision shapes up with similar political overtones.

The recent MU survey shows a familiar pattern. When the court reaches a decision seen as political, the public criticizes the integrity of the court depending on which way the decision goes. In the recent survey, Milyo and Richardson found if the court throws out all or part of the law, the public will be less critical of the integrity of the court than if it upholds the law. Public perception of integrity is dependent on agreement with the decision.

Surely most Americans want members of the court to ignore this sort of extraneous public noise. Ideally, the justices would live in some sort of hibernation so they know nothing of what the public thinks about their constitutional decisions. But no such thing has ever been possible, and many who want a controversial outcome pray a loud public outcry will have an effect.

From this distant venue, I reckon there is a legitimate legal question about the part of the law mandating purchase of health insurance. There is a good argument why the provision was included, but if it is thrown out, that's not the end of the law. Indeed, that outcome could clarify the road ahead.

But no such legal justification exists for questioning the law itself. If government could establish Medicare and Medicaid, it can expand the concept legally — and should do so for civic reasons.
In a few weeks, if the court throws out the mandate, we will evaluate circumstances anew. We will do the same if it upholds the mandate. In the meantime, what the public wants the court to do is of passing political interest but surely will have nothing to do with the conclusions of the justices, at least not if their integrities are intact.
Regents expected to toughen KU admissions standards

New admission targets, expected to pass today, call for higher GPA, college test scores.

By MARÁ ROSE WILLIAMS

MU mention on page 3

Stricter admission standards mean it will become harder for some to walk past the iconic Jayhawk statue in front of the Kansas Union as KU students.

Not only will it be harder to get into KU in the future, but starting in the fall it will cost more, too.

Regents today plan to vote on a tuition and fee hike for all six of the four-year universities they govern.

The universities have proposed an average 5.2 percent increase in the tuition and student fees for undergraduates living in the state. Hikes range from 3.5 percent at Wichita State to 7 percent for undergraduates taking classes at the University of Kansas Medical Center.

Tuition and fees are going up 4.9 percent, or $209.30 per semester, for a full-time undergraduate carrying 15 credits hours at KU in Lawrence.

At Kansas State University a similar student will pay 5.1 percent, or $194.70, more per semester.

Note to the high school class of 2016: If you’re looking to attend the University of Kansas, start cracking the books.

That C average will no longer get you in.

You’ll need at least a B and higher standardized college admission test scores than have ever been required by a Kansas public university.

When the Kansas Board of Regents meets in Topeka today, members are expected to make KU a more elite school, kicking in higher admissions standards in four years. That gives this year’s high school freshmen time to pass the required courses and maintain the grades they’ll need to become KU material.

If those requirements were in place today, roughly 35 percent of the freshmen admitted last year would not have made the cut for automatic admission to KU.
The new rules would demand freshmen take the necessary precollege classes, graduate from a high school or home school with either a minimum 3.0 grade point average combined with a 24 score on the ACT or 1090 SAT; or a minimum 3.25 GPA and a 21 ACT or 980 SAT.

Students whose grades and test scores are just shy of those standards would have their admission application reviewed by a committee. It would look at the strength of the student’s high school coursework, grade trends, academic potential, diversity, family circumstances, school and community involvement and the student’s ability to benefit from support services available at the university. If your parents or grandparents were Jayhawks, that counts, too.

“(The) standards are not set up to keep students out but to keep students in,” said Dan Lykins, a regent from Topeka. “I want to see kids graduate from KU. ... I think we are giving students a better chance to succeed by not putting them in a position where they will fail. I’m positive we will improve retention and graduation rates.”

University leaders and regents believe that by raising admission standards KU will be able to boost its freshmen retention rate — more than 20 percent don’t survive their first year — and move its graduation rate above the current 60 percent of those who enroll as freshmen.

The goal is to see both rates climb 10 percent within a few years after the new standards take hold.

By letting in only more accomplished students, the school hopes to see a higher percentage do well on campus.

Only KU, out of the six schools that fall under the Regents, would see the standards tick up. That will separate KU from the rest, and shut off the Lawrence university for some potential students.

Yet setting the state’s flagship university beyond the reach of some students is sure to draw criticism.

Wyandotte High School Principal Mary Stewart is not sure changing admission standards is the right way to fix the student retention and graduation rate problems.

“Listen to what that’s saying: So let’s keep certain kids out. There’s something that bothers me about that,” she said. “They talk about the fact that they aren’t retaining students and they’re addressing admission standards for that. I’d be real curious to find out why students aren’t staying for graduation and look at that.”

Stewart first heard about the proposal on Tuesday and questioned whether enough will be done to make sure students who would fall short of the new KU requirement would succeed elsewhere.

“Is there a guarantee they’d be successful at another (school)? Was it a different environment they needed, or was it different supports they needed?” she said. “I’m not at all talking about sugar-coating things for kids or babying them or holding their hand. But ... everybody learns differently.”

Educators can tell plenty of stories about students who earned a 24 or better on an ACT and then fell flat in college, Stewart said. And just as many about students who scored a 21 and thrived.
Leroy Parks, principal at Wichita Southeast High School and the father of three teens, one attending KU in the fall, has heard all the student success and failure stories too. He has mixed feelings about KU raising admission standards.

"I know the benefits of a good education," Parks said. "And I love KU. But I think this limits options for a lot of kids."

Parks would like to think that KU isn’t just trying to keep out some students, but investing in those it lets in.

"And I don’t mean just talking about it," Parks said. "I want to see it. Where’s the beef? Show me the money. I want it right in front of me when I sit down with my next one to decide where he’ll go to college."

