



MU News Bureau

Daily Clips Packet

May 9, 2017

MISSOURIAN

Results of 2016 survey show MU faculty concerns

THOMAS OIDE, 11 hrs ago

COLUMBIA — If given the chance, slightly more than half, 56 percent, of MU faculty — tenured, tenure-track and non-tenure track — said that they would choose to work at MU again.

That is one finding of a report from the Collaborative on Academic Careers in Higher Education, which surveyed faculty in February 2016. A report on the results, released Monday by the MU Office of the Provost, also showed that faculty saw:

- Transparency and interaction between leadership and faculty as an ongoing challenge.
- Compensation as not keeping up with peer institutions nor equitable across departments and gender, ethnic and racial lines.
- Problems with workplace climate; facilities; inequity regarding women and faculty of color; and the role of non-tenure track faculty.

"The issues that are identified in the survey are important," MU Faculty Council chair Ben Trachtenberg said. "Diversity and inclusion, compensation — those are issues that we've been talking about for a while now."

The results of the 2015-2016 COACHE survey were turned over to MU in August 2016, and a committee was formed to review them. The report and recommendations were written by the COACHE committee and delivered to Provost Garnett Stokes in March.

Trachtenberg, who was council chair when MU faculty members took the survey about 15 months ago, said the campus was under "a tremendous amount of stress." Hank Foley and Mike Middleton had only a few months earlier been named to lead MU and the University of Missouri System, respectively, as

interims after fall protests at MU forced the resignations of UM System President Tim Wolfe and MU Chancellor R. Bowen Loftin. Former assistant professor of communication Melissa Click, who called for "some muscle" to bar a student photographer from taking pictures of protestors, was being fired. There was a negative perception of MU throughout the state and nation, Trachtenberg said.

"While faculty were happy with their teaching and research, other aspects of the faculty experience were much less pleasant," he said.

The main change from February 2016 to now is that publicity swirling around MU has calmed, Trachtenberg said. He said that when faculty took the survey, many were still in "crisis mode."

"We're dealing with significant problems, but there isn't the perception (now) that everything is in tremendous flux," Trachtenberg said.

MU spokesman Christian Basi also said the COACHE survey captured a snapshot of faculty sentiment just months after one of the most challenging times in MU's history.

"As one would expect, the survey results reflect some of the turmoil of the time," Basi said in an email. "However, some themes persist across surveys in recent years, including issues regarding compensation and ensuring Mizzou is welcoming to all faculty, regardless of discipline, gender and background. These are areas that we are addressing as an institution and will continue to address."

The COACHE survey is a Harvard-based consortium that aims to improve faculty recruitment, diversity and retention, according to its website. It administers a survey every three years. The last time MU participated in one of COACHE's surveys was in 2012-2013. The 2015-2016 survey was the third time MU had participated.

Schools that have used COACHE reports include the other three schools in the UM System — University of Missouri-Kansas City, the University of Missouri-St. Louis and Missouri University of Science and Technology in Rolla — as well as Auburn University, Vanderbilt University and the universities of Alabama, Arkansas, Kentucky and South Carolina, according to the COACHE website.

Fifty-four percent of MU faculty responded to the survey, according to the report. In 2012, MU faculty's response rate was 51 percent, according to the 2012 report.

In the 2015-2016 survey, MU faculty listed quality of colleges, support of colleges, opportunities to collaborate and cost of living as some of the best aspects of MU, according to a presentation about the results. In the same presentation, MU faculty said support for research, compensation, diversity, leadership quality and facility quality as some of MU's worst aspects. Interdisciplinary work and facility quality are two of the strengths and weaknesses that carried over from the 2012-2013 report.

Questions about satisfaction with MU also revealed disenchantment:

- 24 percent of tenured faculty said they were dissatisfied or very dissatisfied with MU as a place of work, up from 17 percent in the 2012-2013 survey.
- 17 percent of pre-tenure faculty said they were dissatisfied or very dissatisfied with MU as a place of work, up from 13 percent in 2012-2013.
- 15 percent of non-tenure track faculty said they were dissatisfied or very dissatisfied with MU as a place of work, up from 13 percent in 2012-2013.

