



July 26, 2011
Issue 2: 25

Women in Science and Engineering

www.usc.edu/programs/wise

Reminder

Deadlines for
WiSE Undergraduate Research Grants
are approaching!

Applications Due:
Viterbi: AUGUST 1
Dornsife: AUGUST 28

Up to fifteen Undergraduate Research Fellowships are granted each year in both USC Dornsife and in the Viterbi School of Engineering to support summer and academic year research (Five awards each in the fall, spring and summer terms). The goal is to familiarize students with laboratory research and link them with a mentor early on. It is hoped that through the experience of first-hand research at the undergraduate level, the chances will increase that students will choose to pursue a graduate degree in science or engineering.

For more information visit,

http://www.usc.edu/programs/wise/programs/undergrad_research/

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

WISEPROG@USC.EDU

WISE UPCOMING DEADLINES



Fall Undergraduate Research Awards

Dornsife: August 28
Viterbi: August 1

WISE FACULTY NETWORKING MEETING

Meetings held the last Thursday of the month at 12pm in HNB 107; Thursday, July 28, 2011; Bring your own lunch. Cookies, coffee, tea provided.

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](#).

AWIS

The Mission of the Los Angeles and Ventura County Chapter of AWIS is to foster the personal and professional skills of women so they can become leaders in their field, support women at all stages of their career through career development workshops, networking opportunities, social gatherings, and specific mentoring programs, promote a collegial environment where women from different disciplines and employment sectors, feel confident to share their experience, advice, and expertise for the benefit of all members.

SUMMER PLANNING RETREAT, AUGUST 4, 6 PM

What: Join us in planning our 2011-2012 calendar of events

When: 6pm Social Potluck, 6:30pm Planning Meeting

Where: Van Nuys Sherman Oaks Park 14201 Huston St, Sherman Oaks, CA 91423.

Who: All are welcome!

RSVP: <http://tinyurl.com/AWISsummerRetreat2011>

All ideas from speed networking to career development panels to outreach in the community are encouraged!

Please bring a dish to share.

Questions? Email Tracy at president@awislavc.org.

HAPPY HOUR, WEDNESDAY, AUGUST 17, 6-9 PM

Save the date for Happy Hour at The Arsenal in West LA.

WOMEN ENGINEERS SEEK TO BUILD BRIGHTER FUTURE

July 20, 2011

ABC News

A conference is considering how to boost support for women in scientific and engineering careers.

Hundreds of women are taking part in the International Conference of Women Engineers and Scientists, in Adelaide.

UniSA Engineering and Education Professor Julie Mills says industries must do more to ensure women are not penalised for returning to work part-time after having children.

“It does need leadership from people who are the managing directors to kind of demonstrate themselves that people who use family-friendly practices aren’t penalised for it,” she said.

The national chair of Women in Engineering, Michelle Shi-Verdaasdonk, says women make up 10 per cent of the industry, so attraction and retention are key issues for discussion.

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

Suit Seeks Redress for a Start-Up Package Gone Sour

Kelly Suter was nervous about trying to launch her lab with the \$230,000 start-up package that accompanied the offer of a tenure-track position in the biology department at the University of Texas at San Antonio (UTSA). She would be bringing nearly \$1 million in grants from the U.S. National Institutes of Health (NIH) with her from the University of Louisville, Kentucky, proof that she was good. But her work, investigating neurons whose oscillations underlie the release of a hormone that governs sexual reproduction, was expensive.

Still, the electrophysiologist was impressed by UTSA’s goal of becoming a top-tier research institution and its promise to give rising stars like Suter, then 41, the resources they would need to be successful. Before making a final decision, Suter managed to bump up her start-up package by negotiating for another \$100,000 from a pot of state money for computational biology. Then, satisfied that she had done the best she could, she accepted the job in June 2006, packed up, and headed west, primed to take the next step in her academic career.

Within weeks of her arrival, however, she found herself instead hurtling down an academic rabbit hole, as her start-up funds were diverted and her research plans



Moving up. Kelly Suter accepting a young investigator award from the American Physiological Society.

delayed. Last summer, after exhausting other options, Suter hit bottom: She sued the university and six UTSA administrators and professors. She claims in her suit that the university failed to honor its commitment to support her research in a timely fashion and that two other male faculty members who arrived after her received money earmarked for her start-up package. She says that the university’s actions pushed her small lab—Suter and two technicians—to the brink of

collapse and that when she pushed back by filing a complaint about pay discrimination based on her gender, she was made an outcast in a male-dominated environment.

