Communication and Use of STAR METRICS Data

J. T. English

Communications Working Group
An Example: University of Missouri (MU)

- Located in Columbia, MO
- One of four campuses of the University of Missouri system (UM)
- Missouri’s Land-grant Institution
- Comprehensive Academic programs
- The main research campus within the UM system
University Missions

- Teaching
- Research
- Service
- Economic Development
Communication with Legislators and Staff

Those involved with communications at MU

• Director, Government Relations

• Vice-Chancellor of Research

• Director, Institutional Research

• Others
Typical Practices and Challenges for Communication

• MU representatives meet with legislators and staff on both regular and as-needed basis

• Conversations are brief and focus on specific topics

• Challenge to effectively present information succinctly – “no time for seminars”
Summary Information Available for MU Communications

- Office of Research Annual Report
- Impact Data Sheets
- Advancing Missouri Data
- Infographics
- STAR METRICS
Now More Than Ever, University Scientists and Scholars Deserve Our Support

BY ROBERT V. DUNCAN
Vice Chancellor for Research

During the previous fiscal year, agencies of the United States government awarded MU faculty scientists and scholars close to $70 million for sponsored research and instruction and public service projects.

These dollars, the life’s blood of MU’s research enterprise, were generated mostly through competitive submission processes involving researchers from many of the nation’s top institutions. Only the most important projects from the best investigators eventually gain support.

That MU has been so consistently well represented among projects selected for sponsorship is a testament to the energy, ambition and excellence of our faculty. Thanks in large part to their efforts, the University has not just enhanced its position as one of the nation’s premier centers of research and higher learning, but has also emerged as a major force in Missouri’s economic development.

In recent years, for example, companies licensing MU-generated intellectual property have tallied over $1 billion in sales.

The still precarious state of our nation’s economic recovery — as well as unceasing competitive pressures from across the globe — make it imperative that we continue to support the economy-enhancing work of our scientists and scholars.

Instead, just the opposite is happening. Draconian cuts in federal discretionary spending, the result of the so-called sequester, threaten to severely weaken the ability of universities like MU to continue the scientific research and development activity that our nation so desperately needs. This is a profound threat to both the nation’s long-term growth prospects and to the financial well-being of thousands of Missourians.

According to data compiled by Science Works For U.S., a project of the Association of American Universities, the Association of Public and Land-grant Universities, and The Science Coalition, sequestration will reduce federal funding for scientific research by nearly $55 billion over the next nine years, which will result in a reduction of U.S. GDP by at least $200 billion. The net impact could be 280,000 fewer jobs — many of them in important, well-paying high-tech fields — for each year between 2013 and 2016.

Here at MU, in the current year alone close to $17 million in previously awarded federal funds are in peril, about 10 percent of the university’s federal funding for research. Such cuts are of particular concern given the importance of several of MU’s newly funded investigations, many of which, ironically, have the potential to save the federal treasury millions. Among the most noteworthy:

• A four-year, $14.8 million grant from the U.S. Department of Health and Human Services’ Centers for Medicare and Medicaid Services to the Sinclair School of Nursing and Curators’ Professor of Nursing Marilyn Ranzi. Ranzi and her team of MU researchers will use the funds to discover ways of reducing avoidable “re-hospitalizations” among nursing home residents. Unnecessary hospital admissions not only imperil the well-being of patients, but are a significant driver in pushing up national health care costs.
• A $3 million grant from the USDA to Jerri Taylor, the Wieland Chair in Animal Genomics at MU, to determine what specific genes play a role in breeding problems and other issues in the cattle industry — a project that could significantly increase the efficiency of cattle reproduction.
• A $2.4 million grant from the Substance Abuse and Mental Health Services Administration to establish a Terrorism and Disaster Center that will train mental health providers to aid communities before and after natural and man-made disasters.

Last summer, MU Chancellor Brady Deaton was signatory, along with the leaders of every major research university in the nation, to a letter to Congress that neatly summed up the reasons why the sequestration cuts should be reversed. “Americans have not invested in education and scientific research pay long-term dividends,” the letter read.

“Federal support for scientific research and student financial aid laid the foundation for the dramatic expansion of the 20th century U.S. economy and can do the same in the 21st. These investments produce the people and the ideas that lead to new products, new businesses, and entire new industries, as well as the jobs that go with them.”

“As national leaders in higher education, we urge you to show America and the world that our country’s political system is capable of solving serious problems. The choices will not be easy, but throughout our nation’s history, American leaders have overcome great challenges with difficult decisions and sensible compromises. Please do so again and do so now.”