When faculty were asked if they agreed with the statement that they would choose MU again, the results again revealed negative feelings about MU:

- 33 percent of tenured faculty said they disagreed or strongly disagreed with the statement, up from 20 percent in the 2012-2013 survey.
- 25 percent of pre-tenure faculty said they disagreed or strongly disagreed with the statement, up from 17 percent in 2012-2013.
- 23 percent of non-tenure track faculty said they disagreed or strongly disagreed with the statement, up from 15 percent in 2012-2013.

Displeasure with senior leadership was especially apparent in the findings. On the five-point scale, satisfaction with senior leadership dropped by more than a half of a point from the 2012-2013 results. That represented the largest drop among all of the benchmarks. Other significant benchmarks were research, teaching, health and retirement benefits, and divisional and departmental leadership.

Trachtenberg said that if the survey is conducted again, it would be a better reflection on how faculty feel the future UM chancellor and UM System President Mun Choi, who took office in March, are performing.

The report included several unattributed quotes from survey responses. On senior leadership, one person said: "There seems to be a tendency to increase the number of administrative positions to the detriment of academic positions."

The committee said MU also needs senior leadership that understands governance and recognizes the issues of compensation and salary equity. Shared governance could lead to more satisfaction with senior leadership, the report said.

Improving compensation was a key concern. Asked if they could negotiate any part of their employment, 49 percent of faculty members responded their base salary — it was the top response. Asked what their primary reason would be if they left MU, 20 percent of faculty members responded "to improve salary/benefits" — also the top response. Only 4 percent of faculty who participated said compensation was one of the best aspects of MU.

The COACHE committee report and recommendations pointed especially to salary compression as one of the problems. As one unattributed responder said: "Continuing to only reward the 'superstars' and to focus on attracting new hires will continue to negatively impact the already low morale of faculty."

The report also cited salary equity across departments, divisions, rank, gender, race and ethnicity as a problem.

Faculty who responded to the survey took issue with treatment of faculty from underrepresented groups on campus. There were several instances of women and faculty of color who faced discrimination in their divisions and departments, the COACHE report noted.

"When they are threatened by successful programs or women, one can anticipate career sabotage," one unattributed responder said.

"We (minority faculty) are never asked to contribute in any administrative capacity to improve leadership," another responder said.

Trachtenberg's term as Faculty Council chair will expire in July, and William Wiebold, a professor in the Division of Plant Sciences, will take over as chair. He and Anna Ball, faculty fellow for faculty development in the Office of the Provost, will oversee the implementation of COACHE recommendations, according to an email from MU Interim Chancellor Garnett Stokes. Trachtenberg said he hopes that Wiebold's appointment will lead to changes. But he also hopes that the incoming chancellor takes the findings seriously as well.

"We're going to have a new chancellor named fairly soon, and that person will take office over the summer," Trachtenberg said. "These findings should be of great interest to the new chancellor and should help us plan how we will respond."



(AAU Science News Website)

[Tool detects melanoma cells that don't look 'regular'](#)

Posted by [Jeff Sossamon-U. Missouri](#) May 8th, 2017

Generated from News Bureau press release: [Fighting Cancer: New Microscopic Technique Could Help Detect, Diagnose Metastatic Melanomas](#)

A new tool detects and analyzes single melanoma cells that are more representative of the skin cancers developed by most patients.

For years, melanoma researchers have studied samples that were considered uniform in size and color, making them easier to examine by more conventional means. But melanomas don't always come in the same shape and hue; often, melanomas are irregular and dark, making them difficult to investigate.

The new work, recently reported in *Analyst*, outlines the new techniques that could lead to better and faster diagnoses for the life-threatening disease.

“Researchers often seek out the types of cancerous cells that are homogenous in nature and are easier to observe with traditional microscopic devices,” says Luis Polo-Parada, an associate professor of medical pharmacology and physiology and an investigator at the University of Missouri’s Dalton Cardiovascular Research Center. “Yet, because the vast amount of research is conducted on one type of cell, it often can lead to misdiagnosis in a clinical setting.”

The team decided to supplement an emerging technique called photoacoustic (PA) spectroscopy, a specialized optical technique that probes tissues and cells non-invasively. Current systems use the formation of sound waves followed by the absorption of light, which means that the tissues must adequately absorb the laser light. This is why, up until now, researchers have focused only on strong-light-absorb cells melanoma cells, Polo-Parada says.