Suter isn’t asking for any money. Instead, she wants the university to apologize for its actions. She says her experience is a cautionary tale for other young academic scientists: “The last 5 years of my life have been a nightmare. And I will not in any way give the impression that this is acceptable.”

For its part, the university denies that it has done anything wrong and, therefore, says that no apology is needed. While it acknowledges the bare facts in the case, the university disputes Suter’s claims that it misled her or acted improperly. Both sides are awaiting a ruling by a federal district judge in San Antonio on whether the suit can proceed to trial.

Remarkably, for all the bad blood between her and her employer, Suter’s scientific career is moving forward. After an initial setback, she won a grant renewal worth \$1 million and, simultaneously, a new \$1.2 million grant to study the action of gonadotropin-releasing hormone on neurons during puberty. Last year, she received a prestigious award for young investigators from the American Physiological Society. And last fall, when she came

CREDIT: COURTESY OF THE PHYSIOLOGIST (AUGUST 2010) © THE AMERICAN PHYSIOLOGICAL SOCIETY

up for tenure, she breezed through the process despite reservations from her department chair.

“Kelly is great,” says Charles Wilson, a UTSA professor of neurobiology who served on the original search committee and is not a defendant in the suit. “She’s what I want our faculty to be, scientifically. I’m trying to build a successful neuroscience program, and she’s as solid as they come.” Suter, who says she came to UTSA in part because she knew and admired Wilson’s work, was one of seven faculty members hired by the department within 3 years. And Wilson says that, from his perspective, “I think the university has done a great job of supporting all of them.”



“I think they assumed that women don’t complain. But as a computational biologist with a degree in chemistry, I learned you don’t survive if you don’t take care of yourself.”

—KELLY SUTER, UTSA

Sitting and waiting

How did Suter’s dream of working in a supportive, collegial atmosphere at a rapidly growing neuroscience program go so bad, so quickly? At the heart of the dispute is UTSA’s promise, in a 30 May 2006 letter, to provide \$200,000 for lab equipment and a further \$30,000 for supplies. Almost half the money would be coming from the faculty development component of a grant from an NIH program, Research Centers in Minority Institutions (RCMI), which targets universities serving a large minority population. The provost’s office would provide most of the rest, with the remainder coming from her department.

The offer letter stated that the equipment money must be spent by July 2007. That date corresponds to the end of the fiscal year for the RCMI grant, explained George Perry, dean of the college of arts and sciences, during his deposition.

The first glitch came within a few weeks of Suter’s arrival, when Matthew Gdovin, the interim program director, told her that the RCMI funds actually had to be spent by 31 July 2006, not 2007. Given such an impossibly tight schedule, Gdovin said the university would ask NIH for permission to carry forward the money into the 2006–07 cycle.

But that wasn’t the end of the matter. In his deposition, Gdovin said that he proposed putting the next \$100,000 allocation from the RCMI grant into a “shell account” for Fidel Santamaria, a new faculty member who was arriving in January 2007. Gdovin explained in his deposition that he “had an understanding” that Suter would get money

from the biology department and that “I would reimburse” the department with the RCMI funds that had been carried forward. And when Todd Troyer was hired in July 2007, UTSA officials tapped the portion of the 2007–08 RCMI grant designated for faculty development to help Troyer set up his lab. In the university’s response to the suit, it acknowledged that the offers to Santamaria and Troyer didn’t specify the source of their start-up funds but denied that the rest of the events occurred.

Suter says she was “devastated, both personally and professionally,” by the delay in getting what she had been promised. She did receive \$100,000 in institutional funds shortly after arriving at UTSA to set up the “wet” side of her research lab. But it was more than 2 years later, in September 2008, that she got the additional \$100,000 in “carry forward” funds from the RCMI grant that she had expected during her first year. “My basic recording setup costs \$197,000. So 100K doesn’t go far when one is starting with an empty room,” she says. “I’d been submitting equipment orders for months, and then I found out they hadn’t been processed because the money wasn’t there.”

The \$100,000 from the state grant for computational biology, which Suter had negotiated before joining UTSA, arrived in June 2007, triggering a frenzy of lab activity. But her late start contributed to her receiving a very poor score on the first attempt to renew her NIH grant, she says. Reviewers “praised the idea but said the fatal flaw was a lack of timely publications,” she says.

