



August 26, 2011  
Issue 3: 27

Women in Science and Engineering

[www.usc.edu/programs/wise](http://www.usc.edu/programs/wise)

## WELCOME BACK

The Women in Science and Engineering Program cordially welcomes all students and faculty back to campus. We wish you the best of luck as the semester gets underway!

## WiSE COMMITTEES

The 2011-2012 WiSE Advisory Board, USC Dornsife WiSE Committee and USC Viterbi School of Engineering WiSE Committee have been formed and can be viewed on our website at <http://www.usc.edu/programs/wise/about/>. Thank you to all faculty who have agreed to serve.

## WiSE ANNUAL REPORT

Each year, as part of its regular review of programs, WiSE produces an annual report that summarizes its activities during the prior academic year. These documents are an important means of tracking WiSE's contributions to the USC community and success in building a stronger environment for women. An abbreviated version of the 2010-2011 WiSE Annual report can be viewed online on the WiSE website at [http://www.usc.edu/programs/wise/news/annual\\_reports/](http://www.usc.edu/programs/wise/news/annual_reports/).

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### REMINDER

**WISE UNDERGRADUATE  
RESEARCH FELLOWSHIPS**

**APPLICATIONS:  
DORNSIFE COLLEGE  
DUE AUGUST 28**

To see all the USC WiSE Grant Programs, including ongoing grants without specific deadlines, please [click here](#).

[WISEPROG@USC.EDU](mailto:WISEPROG@USC.EDU)

### CONGRATULATIONS

Sarah Hester, Shira Epstein  
Meha Agrawal, Aye Thu  
Aditi Yokota-Joshi

**WINNERS OF THE FALL 2011 WISE  
UNDERGRADUATE RESEARCH  
FELLOWSHIPS IN THE VITERBI  
SCHOOL OF ENGINEERING!**

### WISE FACULTY NETWORKING MEETING

This month's meeting will be hosted by WiSE at the University Club on Thursday, September 29 at 12pm.

## CONFERENCES

E-CASE & E-TECH 2012 HONG KONG  
March 30 - April 1, 2012

Submissions Due: October 15

You are cordially invited to participate in the 2012 International Conference on e-Commerce, e-Administration, e-Society, e-Education, and e-Technology (e-CASE & e-Tech 2012) to be held in Hong Kong, March, 2012. The main objective of e-CASE & e-Tech 2012 is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in e-Commerce, e-Administration, e-Society, e-Education, and e-Technology. This conference provides opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

All submissions to the conference will be reviewed by at least two independent peers for technical merit and content. It is anticipated that a broad range of research.

For additional information, [click here](#).

UCLA CENTER FOR THE STUDY OF WOMEN announces:  
THINKING GENDER 2012  
22nd Annual Graduate Student Research Conference  
Call for papers

Thinking Gender is a public conference highlighting graduate student research on women, gender and/or sexuality across all disciplines and historical periods. We invite submissions for individual papers or pre-constituted panels on any topic pertaining to women, gender, and/or sexuality. This year, we especially welcome feminist research on: gender roles in relation to marriage, parenting, or being single; critiques of biosciences and biotechnology as they pertain to fertility, sanitation, and/or medical experimentation at a local, national or global level; mobility as duress or success—for example, in relation to migration, immigration, or upward or downward economic mobility; life stage issues, such as aging and girls' studies; and feminist storytelling or research in modes such as oral histories, graphic novels, theater, comedy or other inventive expressions.

CSW accepts submissions for both individual papers and pre-constituted panels from all active graduate students. In order to give everyone an opportunity to present, we do not accept submissions from people who presented at Thinking Gender in the previous year. Also no previously published material is eligible.

Students proposing individual papers are to submit an abstract (250 words), a CV (2 pages maximum), and a brief bibliography (3-5 sources), for consideration. For panels, a 250-word description of the panel topic is required, in addition to the materials that must be provided for individual paper submissions. For a more detailed description of submission guidelines, please visit: <http://www.csw.ucla.edu/conferences/thinking-gender/thinking-gender-2012>.

Send submissions to: [thinkinggender@women.ucla.edu](mailto:thinkinggender@women.ucla.edu)

Deadline for Submissions: Thursday, October 17th, 2011 at 12 noon  
Conference to be held on Friday, February 3, 2012, UCLA Faculty Center  
<http://www.csw.ucla.edu/>

## IN THE NEWS

### FIVE WOMEN HONORED FOR THEIR WORK IN MOLECULAR BIOLOGY

WIA Report

August 4, 2011

The American Society for Biochemistry and Molecular Biology has announced the winners of 12 awards. The winning scientists will receive their awards, which include a \$5,000 cash prize, at the society's annual meeting next April in San Diego.

