

## ‘Fiscal cliff’ cuts would hurt higher education

By BRADY DEATON and BERNADETTE GRAY-LITTLE

Whatever you call them — fiscal cliff, austerity bomb, Debtocalypse—the impending automatic federal spending cuts are likely to endanger the nation’s short-term economic recovery.

But they also pose a real threat to the long-term prosperity of the United States.

Why?

For starters, federal financial aid, without which many students couldn’t attend college, stands to be cut.

At our universities, tens of thousands of students receive some sort of federal financial aid.

Without it, many of these students will take longer to graduate, will have to take out more loans and will simply drop out.

For these students, their future prosperity will be dimmed, and with it, the hopes of a nation that is facing serious workforce shortages in a range of fields.

When the recovery does kick in, businesses simply won’t be able to find the workers they need to grow.

Also set to be cut: research that not only creates jobs directly and through the commercialization of discoveries but that also saves lives.

At the University of Kansas, we just earned National Cancer Institute designation, which will provide cancer patients throughout the region with access to new treatments and clinical trials. This is on top of our federally supported research into Alzheimer’s, autism, and a range of other conditions, not to mention scholarship in a wide range of fields outside of health and wellness.

**The University of Missouri is home to the nation’s most powerful university nuclear research reactor, the focal point for many federally sponsored projects, from work on nuclear medicine and pharmaceuticals to structural engineering.**

And just this month, the MU Sinclair School of Nursing announced a \$14.8 million federal grant that will improve the lives of seniors by investigating ways to reduce re-hospitalizations of nursing home residents.

The automatic spending cuts would halt research in a range of areas, not only having immediate consequences for the researchers employed in these efforts, but harming the nation’s long-term growth and prosperity.

We agree with our fellow university leaders from around the country that all options — discretionary spending cuts and reforms to entitlements and taxes — need to be on the table.

There is no other way to avoid inhibiting the economy's short-term recovery while still addressing our long-term fiscal issues.

The best way to solve our long-term debt challenge is by creating an economy that has both the educated workers and new discoveries that lead to sustained growth.

Universities can help but not if our students and our researchers are hit with federal spending cuts that are preventable.

We're confident our representatives in Washington can find a responsible, balanced solution to this challenge. If Jayhawks and Tigers can come together for the good of the nation, surely Democrats and Republicans can, too.

## UM System prepares for consequences of potential federal cuts

By Dan Burley

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COLUMBIA — With little progress in "fiscal cliff" negotiations between the White House and Congress, the specter of sequestration — of deep cuts to federal spending including federally supported research and student-aid programs — looms less than a month away.

**If they come, the cuts will reduce funding to vital segments of the University of Missouri System, including federally supported research and student-aid programs, by more than \$23 million next year, according to a report released by the UM System Government Relations office in August.**

The higher education budget cuts are part of an automatic, across-the-board reduction to federal spending known as sequestration.

As a threat to produce a long-term budget agreement, Congress decided in 2011 to hold back — or sequester — \$1.2 trillion in funds over the next decade, beginning Jan. 2, 2013.

In total, sequestration will cut more than \$100 billion in military and domestic spending in 2013, according to an analysis on sequestration released by the White House in September.

The series of scheduled reductions in government spending combine with large tax hikes set to begin at the end of the year to form the "fiscal cliff" that policymakers and analysts warn could push the economy into a recession.

Federal funding shifts aren't out of the ordinary, said Rob Duncan, vice chancellor for research at MU. Federal funding for research and financial aid fluctuates with each year's budget.

Sequestration, however, "overrides any type of appeal," he said.

"I think all of us in research-officer positions are very concerned," Duncan said. "If you go and talk to your congressperson to try and salvage a particular program you're working on, it doesn't matter."

Based on the amount of federal funding the UM System received in fiscal year 2011, here's how the automatic spending cuts will affect the system in 2013 if sequestration occurs.

### **Research and development**

Federal investment in research and development falls under discretionary spending. The White House divides discretionary spending into two categories: defense and non-defense.