Suter kept plugging away, however, and eventually hit pay dirt. “I got the good news [about both grants] on the same day, January 26, 2009, and it was an incredible relief. We came within 3 months of closing,” she says. “There’s no bridge money [institutional funds used to support researchers between grants] at UTSA. I had also avoided bringing in a graduate student because my money was so unstable.”

J. Aaron Cassill, chair of the biology department when Suter was hired and a defendant in the suit, said in his deposition that the uncertainty shouldn’t have come as a surprise. The funding “was not a 100% guarantee; ... there had been a history of problems” with allocating the start-up packages of previous hires, he said he told her during her job interview,

according to his deposition. Those problems stemmed largely from delays in opening buildings that would house the labs of new faculty members. But space allocation is no longer a problem, he added.

Suter says she never would have come to UTSA had she known what lay in store. But Wilson thinks that Suter simply needs “to get over it. Most people have gotten mad at their universities at some point and then moved on,” he says. Researchers and universities “put too much emphasis” on start-up packages anyway, he says, to the point that a large one may even be detrimental to a young researcher. “When I was hired in 2000, my start-up was \$10,000,” he says. “And when I told my chair that it wasn’t enough, he said, ‘Instead of complaining to me, you should be writing grant [applications].’”

Suter says she talked with her new department chair about her situation in May 2007. But it went badly. “He wanted to know if we could start over,” she says. “So I asked for three things: a written apology, full disclosure to NIH about how the RCMI funding has been managed, and help in digging me out of this hole. He said, ‘That’s not going to happen.’”

The impasse, she said, prompted her decision to speak out—both as an early-career scientist and as a woman. “These are very proud men,” she says of the defendants. “I think they assumed that women don’t complain. But as a computational biologist with a degree in chemistry, I learned you don’t survive if you don’t take care of yourself.”

—JEFFREY MERVIS

BRINGING GIRLS INTO THE SCIENCE-MAJOR PIPELINE

By Nancy Linde

The Chronicle of Higher Education

July 13, 2011

Take a look at the poster advertising a summer camp (below left). It was designed by the computer department of an American university. (I'm hiding the name to protect the innocent.) Do you think this poster communicates how much fun the camp will be? Does it convey the excitement of creating animated movies, designing virtual worlds? Look at the main message at the top. Do you think that kids in middle school are that worried about preparing for the future? Especially during summer vacation? Will the poster grab the attention of its intended audience, or even their parents?

The answer to all of those questions? “Unlikely.” Yet posters like this are created every day at colleges across the country. The programs, classes, or special lectures they announce are often fascinating, but who would know that? Summer outreach programs, like the tech camp in the poster, usually involve months of hard work to organize. Yet the same level of detail is not reflected in the marketing. Can you imagine Apple introducing a new iPad, or Nike launching a new shoe design, with an ad like this? Apple and Nike know that to get people excited about a product or program, they must first understand how to capture the target audience’s attention and pique its curiosity.



That need is acute in science-pipeline recruitment at the K-12 and college levels. In particular, the often-misunderstood field of computer science is a good example of a group in need of a good public-relations campaign. For at least a couple of decades, colleges have made significant efforts to increase the number of students majoring in computer science and to broaden participation in the field by attracting more women and minorities. Yet compared with a decade ago, enrollments in computer science have dropped more than 40 percent. And far fewer women than men pursue computer-science degrees.

That is not simply disappointing. It has serious implications for U.S. national and economic security. While the impact on America’s computer industry may be obvious, the dearth of computer professionals has alarming consequences for all fields of science, technology, and industry that rely on computer technologies—and name one that doesn’t.

But what does a poster have to do with all this? A lot, actually. Image is important. As long as teenagers believe that computer science is boring, difficult, and antisocial, they won’t choose it as a career. But existing stereotypes can be challenged by changing the emphasis—by introducing computer professionals as the lively, interesting people that most of them are, by demonstrating that computer science is an exciting field that has a major impact on just about every aspect of human life, and by communicating all of that to young people using language and images that resonate with them.

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

GIRLS, THEIR FAMILIES AND FRIENDS, GATHER FOR COMPUTER SCIENCE

By Joe Lang

July 15, 2011

Pacific University Oregon

Families, friends and area teachers gathered at Pacific University's Multipurpose Room on Friday, July 15 to support and congratulate 30 local seventh and eighth-grade girls, who completed an innovative four-week computer science camp by presenting their "capstone" projects.