Among this year's 12 winners are five women scientists.

For the complete article, [click here](#).

### IS THE GENDER GAP IN STEM FIELDS OVERSTATED?

WIA Report

August 4, 2011

Casey George-Jackson, an adjunct professor at the College of Education at the University of Illinois, suggests in a new study that the gender gap in STEM fields may be overstated due to a narrow definition of what constitutes STEM education.

Professor George-Jackson, who completed her Ph.D. at the University of Illinois in 2009, tracked more than 16,000 first-year students who matriculated in 1999 at five large land-grant universities. She tracked the students' progress, including participation in STEM degree programs over the next six years.

Her data showed that when the definition of STEM fields was restricted to the physical sciences, mathematics, computer science, and engineering, 42 percent of male students were STEM majors as were 11 percent of the women. However, when using a broader definition of STEM education, which includes majors in health sciences, biological sciences, and agricultural sciences, the percentage of women majoring in STEM fields jumped to 37 percent, compared to 54 percent for men.

For the complete article, [click here](#).

### SEX AND THE CITADEL OF SCIENCE

By Michelle Franc11

August 23, 2011

Nature Chemistry

One hundred years on from Marie Curie being awarded her second Nobel Prize there has been only a handful of female scientists who have received the call from Stockholm. Why are women still under-represented? A lack of ability or passion, or could it be that we create labs into which women don't quite fit?

I suspect it was a bacterium that turned me into a chemist. The summer between third and fourth grade I was sick, too ill to get out of bed for a month. Once I was well enough to be bored, my mother, desperate to keep her invalid child amused and lacking the modern-day sickroom essentials of DVD players and video games, brought me a new book to read. It worked. I was transfixed from the first page, whisked from Chicago's oppressive midsummer heat to the crisp late-autumn days of nineteenth-century Warsaw to walk along the banks of the Wisla with young Manya Sklodowska and her sister.

For the complete article, [click here](#).

## WOMEN CAN BENEFIT FROM EARNING A STEM BACHELOR'S DEGREE

By Catherine Groux

US News University Directory

August 15, 2011

A July report by the U.S. Commerce Department's Economics and Statistics Administration shows that students who earn degrees in science, technology, economics or mathematics (STEM) can see many benefits after graduation.

For example, the report shows employees who work in STEM-related positions tend to earn about 26% more than individuals who do not. An additional report by the administration indicates that this may be especially true for women in STEM positions, as they make about 33% more than females who are employed in other sectors.

Still, studies show that women can find many benefits in earning a STEM degree. Despite this large salary increase, the new report indicates that there are relatively few women in STEM positions. While about half of the total workforce is female, only about 24% of STEM jobs are held by women. This figure has remained consistent over the past 10 years.

For the original article, [click here](#).

## NEW COMMERCE DEPARTMENT REPORT FINDS GREATER WAGE PARITY, PREMIUM FOR WOMEN IN STEM JOBS

By Priya Lopes

August 8, 2011

Women still significantly underrepresented in STEM fields, impacting U.S. competitiveness

The U.S. Commerce Department's Economics and Statistics Administration (ESA) today issued the second in a series of reports on science, technology, engineering and mathematics (STEM) jobs and higher education.

As expected, the report, *Women in STEM: A Gender Gap to Innovation*, finds there are fewer women than men in STEM jobs and attaining degrees in STEM fields. But interestingly, that's true despite the fact that the wage premium for women in STEM jobs is higher than that for men and that there's greater income parity between genders in STEM fields than there is in the employment market as a whole.

While women make up 48 percent of the U.S. workforce, only 24 percent hold STEM jobs. Over the past decade, this underrepresentation has remained fairly constant, even as women's share of the college-educated workforce has increased.

Women with STEM jobs, however, earned 33 percent more than women in non-STEM jobs in 2009, exceeding the 25 percent earnings premium for men in STEM. Women in STEM also experience a smaller gender wage gap than their counterparts in other fields.

For the original article, [click here](#).

## SCIENTISTS: WE WANT MORE CHILDREN

By Tara Thean

TIME

August 9, 2011

We Ecocentric writers have the privilege of constant exposure to the most cutting-edge science research around – we’ve written about sexy birds, Arctic oil, paper solar panels, and countless other incarnations of the weird and wonderful. But sometimes it’s easy to overlook the hardworking folks behind these discoveries, and it looks like they’ve had to forget things too: their families. Almost half of all women scientists and a quarter of their male colleagues at the nation’s top research universities – Harvard, Princeton and Stanford among them – feel their careers have prevented them from having as many children as they had wanted, according to research by sociologists at Rice University and Southern Methodist University (SMU).