In its September analysis, the White House estimated that sequestration would result in a 9.4 percent reduction in defense discretionary spending and a 8.2 percent reduction in non-defense discretionary spending.

According to the UM System report, the system received \$271.8 million in non-defense federal research funds in 2011 from agencies such as the National Institutes of Health, the National Science Foundation, the Department of Energy, the U.S. Department of Agriculture and NASA.

Duncan said it's unclear how each agency would impose the cuts.

Some agencies might cut their own internal programs to protect university funding, or they might protect their own internal commitments — such as NASA's Flight Centers and the Department of Defense's research facilities — at the expense of university funding, he said.

He mentioned a federal cut in a certain class of the National Institutes of Health's nanoscience funding as a hypothetical.

"Say the budget line is \$250 million," he said. "That program may have 100 or 200 researchers funded throughout the U.S. As long as the aggregate reduction is 8.2 percent, it's pretty nondescript how the agency comes up with the money."

### **Cushioning the cuts**

For researchers to avoid the cuts, Duncan said it's imperative to communicate with the agencies.

In November, he sent an email to MU faculty and researchers to prepare them for the possible cuts. In it, he instructed researchers to speak to the agencies and emphasize how much their particular projects fits with the agencies' missions.

"This is unusual," said Harry Tyrer, a professor in the electrical and computer engineering department at MU. "The closest we've come to something like this is when the Republicans played chicken with the Clinton administration and the government shut down for three or four days."

Tyrer, who has been involved in the federal research grant process for 30 years, said he expects researchers are contacting their federal agencies right now, or vice versa, to square away a solution.

According to the UM System report, in a House Budget Committee hearing on April 25, a representative from the White House Office of Management and Budget predicted that the National Science Foundation, which provides more than \$32 million of research funding a year to the UM System, will fund 1,650 fewer basic research grants nationally under sequestration.

These grants would have supported roughly 20,000 researchers, teachers and students across the country, according to the report.

If federal agencies do discontinue programs, Duncan said, officials will have to meet on a case-by-case basis to decide how to shift internal investments.

"We won't have money in our reserve to continue every research program," Duncan said. "We have to weigh the really important programs with priority."

He cited MU's predominant position worldwide in technologies such as corn seed innovation and radioisotopes for medicine as programs "critical to society, that we can't let languish."

### **Student aid programs**

Each year, universities in the UM System receive a pool of money for financial aid from the federal government, said Nick Prewett, MU director of student financial aid.

These "campus-based" funds are gleaned from the FAFSA results, which measure the student population's financial need, he said.

Sequestration will slash "campus-based" funds, including Work-Study and Federal Supplemental Educational Opportunity Grants, by 8.2 percent, according to the White House Office of Management and Budget.

Because aid is already awarded for the educational year 2012-2013, sequestration won't impact student-aid programs until the year 2013-2014, Mary Jo Banken, executive director of the MU News Bureau, said in an email.

If sequestration occurs, 51,577 fewer college students will receive federal Work Study funding across the country, according to a [report by Sen. Tom Harkin](#), D-Iowa, chairman of the Senate Appropriations Subcommittee on Labor, Health and Human Services, and Education, and Related Agencies.

Nationwide, 110,543 fewer college students would receive SEOG funds, the report says.

For Missouri, that means 1,166 fewer students would receive federal work study and 1,997 fewer students would receive SEOG financial aid based on fiscal year 2012 levels, according to the subcommittee's report.

MU already has more students eligible for financial aid awards than funding available for the awards, Prewett said.

"Funding allocation varies from year to year," he said. "This gives us upfront notice that we're receiving a cut next year."

Ann Korschgen, vice provost for enrollment management at MU, said she doesn't anticipate a drop in student enrollment due to sequestration and the accompanying cuts in financial aid.

### **Hoping for an agreement**

Congress passed sequestration as a provision in the Budget Control Act of 2011. When Congress raised the federal debt ceiling in August 2011, a joint committee was formed to agree on a plan to reduce the deficit by at least \$1.2 trillion between 2012 and 2021.

In its September report, the White House characterizes sequestration as "a blunt and indiscriminate instrument ... not the responsible way for our nation to achieve deficit reduction."