The team modified a microscope that was able to merge light sources at a range conducive to observing the details of single melanoma cells. Using the modified system, human melanoma and breast cancers as well as mouse melanoma cells were diagnosed with greater ease and efficiency. The team also noted that as the cancer cells divided, they grew paler in color but the system was able to detect the newer, smaller cells as well.

“Overall, our studies show that by using modified techniques we will be able to observe non-uniform cancer cells, regardless of their origin,” Polo-Parada says. “Additionally, as these melanoma cells divide and distribute themselves throughout the blood, they can cause melanomas to metastasize. We were able to observe those cancers as well.

“This method could help medical doctors and pathologists to detect cancers as they spread, becoming one of the tools in the fight against this fatal disease.”

Coauthors are from the University of Missouri and the University of Guanajuato in Mexico.



MU researcher highlights levels of BPA found in common items, and what amplifies absorption

POSTED 10:48 PM, MAY 8, 2017, BY [LOREN HALIFAX](#)

Generated from News Bureau press release: [New Desktop Reference Guide Highlights Adverse Health Effects of Chemicals for Physicians and Their Patients](#)

KANSAS CITY, Mo. -- Studies show that adults are exposed to the chemical Bisphenol A, called BPA, in thermal receipts and that using hand sanitizer increases absorption rates.

FOX 4's Loren Halifax went to University of Missouri in Columbia to interview Dr. Fred vom Saal, PhD, about the research and his new book, "Integrative Environmental Medicine."

Dr. vom Saal says that research studies around the globe show we are all exposed to many chemicals every day in our environment. Out of about 87,000 chemicals in the environment, the U.S. government regulates about 1,000 of those. BPA is one of the chemicals now regulated by the Food and Drug Administration, but the regulations primarily focus on products for babies and children.

BPA is still regularly used in the linings of food packaging, like cans, and on the surface of thermal receipts. The coating of BPA on thermal receipts is an invisible powder that reacts to form the ink.

His research showed that adults absorbed that BPA from receipts directly into the bloodstream through their skin after handling thermal receipts and that women absorbed more than men due to thinner skin. His research also found that blood levels of BPA spiked after the people in the study used hand sanitizer, because the ingredients disrupt the skin's natural barriers and increase absorption. He says printed with regular ink are safer, but the ink still contains some BPA.

Dr. vom Saal says to find ways most convenient to you to handle thermal receipts as little as possible. You can fold the receipt with the surface to the inside and put it away, or take a photo with a cell phone and discard the receipt or ask for email receipts when possible. He says never hold receipts in your mouth while putting away your change and keys, and use soap and water for hand cleaning instead of hand sanitizer.

He also recommends doing these things to decrease your overall exposure to environmental toxins and pollutants:

--Filter your air using quality HEPA air filters when possible.

--Filter your drinking water. He recommends charcoal filtration systems on your faucet or under your sink as a highly effective and low cost approach. Charcoal filtration combined with reverse osmosis is the most effective, but also the most expensive.

--Avoid eating processed foods, especially from cans that use BPA in the lining.

--Avoid pesticides by eating organic food when possible. Use the Clean 15 and Dirty Dozen lists on the ewg.org website to prioritize and save money when you buy.

--Use other guides on ewg.org to find safer products for skin, hair, baby and home in order to decrease your exposure to combined classes of chemicals.

MU to honor ‘mother’ of the Katy Trail at commencement

Generated from News Bureau press release: [Nearly 5,500 Graduates to Receive Degrees from Mizzou](#)

Between Friday and Sunday, 5,484 students will earn degrees from the University of Missouri, the school said in a news release. Each MU school and college holds its own separate ceremony.

The university also will honor conservationist and “mother” of the Katy Trail, Pat Jones, with an honorary degree. Jones, an MU alumna, will speak during honor’s convocation at 8:30 a.m. Saturday in the Mizzou Arena.

Other speakers for MU commencement ceremonies this weekend include former interim UM System President Mike Middleton at the College of Arts and Science ceremony and Judge Patricia Breckenridge, chief justice of the Missouri Supreme Court, at the School of Law ceremony.