And the generation following them has noticed: the researchers found that a worrying one in four graduate students and one in five postdoctoral fellows is considering a career entirely outside science, largely because of these perceived limitations. But while this is troubling, it’s hardly surprising. A career in science means committing to the long hours and high stress that come with grant-writing, the pressure to publish, and colleagues who are all smarter than you, or at least scarily competitive. None of these things exactly screams “mom of the year.”

For the complete article, [click here](#).

## WOMEN SPARSE IN MATH, SCIENCE FIELDS: FEMALES AN UNTAPPED RESOURCE, U.S. REPORT SAYS

By Kelly Hogan

Journal Sentinel

August 15, 2011

A U.S. Commerce Department’s Economics and Statistics Administration report released this month revealed that women are underrepresented - and an untapped resource - in the science, technology, engineering and math workforce.

The report, based on the U.S. Census Bureau’s 2009 American Community Survey data, said boosting the number of women in the scientific workforce could boost U.S. competitiveness.

The Census Bureau’s annual nationwide survey is administered by the Economics and Statistics Administration, which provides demographic, social, economic and housing data for community economic development.

The report showed that women make up almost half the U.S. workforce but hold less than a quarter of what are called STEM jobs. This disparity, said the report, suggests that women are less likely to seek training leading to STEM degrees. When they do, their career paths often take a different turn - veering toward fields in education and health care.

Whereas 40% of college-educated men who have technical degrees opt to enter the STEM workforce, this is true for only 26% of their female counterparts.

For the complete article, [click here](#).

## LACK OF WOMEN IN IT JOBS STEMS FROM CHILDHOOD PERCEPTIONS

August 10, 2011

Women in Technology

The low numbers of women working in IT jobs could stem from early childhood perceptions. This observation, suggests that the IT industry must tackle gender stereotypes to encourage young women to pursue careers in these sectors.

Technology recruiter FDM Group is one of the organizations working to break the perceived stereotype that IT staff are geeky men. FDM Group is combating this by celebrating its own female role models and showing young women the possibilities of the careers they could have in the industry.

For the complete article, [click here](#).

## WOMEN VALUE HIGHER EDUCATION MORE HIGHLY THAN MEN DO, SURVEY FINDS

By Rachel Wiseman

August 17, 2011

Chronicle of Higher Education

At a time when women are consistently outperforming men in college enrollment and completion, women tend to value higher education more highly than men do and believe it has had a more positive impact on their lives, according to the results of a survey that was released on Wednesday.

The survey, of more than 2,100 Americans, was conducted by the Pew Research Center in March as part of a larger project on public attitudes toward higher education. (Earlier results were released in May.) Slightly more than a third of respondents to the survey held a bachelor's degree or higher.

A majority of respondents were not satisfied with the advantages higher education offers, in light of the hefty financial investment it requires. College-educated women, however, were more enthusiastic.

For the complete article, [click here](#).

## UCF ENGINEERING PROFESSOR PAVES WAY FOR WOMEN

By Carmen Carroquino

August 17, 2011

Seminole Voice

As a woman beginning her career in the early 1960s, Lucy Morse was just doing what interested her when she earned a bachelor's degree in mathematics in 1959. At that time, a lot of young women didn't even think about having a career, let alone one in the math and science field.

To her, math was easy. Her mother was a math teacher, and her father was an engineer. Math and science were in her blood.

Morse recently received the Bernard R. Sarchet Award in engineering management education from the American Society for Engineering Education in June, as a testament to her accomplishments in the normally male-dominated world of engineering.

For the complete article, [click here](#).

## WHEN LOOKING FOR LOVE, WOMEN SPURN SCIENCE

By Jennifer Welsh

August 19, 2011

LiveScience.com

Finding romantic love can be a distracting goal for anyone, but for women thoughts of romantic goals are particularly distracting from science, technology, engineering and math, new research suggests.

These typically masculine disciplines are thought of as particularly non-feminine, and women unconsciously dissociate themselves from STEM activities like college courses and majors when they need to be feminine, the researchers said.