Earlier this year, the bipartisan joint committee missed its deadline for drafting a deficit-reduction package. Now, Congress and the White House have until the end of the year to reach an agreement and avoid the fiscal cliff.

Duncan said he's optimistic for an agreement. He's collaborated with fellow research officers to lobby for a budget resolution.

"We're doing everything we can as an industry," he said. "If we circle the wagons and speak with a single voice, we have a lot greater impact. What impact that will have on our lawmakers and president — when it comes to making decisions — that's what we will find out in the next month."

In July, UM System President Tim Wolfe and all four chancellors signed a letter, addressed to President Barack Obama and Congress, with nearly 150 other university presidents and chancellors. It encouraged bipartisan, comprehensive budget reform to avoid sequestration.

At a conference in Orlando last week, Prewett said Department of Education representatives said they didn't expect sequestration to go through.

"They haven't prepared," Prewett said. "They haven't updated their software or dealt with the logistics, if that tells you anything."

*Supervising editor is Elizabeth Brixey.*



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## Jefferson's tombstone to leave MU for restoration

**COLUMBIA -- The original tombstone of former President Thomas Jefferson has been stored for nearly 130 years at the University of Missouri-Columbia. Now the marble slab will be removed for about a year to be restored by a laboratory that serves the Smithsonian Institution.**

Jefferson's tombstone originally was at his Virginia home of Monticello, but it was shipped to Missouri after being damaged by souvenir seekers and replaced with a larger replica. The tombstone was dedicated in 1885 at the University of Missouri, which was the first public university in the Louisiana Purchase Territory.

The restoration project will be led by Carol Grissom of the Museum Conservation Institute. Grissom says the top one-eighth of an inch on Jefferson's tombstone plaque is separating in places, and the corners also seem to be disintegrating.



## MU's Jefferson epitaph stone to be restored

By Janese Silvey

Tuesday, December 4, 2012

**A marble slab that bears the epitaph Thomas Jefferson wanted on his tombstone is being shipped from the University of Missouri campus to the Smithsonian Institute, where conservators will spend at least a year restoring it.**

The original gravestone of Thomas Jefferson sits on the east side of the MU's Francis Quadrangle. A plaque that originally was attached to the stone will be sent to the Smithsonian Institute for restoration.

The slate was originally affixed to the original Jefferson grave marker, a granite obelisk that sits on MU's Francis Quadrangle after being given to the university by Jefferson's family in the 19th century. Because of concerns about weather and vandalism, the marble piece has been in storage for more than 100 years, first housed at Academic Hall, then salvaged after that building burned in 1892. It's been stored in Jesse Hall since 1895.

Kee Groshong said he had wanted to do something with the historical marker when he was vice chancellor for administrative services, a post he retired from in 2002, but was unable to make it a priority. When, in 2009, MU alumnus Tom Schultz raised money to restore and relocate another historic marker, a cornerstone from Academic Hall, "it jogged my memory about the Jefferson epitaph stone," Groshong said.

After discussions about it with MU administrators, Alex Barker, director of the MU Museum of Art and Archaeology, got in touch with those at the Smithsonian.

Carol Grissom, a senior objects conservator at the Museum Conservation Institute, a research lab that serves the Smithsonian, visited MU this fall to examine the piece and ultimately decided to take on the restoration project.

"It's irresistible," Grissom said in a statement. "Thomas Jefferson himself wrote what he wanted written on the stone."

Jefferson's inscription, found by relatives in his notes after he died, identifies him as the "author of the Declaration of American Independence" and as the "father of the University of Virginia."

"Scholars find it interesting that he left out the fact he was president, among other accomplishments," Grissom said.

MU is getting a proposal on how much it will cost to transport the stone to Washington, D.C., where the Smithsonian will restore it without charge. Once there, Grissom and her team will remove the marble slate from a wooden box it's been sitting in since the 1890s and analyze it to determine why the slab is deteriorating, examining samples using a scanning electron microscope and other analyses.

John Murray, the assistant director of business services who manages Jesse Hall, then envisions architectural students designing a case to put the piece on public display.