MU will award 6,088 degrees, including 4,450 bachelor’s degrees, 967 master’s degrees, 338 doctorates, 99 law degrees, 112 veterinary medicine degrees, 100 medicine degrees and 22 education specialist degrees, according to the news release, with some students receiving more than one degree. More than 500 students will graduate from MU’s online program, Mizzou Online, MU said. For more information on the various commencement ceremonies to go commencement.missouri.edu.



[Police utilize training at MU Research Reactor emergency training](#)

by Mark Slavit

Watch the story: <http://mms.tveyes.com/PlaybackPortal.aspx?SavedEditID=33eb1a13-95f1-4092-ab2d-755092e05efd>

COLUMBIA — People who drove by Mizzou's nuclear research reactor on Monday morning had no cause for concerns when they saw emergency response teams.

Boone County area emergency teams and University of Missouri officials held an emergency simulation at the MU Research Reactor on Providence Road south of the football stadium.

The drill's scenario involved a man with a head injury and radiation burns.

The simulated accident happened in a laboratory building that stood separated from the nuclear reactor.

"It gives us the opportunity to respond. It gives us the opportunity to utilize the training we received," University of Missouri Police Department Lieutenant Buddy Anliker said. "We can better understand what are role is going to be in a scenario like this."

MU Research Reactor administrators must conduct an emergency preparedness drill with outside support groups every two years.

"The safety of our facilities at the University is our utmost concern. Not only do we do this drill every two years, but we also do an additional drill every year," MU spokeswoman Liz McCune said. "This is the biggest one that we do that involves all of our first responders."

The Columbia Fire Department, Joint Communications, MURR staff, MUPD, University Hospital and Clinics and the MU News Bureau worked the simulation scene.

MISSOURIAN

Students worry about possible tuition hike, low enrollment figures

DAPHNE PSALEDAKIS, 12 hrs ago

COLUMBIA — Sam Mosher had a goal when he came to MU — to avoid taking out student loans.

Then he heard that his Bright Flight scholarship, awarded to students by the Missouri Department of Higher Education based on SAT and ACT scores, had been cut by several hundred dollars. With a possible rise in tuition, Mosher, 19, potentially sees student loans in his future.

"The whole goal of all the hard work put into scholarships was to not have student loans," Mosher, a freshman, said. "That'll probably be the outcome of all this."

In interviews, students expressed worry over possible tuition hikes, and others said they were concerned about the impact decreased enrollment has had on campus.

MU might raise tuition by about \$200 for resident students and \$500 for out-of-state students due to state budget cuts, according to previous Missourian reporting. The UM System Board of Curators is slated to vote on tuition increases this month.

MU projected that about 4,000 first-time college students will enroll in August, a 15 percent drop from last year, according to previous Missourian reporting.

The university is taking steps to prepare for the drop in enrollment by [closing seven dorms](#) for the 2017-2018 school year.

The number of freshman who have paid fall enrollment fees for 2017 is 4,009, compared to 4,738 at this time last year for fall 2016, according to previous Missourian reporting.

Officials have attributed the drop to several causes, including the Concerned Student 1950 protests in the fall of 2015, which generated national news coverage and led to the resignations of then-UM System President Tim Wolfe and then-MU Chancellor R. Bowen Loftin.

Danielle Austin, a senior graduating next week, said she's already noticed a difference on campus from the lower enrollment this year. Even though she won't be at MU next year, she said the drop was predictable.

"I feel like the morale is impacted," Austin, 22, said. "Just knowing that not as many people want to come to Mizzou or that not as many people are excited to be on campus, it's kind of changing the morale."

Other students also weren't surprised by the announcement that enrollment numbers had dropped but were concerned about how it might affect their school bills.

Morgan Bogue, a junior, is especially worried about the rise in tuition, which she pays for herself.

"I only have a year left, so I probably have to suck it up and pay it, but I'll probably have to work more hours to afford what my loans aren't covering," Bogue, 21, said.

When she was looking at colleges, she likely would have chosen a cheaper school if she'd known tuition might rise, she said.