I am confident all of our faculty scientists and scholars would endorse this view, as would, I hope, every Missourians who cares about the continued vitality of research and scholarship. Let’s make sure our federal representatives hear it from all of us. More than ever, MU scientists and scholars deserve our support.
Impact on U.S. Congressional District 4

The District at a Glance
- UM Students: 8,821
- UM Alumni: 32,939
- UM Employees: 19,380
- Population: 748,616
- UM Salary & Retirement Income: $873,396,619
- UM State Tax Revenue: $31,838,477
- UM Federal Tax Revenue: $142,614,258

UM Students from the District in 2012
- 8,821 students
  - 7,092 - MU
  - 1,081 - UMKC
  - 598 - Missouri S&T
  - 50 - UMSL
  - 4,694 - Undergraduates
  - 4,127 - Graduates
  - 6,665 - Full-time students
  - 2,156 - Part-time students

UM Alumni Residing in the District in 2012
- 32,939 alumni
  - 27,716 - MU
  - 3,354 - UMKC
  - 1,272 - Missouri S&T
  - 603 - UMSL
  - 11,722 Selected School Alumni
  - 867 - Medicine
  - 1,474 - Nursing
  - 1,072 - Health Professions
  - 311 - Dentistry
  - 288 - Pharmacy
  - 53 - Optometry
  - 319 - Veterinary Medicine
  - 3,345 - Agriculture
  - 2,736 - Engineering
  - 1,257 - Law

UM Employees and Retirees Residing in the District in 2012
- 19,380 people employed by UM
  - 14,011 - MU
  - 1,377 - UMKC
  - 120 - Missouri S&T
  - 25 - UMSL
  - 4,650 - UM Health Care
  - 437 - UM System
- 3,703 UM Retirees and Beneficiaries

UM Services Received in the District in 2012
- 113,568 patients seen at UM Health Care, with $29,894,576 of uncompensated care.
- 11 patients seen at the UMSL Center for Eye Care with an average of $95 per patient in uncompensated care.
- 1,374 patients seen at the UMKC School of Dentistry with an average of $36 per patient in uncompensated care.
- 362,130 contacts with MU Extension through MU Extension events held in district counties.

UM Construction Projects Involving Vendors located in the District in 2012
- 66 vendors involved with 129 projects, for $26.5 million.

Select UM Properties in the District
Bradford Farm, Ellis Fischel Cancer Research Center, Foremost Dairy, Foremost Dairy - Kirby Tract (Leased), Green Meadows, Holstein Dairy, Horticulture and Agroforestry Research Center, KOMU TV, Lemone Industrial Complex, Middlebush Farm, MU Campus, Rocheford Turkey Farm, Schnebel Forest, Sinclair Farm, South Farm, Thompson Center for Autism, University Hospital, Women's and Children's Hospital
Impact on U.S. Congressional District 4

UM Research Expenditures Funded by Federal and Private Sources

Electronic Services to the State in 2012

- The Missouri Research & Education Network (MOREnet) provided Internet connectivity and technical services to members that include:
  - 61 higher education institutions with more than 308,000 students.
  - 500 K-12 schools with 868,000 students and 76,000 faculty.
  - 134 public libraries connecting 345 library buildings that serve 3.4 million Missourians.
  - MOREnet returned $13.5 million in telecommunications expenditures to companies doing business in Missouri.

Economic Development Highlights

- With $3.2 billion in total revenues, UM would have been the 17th largest publicly held Missouri-headquartered company in the state in 2012.
- With more than 31,000 employees in the state, UM was Missouri’s 2nd largest employer in 2011.
- In 2010, UM’s $169 million in federal science and engineering research expenditures represented 9.9% of these expenditures at Missouri public universities.
- In 2012, UM’s $22.3 million in National Science Foundation (NSF) awards represented 80% of all NSF awards made to Missouri public universities.
- UM earned $14.8 million in licensing income in 2012.
- UM received 136 new invention disclosures in 2012.
- 8 startups were created around UM technologies in 2012.
- UM was issued 34 U.S. patents and filed 69 new U.S. patent applications in 2012.

Financial Aid Provided to UM Students in 2012

- $871.2 million
  - $432.1 million - MU
  - $202.2 million - UMKC
  - $97.5 million - Missouri S&T
  - $139.4 million - UMSL

Impact on Education in 2011

- UM enrolled 50% of first-time undergraduates attending four-year public institutions in 2011.
- UM awarded 45% of the 1,130 doctoral degrees earned in Missouri.
- UM awarded 42% of the 1,937 first professional degrees earned in Missouri.
- UM awarded 54% of the 28,798 bachelor’s or higher degrees awarded by Missouri’s four-year public institutions.

Supporting the University of Missouri is an investment in the future of Missouri.

The university advances Missouri citizens and communities through its mission of teaching, research, public service, and economic development across our four campuses and University of Missouri Extension.

Prepared in December 2013, based on the best available data.