MU has had Jefferson's grave marker since the 1880s when the Jefferson family agreed to move it from Monticello, where it had been damaged by souvenir seekers and vandals. Right now, the front of the obelisk is facing the chancellor's residence with the back toward the Quad. Groshong said he would like to see the monument turned around and also is interested in seeing whether a more durable replica of the marble epitaph could be affixed to the tomb.

"It would be quite a thing to have on campus back in its original state," he said.

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## MU begins holiday season with chancellor's holiday open house

The holiday season began at MU on Monday afternoon with the annual holiday open house at the Residence on Francis Quadrangle.

The open house featured several elaborate holiday decorations, including five Christmas trees. School of Music students performed holiday songs, and MU event staff members were on hand to greet guests and answer questions about the historic residence.

Chancellor Brady Deaton and his wife, Anne Deaton, hosted the event and have been doing so since 2005.

Brady Deaton said there are numerous reasons why he and Anne began hosting the holiday open house.

“It gives (students and faculty) a chance for us to be able to express to them the joy of the holidays,” Deaton said. “It also gives us a chance to meet them and for them to see the house — it is a beautiful home decorated for the holidays.”

The residence was built in 1867 and most recently renovated in 2005. The main floor of the house was kept in the Italian villa style in which the original residence was designed, Deaton said. The residence took about two days to fully decorate.

Deaton said he think the residence is a place not only every MU student, but also every Missourian should visit.

“Every citizen of Missouri should see what their forefathers have contributed to the university,” Deaton said. “When we open up the house this way to the community at large, it is a way of saying ‘season’s greetings’ to the whole state.”

MU holiday traditions will continue Tuesday with the Hanging of the Greens, sponsored by the Student Unions Programming Board.

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## MU's newest claim to fame: its own insect species

Homecoming. Truman. Tiger Stripe ice cream. Now there's yet another MU claim to fame: its own insect species.

*Aphis mizzou* is a close relative of *Aphis hyperici*, which was already known to be at MU. Ben Puttler — assistant professor emeritus of plant sciences at the College of Agriculture, Food and Natural Resources — discovered *Aphis mizzou* while studying parasitic wasps on *Aphis hyperici*.

“There was an innate feeling that I had found something different,” Puttler said.

Small black specks dotted the inside of a small vial in his office. Puttler held out the vial, which contained samples of *Aphis mizzou*.

“They're very small,” Puttler said. “You really have to look.”

Puttler first found what would later be known as *Aphis mizzou* in 2005. He sent samples to Doris Lagos, a Ph.D. candidate in the entomology department at the University of Illinois, to see if it was a new species.

“It's very similar to another species in Missouri,” Lagos said of *Aphis mizzou*. “(Puttler) said he saw some biological differences. I decided to pursue (the research) and do more molecular work.”

What Lagos found was a new species.

*Aphis mizzou* is accepted as a new species because of differences in antennae and the abdomen, as well as having a white wax coating, according to the academic paper published by Puttler, Lagos, David Voegtlin and Rosanna Giordano.

Because it was discovered at MU, Puttler said he decided there wasn't a much better name than MU itself.

“Insects are either named after the plant it's found on, the city it's found in or a Latin name describing it,” Puttler said. “There's no other aphid named after Mizzou. It seemed to make sense.”

It is completely possible for *Aphis mizzou* to be found in other places besides MU, Lagos said.

“Species of the genus *Aphis* undergoes rapid radiation and adapt well,” Lagos said. “It's possible that they are in other areas – we just haven't identified them yet.”

Puttler said he doesn't doubt *Aphis mizzou* could be found other places.

“Sometimes you have to be in the right place at the right time,” Puttler said. “But it’s just a matter of looking.”

More than 4,000 species of aphids have been described, 250 of which are pests of crops and ornamental plants, according to an Encyclopedia Britannica article. They are sap-sucking, soft-bodied insects, whose primary functions are to eat and excrete honeydew.

Puttler said as far as he knows, *Aphis mizzou* is harmless.

“For now,” Puttler said, chuckling. “You never know.”