For residents, [undergraduate tuition at MU for the 2016-2017 school year](#) was estimated to be \$10,716. Non-resident undergraduate tuition was estimated to be \$25,998.

The tuition costs at other public universities that are also members of the [Association of American Universities](#) varied.

The [University of Iowa expected that tuition and fees](#) this school year would be \$8,800 for undergraduate resident students and \$29,038 for non-resident undergraduate students, according to the university's Office of Student Financial Aid.

The [University of Kansas tuition and fees](#) for 30 academic credit hours this school year was expected to be less expensive than MU, at \$9,975 for resident undergraduate students and \$25,896 for non-resident undergraduate students, according to the financial aid website.

[And Texas A&M University expected](#) that residents would pay tuition and fees of \$10,030 this school year and that undergraduate non-resident students would pay \$30,208, according to their financial aid website.

But tuition and fees aren't the only area where costs might increase at MU.

Juliette Baker, a sophomore member of Alpha Delta Pi, was also worried about how her sorority would be affected.

The Alpha Delta Pi house holds about 100 members and has a policy that requires the rooms to be filled or paid for by other members if they are not filled, Baker, 19, said. Last year's decreased enrollment led to fewer new members, and now some members will reside in the house for a second year instead of just one.

Although it is in the sorority's bylaws that members have to live in the house for four semesters, it hasn't been enforced because it hasn't been a problem until now, Alaina Weiss, Alpha Delta Pi president, said.

Usually, the members only live in the house for one year. Next year, sorority members can choose to live in the house for a second year or share the cost of the empty rooms with other members. The sorority has to fill the beds to help pay off the recent remodel of the house, Weiss said. If all the beds aren't filled, the sorority members will have to pay for the empty beds.

"My pledge class two years ago was 86 and the pledge class that we just got was 69," Baker said. "We have to have more of my pledge class live in another year to fill the house. Living in the house is more expensive than living in an apartment or a dorm."

Alpha Delta Pi also held spring recruitment this semester because of the lower number of initiates in this year's pledge class. The Panhellenic Association, which oversees sororities on campus, only gives

sororities permission to hold spring recruitment if their pledge class falls below a certain number. Alpha Delta Pi usually does not, but they did this year, Weiss said.

Beyond concern in Greek life, students were also worried about how dropping enrollment might affect the reputation of MU.

"I feel like it kind of puts a negative view on our university," said Makyna Six, 21, a senior at MU. "I don't think it's a good thing."

COLUMBIA DAILY TRIBUNE

Boone County dedicates millions to early childhood programs

By Brittany Ruess

More than \$3.5 million from the Boone County Children's Services fund will be dedicated to new early childhood programs targeting teachers, parents and others interacting with children before they reach kindergarten.

The Boone County Commission approved the spending, spread out over a three-year period, during a meeting last week. The nine-member Boone County Children's Services Board sought early childhood initiatives with a focus on improving the social and emotional well-being for the county's youngest children.

The University of Missouri Board of Curators, on behalf of MU's Department of Psychiatry, received nearly \$1.9 million to create the Boone County Early Childhood Coalition, which will use a popular program, known as Triple P, to help parents learn how to deal with their children's behavioral challenges. The program also includes a public awareness campaign to show parents, guardians and community members what they can do to improve early childhood outcomes, Community Services Director Kelly Wallis said.

Laine Young-Walker, an associate psychiatry professor at MU, said the coalition will use the evidence-based Triple P - Positive Parenting Program that has been the subject of 30 years worth of research. According to [the Triple P website](#), the program is a support system that is meant to prevent and treat behavioral and emotional problems in children.

The early childhood coalition will partner with physicians and parent educators who conduct home visits, such as those who work in the Parents as Teachers program, to train them in Triple P programming, Young-Walker said. The early childhood program also will reach out to the community to find more partners in early childhood to educate in Triple P.

Parents will be another focus of the coalition. Young-Walker said they are critical to developing their children's social and emotional well-being and while children are in child care for a portion of their day, most of their time is spent with parents who can help provide interventions if they know what to look for.

Children "spend the rest of their time with their parents and they model what they see and they model the interactions that they've had," she said. "They will repeat behaviors that are reinforced. If a parent isn't aware that they're reinforcing negative behaviors, it's repeated."