KU administrators and regents said a month-to-month student success program will be in place for freshmen coming in under the new admission standards.

When compared to 10 research institutions that KU considers its peers — including the University of North Carolina at Chapel Hill, the University of Iowa and the University of Missouri — KU has the lowest graduation and retention rates.

Tim Caboni, vice chancellor for public affairs at KU, said the regents last December asked the university to toughen its admission standards. Administrators worked on the plan for about a year with students, faculty, high school counselors and principals and superintendents.

Currently all six schools — Emporia State, Fort Hays State, Pittsburg State, Wichita State, Kansas State and KU — follow the same admissions policy.

Students are automatically admitted if they score a 21 on the ACT (or 980 on the SAT) or rank in the top one-third of their class, or graduate with a 2.0 GPA after completing the required pre-college curriculum.

In 2014, those across-the-board admission standards will change slightly for incoming college freshmen.

The standards proposed at KU are similar to automatic admission standards at the University of Missouri. There, a student needs to pass the required high school courses and score 24 or better on the ACT, or a combined math and critical reading score of at least 1090 on the SAT. Students who don’t meet the requirements for automatic admission get in to MU by factoring class rank and grades.

Education officials said they think the tougher admission standards better suit KU’s mission.

“We are a comprehensive, international research institution,” Caboni said. “It requires a specific kind of student to be a success in that environment.”
COLUMBIA MISSOURIAN

Tiger Town clears Columbia City Council hurdle

NO MU Mention

By Emma Ross
June 19, 2012 | 2:24 p.m. CDT

COLUMBIA — With city approvals in place, Columbia’s newest game day event is set to kick off for the first Southeastern Conference home game Sept. 8 against the University of Georgia.

THE LATEST: Monday night, the Columbia City Council unanimously approved street closures on Eighth Street from Broadway to Elm Street as well as a waiver of the open container policy. Tiger Town organizers Greg Steinhoff and Bob Gerding told the council, "Tiger Town will be a first-class event that will make everyone in Columbia proud."

WHAT’S EXPECTED: Tiger Town will be a pregame block-party event that will take place four hours before kickoff of Southeastern Conference home games. The stretch of Eighth Street will be closed beginning at 3 a.m. the day of games. Tiger Town itself ends at kickoff, and the street will remain closed an hour or so while breaking down. There will be live entertainment, food vendors, beer booths and a family friendly area. Shuttles will be provided between Memorial Stadium and the downtown area before and after the game.

WHAT'S NEXT: “Now it’s all about making Tiger Town come together,” Steinhoff said. Tiger Town organizers are directing their attention to raising money, putting together a marketing budget and recruiting volunteers to be Tiger Ambassadors.

Supervising editor is John Schneller.
Runner Has Eyes On Two Prizes: Olympics, Ph.D.

Among the dozens of athletes hoping to leap, throw or run their way to London as part of the U.S. track and field team is 24-year-old runner Shannon Leinert. Leinert, who will compete in the 800-meter dash, has dreamed of the Olympics since she was 10 and winning races in St. Louis, her hometown. If that weren't enough, she's also working on a doctoral degree in special education.

Leinert now trains at the University of Missouri-Columbia track that revived her college career and allowed her to think seriously about the Olympics. It was also on this campus that she fell in love with special-needs students and decided to try to earn a doctoral degree.

Leinert then chose to tackle training and studying at the same time.

"At the beginning ... it was such an easy decision," Leinert says, "because I felt like school and running is a great complement for each other."

Dan Quigley, Leinert's boyfriend and sometime training partner, wasn't alone in thinking that probably wasn't the best idea.

"I've continually challenged her to lighten her load a little bit in terms of school so she can be more competitive," Quigley says. "I see this as a kind of once or twice in a lifetime opportunity, but she continues to challenge herself both in school and off the track. She never backs down from anything."

Leinert appears to be the ultimate multitasker, but she acknowledges that it took time to adjust to the demands placed on her by the high level of both academics and athletics.

"I think my running suffered a lot," she says. "Then this year, I'd say I've been a little more selfish with my running, and I'll close my laptop around 11:30 and just go to bed."

Fred Binggeli, who coached the 1988 Olympic champion in the men's 800 meters, has worked with Leinert for the past two years. He says once everything clicked for her, the difference was night and day.
"You saw a happy person; you saw a positive person," Binggeli says. "She only had one two-week period during the whole year that she seemed like she wasn't going to be able to handle everything; she was able to fight through that and get better and better and better."

That ability doesn't surprise Leinert's college coach, Rebecca Wilmes, who says for athletes in Leinert's situation, there's a lot of soul-searching.

"She had to go through it and get to the other side, still rolling and loving it," Wilmes says. "Things come together for her. It's a pattern."

Leinert is definitely rolling. When the outdoor track season started in March, she was completing the two laps of an 800-meter race in 2 minutes, 7 seconds. Earlier this month, her time was down to just a hair over 2 minutes.

She'll need to be even faster, though, to get to London: just under 2 minutes. Does she think she can do it?

"Yeah, I do. Especially after my workout the other day, I really would not be surprised this time if I went under 2 [minutes]," she says.

Binggeli is just as confident. He says it's nice to see Leinert end on a high note after struggling.

"If nothing else, she's going to come out with a personal best timewise," he says. "She's still young enough that if she doesn't make this Olympic team, you need to look four more years down the road."

The 2016 games in Rio de Janeiro are already on Leinert's mind. On her agenda before that: defending her dissertation next year.

The U.S. Olympic trials in track and field begin Thursday in Eugene, Ore.