Data Sources include:
- Missouri Office of Administration
- UM IBF
- Office of Social and Economic Data Analysis (CSEDAS)
- Center for Applied Research and Environmental Systems (CARES)
- MCT
- Missouri S&T
- UMSL
- UM System
- UM Health Care
- MU Extension
- U.S. Census Bureau
- U.S. Dept of Health and Human Services
- National Science Foundation

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Share Your Story
St. Francois County

HIGHLIGHTS

193
Total UM Students

1,047
Total living UM Alumni

62
UM Alumni teaching K-12

22
People employed by UM

$709,123
Approx. tax revenue/income generated by UM employees/retirees

Related Stories

Have a story to share? Submit your story here.

View the full datasheet (PDF)

By the Numbers

View campus information: Columbia | Kansas City | Rolla | St. Louis
St. Francois County grad talks about Engineers Without Borders experience

Jake Midkiff of Farmington said the volunteer experience through Missouri University of Science and Technology showed him how engineering can help individuals and communities.

Students from Missouri S&T used their passion for engineering to show their compassion for residents in two tiny villages in Bolivia and Guatemala.

Two groups from S&T’s Engineers Without Borders (EWB) helped install a latrine system for the high school in Iinka Katurapu, Bolivia, and helped homeowners rebuild their two-room dwellings in Jerez, Guatemala.

“For me, EWB shows you how much you can do with an engineering background,” says Jake Midkiff, who studied geological engineering at S&T. “It’s very rewarding. When you go to wonderful places like Iinka Katurapu, it changes the way you look at things. The residents work so hard for what they have and it’s amazing how happy they are. It really puts life into perspective.”

READ MORE >>
Posted on Nov 01, 2010.
MU is accessible, affordable and accountable to citizens.  
Here are examples of our progress.

MU IS A NATIONALLY COMPETITIVE, GLOBAL UNIVERSITY.

MU is a member of the Association of American Universities (AAU) based on quality of teaching, research and scholarship.

- 60 Association of American Universities
- 227 Other doctoral/research universities
- 850 Specialized, religious, technical
- 1,536 4-year colleges
- 1,920 Community colleges

MU CONDUCTS MILLIONS OF DOLLARS IN FEDERAL RESEARCH.

Research & Development Expenditures, FY2012: $114.3 million

More information about the Association of American Universities: aaau.edu

Research at Mizzou: research.missouri.edu

Generous supporters worldwide invest in Mizzou. Private gifts enrich programs and facilities, support faculty and make an MU education more accessible.

IN FY2012, ALUMNI AND FRIENDS MADE 58,790 GIFTS TO MU TOTALING $88 MILLION.

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SINCE 2007, MIZZOU ALUMNI ASSOCIATION MEMBERSHIP HAS GROWN BY 24.6 PERCENT, PROVIDING MORE FINANCIAL SUPPORT FOR SCHOLARSHIPS, FACULTY GRANTS AND ALUMNI PROGRAMS.

Give to Mizzou: giving.missouri.edu

Join the Mizzou Alumni Association: mizzou.com
Federal Funding for Science and Jobs
STAR METRICS Report
for
Star State University
2011_Q3
STAR METRICS Data of Interest
2011_Q3 RESULTS for
Star State University

Number of federal science awards:
2,944

Total number of distinct
individuals supported on payroll
through science awards:
9,267

Number of FTEs supported on
payroll at through science awards:
3,676

Number of vendor, sub-award, and
institutional support jobs
supported through science
awards:
1,129

Average number of counties in
Pennsylvania where jobs are
directly traceable to science
spending:
28
Number of jobs created by science funding
By congressional district
Data Utility

• STAR METRICS data can complement/enhance other impact information
  ➢ Statistics
  ➢ Stories

• Presentation format of STAR METRICS data will be important with focus on simplicity

• STAR METRICS data can assist with discussion of specific issues – e.g. workforce development; benchmarks
Mizzou educates the workforce.

2,896
ROUNGLY 1 IN 3 DEGREES AWARDED ARE IN MATH, ENGINEERING, TECHNOLOGY AND OTHER SCIENCE FIELDS.

8,047
DEGREES GRANTED, 2011–12

Mizzou grants 23% of master’s degrees, 36% of first-professional degrees and 65% of doctoral degrees from Missouri public universities.

First-professional degrees are in law, medicine and veterinary medicine.

MU awards more degrees each year.

Mizzou’s licensing income from the commercialization of new technologies has reached more than $39 million since FY2008, a 93 percent increase compared to fiscal years 2003-07. 18 startup companies have licensed MU technology in the last five years.

SINCE FY2008, MU HAS FILED
365 U.S. PATENTS
AND SIGNED
227 OPTIONS & LICENSES
FOR NEW TECHNOLOGIES DEVELOPED AT THE UNIVERSITY.

Every week, the economy benefits as Mizzou raises an average of $1.6 million in private donations and attracts $2.8 million in federal funding.

During fiscal years 2010–12, MU Extension’s Business Development Program alone generated $2.5 billion in economic impact for Missouri’s economy, helping clients increase sales by $986 million and create 25,235 jobs.

MU is proud of the faculty, students and staff who are responsible for these achievements.