Developmentally, children go through stages, Young-Walker said. Once they accomplish a task, they move on to the next stage. Parents are sometimes unaware of their children's development and how to address challenges their children may be facing that prevents them from moving to the next stage, she said.

Improving a child's social and emotional well-being allows them to focus on learning and prepares them for kindergarten, Young-Walker said.

"If we have them be more successful in their environment today, they build on that success, their social-emotional development and well-being is on track and they're more likely to be successful in kindergarten," she said.

A public awareness campaign also will be launched using materials from Triple P that will be accessible to other early childhood programs in the community, Young-Walker said.

"We hope to reach a large number of people in the community by, No. 1, increasing their awareness about emotional-social well-being and behavioral issues in young children, and then providing tools for the providers to work with parents in addressing those things," she said.

Moberly Area Community College was awarded more than \$1.6 million for its quality child care initiative that will provide early childhood education and training for existing and up-and-coming teachers. The child care initiative will measure the effects that the teachers' education and training have on their students, Wallis said.

The initiative will provide 120 existing early childhood teachers with education and training to earn The Child Development Associate Credential, a nationally-recognized certification, said Tracy Huang, MACC early childhood program coordinator.

In the certification process, teachers will be trained to implement the HighScope Curriculum, which is focused on hands-on learning, in their classrooms. Huang said researchers who studied that curriculum found that children who went through the HighScope method in early childhood had lower rates of incarceration, higher graduation rates and higher income earning potential.

Teachers will go through MACC for the certification, which Huang said puts them on a track to an associate's degree program in early childhood education. They also will be eligible for grants for working early childhood teachers, she said.

“We’re hoping that this grant will address the needs of schools that serve families that are disadvantaged who don’t quite qualify for Head Start or cannot go to the more expensive” schools, Huang said.

In Columbia and Boone County, Huang said there is a gap for employment in early childhood centers. Teachers are usually hired, receive on-the-job training and then go back for higher education, she said.

Another component of the child care initiative will train 60 junior and senior high school students in early childhood education who will graduate with The Child Development Associate Credential. The education and training will make them eligible for the T.E.A.C.H. Early Childhood MISSOURI Scholarship, Huang said, which would cover portions of tuition and book costs, as well as a small amount of compensation.

T COLUMBIA DAILY **TRIBUNE**

Police use stun gun after MU student allegedly flees arrest

Police used a stun gun on a University of Missouri student Saturday morning after the man allegedly ran from an arresting officer, the MU Police Department said.

MUPD Maj. Brian Weimer said a single officer on patrol arrested John G. Meyers , 20, of Kansas City, shortly after midnight at 601 Rollins St. The patrolling officer said he saw a man he identified as Meyers urinating in public and got out of his vehicle to speak to him, Weimer said. When the officer tried to arrest Meyers, Meyers pulled away and tried to kick the police officer, Weimer said. Meyers began running from the officer, who used a stun gun on Meyers before arresting him, Weimer said.

A second officer came to the scene to assist after Meyers, Weimer said. Meyers was examined by medics and taken to Boone County Jail, Weimer said.

Meyers did not respond to a telephone message from the Tribune seeking comment. The University of Missouri's student directory lists him as a junior. Police arrested Meyers outside the Phi Kappa Theta Fraternity House, but it is unclear whether Meyers or his arrest was associated with the fraternity.

It was unclear if Meyers had a lawyer.

Police arrested Meyers on suspicion of fourth-degree assault of a special victim and resisting arrest. He posted a \$1,000 bond at about 5 a.m. Saturday morning.

ST. LOUIS POST-DISPATCH

[At a campus where men outnumber women 3 to 1, should Missouri S&T mind the gap?](#)

By Ashley Jost St. Louis Post-Dispatch, 20 hrs ago

NO MU MENTION

ROLLA • There are sayings around the Missouri University of Science and Technology campus and among alumni that poke fun at the school's gender gap.

Among the more appropriate sayings is, "The odds are good, but the goods are odd."

The 8,800-student campus is about 77 percent male and 23 percent female. While the number of women on campus has grown over the years, the percentage has stayed the same as the male population grows, too. The gender gap plagues most STEM-focused schools and industries.