“It says a lot about the influences of the environment that women grow up in. They are socialized and receive messages that being sexy and attractive is very important,” study researcher Lora Park, at the University of Buffalo, told LiveScience. “We find that exposure to these [romantic] cues, even if they are very subtle, can affect their decision to major in these fields.” [Top 5 Myths About Girls, Math and Science]

### Dating as a deterrent

The researchers found this in four separate experiments, which involved male and female participants who were about 19 years old on average. To prime participants to be in a “looking for love” or “study” mode, researchers had them rate how much they liked romance or intelligence-related images (sunset on a beach and a library, for instance); then participants filled out a questionnaire that included questions about their interest in STEM fields. After romantic prompting, female interest in such fields decreased more than 25 percent. Men didn’t show any differences in STEM interest.

For the complete article, [click here](#).

## THE CULTURE OF SOME COLLEGES MAY FOSTER GENDER SEGREGATION BY MAJOR, STUDY FINDS

By Peter Schmidt

August 22, 2011

Chronicle of Higher Education

Certain colleges may have cultures that nudge female students into stereotypically female fields and men into stereotypically male ones, suggests a study whose findings are slated to be presented here on Tuesday at the annual conference of the American Sociological Association.

Colleges that have relatively few women among their tenured faculty members and exceptionally small numbers of men among their undergraduates generally have higher levels of gender segregation by major than do other institutions, the study found. So do colleges with football teams in Division III of the National Collegiate Athletic Association, suggesting that those with athletic programs that emphasize male-dominated sports are less likely to encourage the gender integration of various academic fields, according to a paper summarizing the study’s results.

Colleges that promote study in the liberal arts, by contrast, tend to have more students go into fields traditionally associated with members of the opposite sex, the paper says.

For the complete article, [click here](#).

## PARITY IN STEM FACULTY

By Scott Jaschik

August 23, 2011

Inside Higher Ed

LAS VEGAS -- Numerous studies document the frustrations -- personal and professional -- of women who pursue science careers in higher education. Many of these women complain about unfair treatment, as well as frustrations that come with being in the minority (sometimes the extreme minority) in their departments.

The National Science Foundation is supporting a research project to focus more attention on STEM faculty at community colleges, where men and women are about 50-50 in faculty positions over all, and where women make up 47.7 percent of STEM faculty (compared to about one third at four-year institutions). Researchers who are part of a team at Ohio University studying the issue gave an overview of initial findings here at the annual meeting of the American Sociological Association.

Their major conclusions: Women in STEM faculty positions at community colleges are happy, and it's not because their jobs are somehow easier than those at four-year institutions (although they are different). The Ohio researchers are combining their national statistical analysis with in-depth interviews with small groups of women on STEM faculties at community colleges -- starting with 29 at institutions in Ohio, and then extending to other states. The analysis is complete in Ohio, and early results suggest similar findings coming from other states.

For the complete article [click here](#).

## JOB ANNOUNCEMENTS

### Research Specialist (postdoctoral-level position) in desert impacts of solar energy development

A position at the postdoctoral level is available in the Earth Research Institute and the Biogeography Lab ([www.biogeog.ucsb.edu](http://www.biogeog.ucsb.edu)) at the University of California, Santa Barbara. The successful candidate will participate in a multi-investigator interdisciplinary project to create a planning and decision support framework for assessing cumulative ecological impacts of new solar energy projects throughout the California Deserts. The position is full time and offers a competitive salary and benefits commensurate with experience. The initial appointment is for 12 months. Applicants must have a Ph.D. in ecology, geography, earth system science, or environmental sciences, with demonstrated experience in desert ecology, spatial ecological modeling, and proficiency with GIS skills. The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching, and service. Applications will be reviewed starting on April 1, 2011. The position will remain open until filled. Please send a cover letter describing your research interests and experience, curriculum vitae, and names of three references to: [recruit@eri.ucsb.edu](mailto:recruit@eri.ucsb.edu) please include code Solar Impacts in the subject line or email.

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Research Specialist (postdoctoral-level position) in microbial ecology/biogeochemistry

A position at the postdoctoral level is available in the Earth Research Institute and the Schimel Research Lab (<http://www.lifesci.ucsb.edu/eemb/faculty/schimel/>) at the University of California, Santa Barbara. The successful candidate will work on linking microbial dynamics and ecosystem processes. The primary project is evaluating how groups of microorganisms are active through litter decomposition and how they relate to “functional groups” of decomposers. The successful candidate may become involved in projects which include evaluating how microbial stress (wetting/drying; freeze/thaw) regulate community structure and function in California grasslands and arctic tundra (this will depend on the candidate’s expertise and interests).