Female graduates joke that the "Rolla Ratio" kept the men a little extra chivalrous. And they're glad people no longer find it appropriate to ask a female student if she's getting her "MRS." An alumnus quipped that maybe the lack of women allowed him to focus more and land the engineering job of his dreams right out of college.

The gender imbalance comes up in the admissions office, though mostly from parents. But students say it's an issue that they tend to forget about.

For every female student she passes on campus, senior Alyssa McCarthy passes about four men. She doesn't even notice it anymore, except when she leaves Rolla.

"It can be difficult, but I have never seen it as a huge problem we're trying to solve," she said. "We'd love more females, but at the same time if you look at the industry, we're doing pretty well."

McCarthy is an above-average student. She works in admissions, helps out in a campus center that houses 18 different design teams, has run an organization before and is involved in plenty of others.

Overachieving is typical among female students at Rolla.

"The female students very often are in the top of their class, they're leaders of the student organizations and they're extraordinarily impressive during career fairs," said S&T Chancellor Cheryl Schrader, the university's first female leader.

She guesses that there are no "average" women at S&T because "they've had to work harder to succeed and be accepted" in many cases, and those who weren't as passionate about pursuing the type of training in science, technology, engineering and math (known as STEM) that S&T provides might have found their way in another discipline.

It's unfortunate, and something that Schrader and other higher education and industry leaders are trying to address.

In fact, Schrader jokes that the university will not reach gender parity until there are "average women" on campus. It sounds odd at first, but Schrader said it was something science and engineering industries thought about, too.

Overachievers are needed in the workforce, but so are the more typical graduates.

Prepared for industry

Under Schrader's five-year tenure as S&T's top administrator, the number of female leaders on campus has tripled. She points to a push on her part to increase diversity in general, be it gender or race.

In a going-away celebration, historian and professor Larry Gragg told a crowd of students and employees that Schrader shattered a glass ceiling and showed that women could rise to the top at the Rolla campus.

[Schrader is headed to Wright State University](#) in Ohio, where she'll be the first female campus leader there, too. Meanwhile, Missouri officials have named Christopher Maples, former president of the Oregon Institute of Technology, as interim chancellor for one year as they conduct a national search for Schrader's replacement.

Schrader preaches about the value of diverse leaders.

"When you don't see role models and other folks who are doing that, you don't realize that you can do it, too," she said.

That's what happened for Suzanna Long, who as an undergraduate had a female boss turned lifelong mentor who helped motivate her. Long got two bachelor's degrees, her master's and her doctorate from S&T in the 1980s. Then she came back to teach and now leads the department of engineering management and systems engineering. Also, her daughter is an S&T student.

"I always say, 'I went to Rolla, I can't be offended,'" she jokes. "I wasn't harassed at all, but there is a bluntness that comes with a STEM-dominated campus, and certainly that is true. Part of that includes self-assurance that I have my facts, I know what they are and I know that I'm qualified to be here. For me, gender just fell off of things I had to worry about."

Breaking stereotypes

In the early 1980s, Long was one of four female physics majors. Among her peers was Sandy Magnus, a physicist and astronaut who spent the better part of 2009 in space.

“I was an odd duck in an already odd group of people,” Magnus joked. “It freaked some guys out because I was a physics major, and I played soccer. I broke a lot of stereotypes.”

Now the executive director of the American Institute of Aeronautics and Astronautics, Magnus said the gender gap in her education, from undergraduate to doctorate, prepared her to work in a male-dominated career.

About 20 percent to 25 percent of all astronauts are women, yet they are only 10 percent of those who make it into space.

When Magnus visits middle and high schools to talk to students about pursuing STEM careers, she still hears from girls questioning what opportunities exist for them in male-dominated industries.

“We have a lot to do to mindfully and proactively encourage women to go into engineering and tech,” Magnus said.

S&T and other institutions have caught onto a messaging issue not just for women but for students of color, too. The school has stopped marketing engineering as one white male in a building by himself, Schrader pointed out. Engineering is about teamwork and oftentimes getting out into job sites.

“We are focusing on people and the results of the work that we do,” Schrader said.

And it’s working. The first nine students to pursue a new minor program in humanitarian engineering were all women.

WHY U San Francisco Is Changing Building's Name

NO MU MENTION

BY SCOTT JASCHIK MAY 9, 2017

The University of San Francisco will today formally change the name of a residence hall (at right) from Phelan Hall, honoring one alumnus, to Burl A. Toler Hall (another). As at other colleges and universities, some names designated many years ago trouble some on campus today. The Phelan name, designated in 1955, was to honor James D. Phelan, who was mayor of San Francisco from 1897 to 1902 and served as a U.S. senator from 1915 to 1921. The honor for him no longer seems appropriate today to many on campus, because he was known for his use of anti-immigrant rhetoric and was particularly known for encouraging anti-Japanese sentiment.

Toler, whose name will now be on the facility, would have been 89 today. When he was a student at the university, he was a football player, a rare African-American star on a predominantly white team in 1951. The team opted out of postseason bowl games rather than leave Toler and another player behind, as would have been required. Toler went on to become a teacher and the first black high school principal in San Francisco.

INSIDE HIGHER ED

The New Student ID

Despite questions about privacy, colleges using biometric authentication such as iris scans say they are mostly concerned with getting students into campus facilities as quickly as possible.

NO MU MENTION

BY CARL STRAUMSHEIM MAY 9, 2017

The student ID card isn't going away, but the technologies that colleges are using to supplement it are moving the institutions toward a future in which students are rarely required to pull out their cards.

Requiring students to take out their wallets, pull out an ID and wiggle it just right under a bar-code scanner is a recipe for congestion. Fingerprint or hand geometry reading are some popular alternatives, but the sensors don't always work on the first attempt, and some students may be squeamish about touching a surface that thousands of other people use -- especially before sitting down to eat.

So the issue remains: How do you get students into the dining hall, recreation center or other spaces on campus quickly while at the same time verifying their identity?

Some institutions, such as the University of Georgia, are pursuing a hands-free future. UGA has used some form of biometric authentication since the 1970s, and this summer will bring the latest development. When students return to campus this fall, they will have the option of enrolling in a system where they can use their irises to enter dining halls and the Ramsey Student Center, said William H. McGee, IT director of auxiliary services at UGA.

The news was first [reported](#) by *The Red & Black*, UGA's student newspaper.

Iris recognition is one of many technologies colleges are considering. Others include low-energy Bluetooth emitters, also known as "beacons," which can be used to identify students carrying a Bluetooth-enabled device such as a smartphone when they approach them. Near-field communication (NFC) -- which allows devices to connect wirelessly -- initially showed potential, but Apple continues to restrict access to the NFC chip in its iPhone, making it off-limits to developers.

It's not a coincidence that those technologies can also be found in smartphones, said Richard Wynn, director of Eagle Card services at Georgia Southern University, which has used iris cameras since 2013.

"If we go back a few years ago, biometrics weren't that well accepted," Wynn said in an interview. "Smartphones are helping with that."

In the span of a few years, fingerprinting has gone from being associated with criminal activity to the replacement for the "swipe to unlock" gesture, while iris cameras have become gradually more common. The development has also led to hardware improvements. As smartphone manufacturers have made fingerprint readers and iris cameras basic features of their devices, the demand has challenged companies to develop faster, more accurate sensors.

Bryan Varin, executive director of UGA Dining Services, said in an interview that educating students about the biometric systems has helped dispel myths about what they actually do. He said that, during his 10 years at the university, he has occasionally been approached by students with suspicions about hand geometry or iris recognition, confusing them with advanced fingerprinting and retinal-scan systems.

"These aren't scanners," Varin said about hand-geometry readers and iris cameras. "Both of them are simply taking a picture and ending up with a mathematical equation that grants you entry."

Like at UGA, Georgia Southern students initially expressed some concerns about "the whole Big Brother, 1984 thing," Wynn said. Iris recognition has since become the preferred way for students to access the dining halls.

Katie Miller, a marketing manager at Georgia Southern, suggested students have embraced iris recognition because today's 18- to 24-year-olds are such a "noncommunicative demographic" (in other words: "they're always on their phone"). With iris recognition, all that students need to do is lift their gaze from the screen for a second or two and peer into the camera -- no human interaction required, she said.

Story [continues.](#)