We are seeking a candidate who is skilled in performing research at the interface of microbial and ecosystem ecology, and in playing a leading role in coordinating a research program, including undergraduate researchers and employees. The candidate should have research experience in using molecular tools for characterizing microbes and their activities, as well as expertise in analyzing soil processes.

The level of the appointment will be in the Specialist Series, which is a research position that carries with it the expectation that the candidate will bring to a project special skills, experience, and knowledge. The candidate will be responsible for carrying out his/her own research and coordinating critical team activities. He/she must be able to work independently in the field, including in potentially remote study areas.

Applicants should have a PhD in ecology, microbiology, chemistry, or a related field and demonstrated experience in microbial ecology.

The position is full time and offers a competitive salary and benefits commensurate with experience. The initial appointment is for one year beginning September 20, 2011, continuation beyond one year will be based on performance.

The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching, and service. Applications will be reviewed starting on September 12, 2011. The position will remain open until filled. Please send a cover letter describing your research interests and experience, curriculum vitae, names of three referees including names, email addresses, and telephone numbers, and representative publications to: [recruit@eri.ucsb.edu](mailto:recruit@eri.ucsb.edu), please include code Biogeochemistry in the subject line of the email.

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## Research Specialist (postdoctoral-level position) in Fluvial

### Geomorphology

A position as an Assistant Specialist III (recent PhD) is available in the Earth Research Institute at the University of California, Santa Barbara. A multidisciplinary team of scientists is seeking an energetic and highly motivated recent PhD in fluvial geomorphology to participate in an interdisciplinary study of river mechanics and habitat formation. The overarching question being addressed by this study is: How do abiotic and biotic processes in a restructured, simplified channel-floodplain system interact to develop the conditions that favor a set of native and endangered species of plants and animals? The particular duties of the position will focus on the responses of channel physical processes and anadromous salmon habitat to channel engineering. However, the incumbent will also participate with other recent PhDs, graduate students, and faculty members in studies of riparian and floodplain vegetation dynamics, benthic macroinvertebrates, and non-salmonid fishes in the restored reach. The position is available immediately and will extend for 12 months.

The study is based at the University of California, Santa Barbara, and is funded by the Delta Science Program of the California Delta Stewardship Council. The research is being conducted on the 2.5-km Robinson reach of the Merced River that has been restructured into a single-thread, meandering channel. The reconstructed channel and regulated river provide an exceptional opportunity for experiments to test effects of varying river flow and substrate characteristics and to monitor the evolution of channel and floodplain habitats.

The geomorphological part of the integrated study addresses the question: How do flow and sediment transport processes alter bed conditions and morphology of the restructured channel to create the habitat occupied by fish and invertebrates? The candidate will need extensive experience in conducting instrumental river studies under sometimes-arduous conditions as well as in the digital processing of spatial data and modeling of flow and sediment transport with the U.S. Geological Survey's FaSTMECH software. The candidate will also be expected to assist other project members in the design, conduct, and analysis of collaborative experiments.

Candidates must have a PhD in fluvial geomorphology, hydraulic engineering, or related field, and a record of publication in major journals. The Specialist series is a research position that carries with it the expectation that the candidate will bring to a project special skills, experience, and knowledge. The candidate will be responsible for carrying out his/her own research and coordinating critical team activities. He/she must be able to work independently in the field. The position is full time and offers a salary of \$44,400 per year and full benefits. The appointment is for one year beginning September 20, 2011.

The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through research, teaching, and service. Applications will be reviewed starting on September 12, 2011. The position will remain open until filled. Please send a cover letter describing your research interests and experience, curriculum vitae, names of three referees including names, email addresses, and telephone numbers, and representative publications to: [recruit@eri.ucsb.edu](mailto:recruit@eri.ucsb.edu), please include code Geomorphology in the subject line of the email.

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"Playful" Family Science at the Studio  
Thursdays (6:00pm – 8:00pm)  
August 25, September 1, September 8

Over the course of 3 weeks, you'll use the engineering process to design, build, and re-design some playful inventions! We'll begin the series by creating Rube Goldberg machines as well as learning about electrical circuits with some help from squishy circuits. Join us at the Iridescent Science Studio on Thursday nights from 6pm to 8pm, beginning on August 25th. Come to all 3 sessions, as each one builds upon the previous session: August 28th, September 1st, and September 8th! (Cost: \$5.00/family)

Due to the scale of our playful inventions, space is limited! [Register Here.](#)

For information on additional Iridescent programs, [click here.](#)