Girls Gather for Computer Science (G2CS), a National Science Foundation-funded camp in partnership with Oregon Public Broadcasting, concluded with campers demonstrating what they learned over 20 days of instruction, field trips and hands-on learning.

As was the case throughout the four-week period, OPB cameras were on hand to capture the scene, which included project demonstrations and the presentation of camp completion certificates.

The camp, a joint effort of the University's Computer Science and Physics departments and the Berglund Center for Internet Studies, introduced the attendees to the world of computer science.

The girls took part in software development, digital media design and biotechnology through classroom instruction and lab exercises, as well as a number of field trips to places like Intel, OMSI and the Hatfield Marine Science Center on the Oregon Coast. Instructors consisted of female computer scientists, engineers, professors and area middle school teachers.

"By offering girls an engaging, challenging, and exciting environment, away from their typical preoccupations, and by utilizing professional female computer scientists as leaders and instructors, G2CS frees young women to explore and see themselves as scientists, engineers and mathematicians," camp director and associate professor Shereen Khoja said.



Demand for computer science abilities, she said, is expected to continue its rapid increase over the next two decades. Employees in the STEM disciplines - science, technology, engineering and mathematics - are predominantly men, a trend the camp seeks to address by encouraging girls and women to pursue a STEM career because of the expected shortage of STEM-skilled workers in the coming years.

During the camp, the girls built Lego Mindstorm Robots, programmed animations and games using Alice, created simple web pages and took apart and rebuilt old computers. They also recorded their own experiences by using Flip video cameras and writing blog posts each day.

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

GOOGLE ANNOUNCES GLOBAL SCIENCE FAIR WINNERS

by Wendy Kaufman

July 12, 2011

NPR

(Transcript)

STEVE INSKEEP, host:

Some other news. Google has announced the winners of its first global science fair. As NPR's Wendy Kaufman reports, it was a clean sweep for young women.

WENDY KAUFMAN: Seventeen-year-old Shree Bose of Fort Worth, Texas took home the grand prize for her work on drug resistance in treating ovarian cancer. To say she was surprised would be an understatement.

Ms. SHREE BOSE: I was, I mean to be presenting in front of Nobel Laureates and to be judged by them and then to be picked as a science fair winner by them, that just doesn't happen every day.

(Soundbite of laughter)

KAUFMAN: Bose' first foray into science fair competition occurred when she was in second grade. She tried to find out if kids would eat more spinach if it were blue instead of green, but she neglected to water her plants. Today, her research is a lot more sophisticated, involving cancer cells and proteins. She won a \$50,000 scholarship, along with a 10-day expedition to the Galapagos for her efforts.

Ms. BOSE: Throughout my entire life I've always loved science. I've loved watching it, doing it, understanding it mostly, and now to be able to explain science to other people, that's the biggest step for me as a scientist.

KAUFMAN: Some 10,000 students entered the competition and in the end three women, including Bose were declared the winners in their age brackets. One of the others looked at how different marinades could reduce carcinogens in grilled chicken, while the third winner examined the effect of air pollution on asthma.

World class science and technology companies are always on the lookout for talent and they hope competitions like this encourage more young people to study science and engineering.

Wendy Kaufman, NPR News.

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

GIRLS AND THE FUTURE OF SCIENCE

By Meg Urry

July 19, 2011

The Huffington Post

Top prizes at the Google Science Fair were awarded this week for work on improving ovarian cancer treatment, the relation of indoor air quality to asthma, and how to reduce carcinogen levels in barbecued chicken. But as a science professor at a leading university, I have my own prize to bestow on this contest: best gender ratio in the sciences.

All three grand prize winners in this competition for would-be scientists ages 13-17 were girls.

In a country where men greatly outnumber women in the sciences -- in my field, physics, women hold only 12% of faculty positions nationwide -- this is encouraging news indeed.

Plenty of girls have the talent and interest to do science, including physics. Last year at Yale, we had more women physics majors than men and the fraction of women physics majors is consistently above 20%, the national average.

So what is holding women back?

People still speculate that girls are less able than boys at math and science -- remember the famous remarks by Larry Summers, then president of Harvard, in 2005? But huge variation in the fraction of physicists who are women, nation by nation, argues that cultural or social influences are a much stronger factor.

Some argue that girls lack interest and/or preparation in mathematics starting at a young age but now girls and boys reach the same levels in advanced math in high school and the (small) gender gap has narrowed. Moreover, Japanese women scored better than U.S. men on a measure of math ability, yet no one is suggesting Japanese women make much better scientists than U.S. men. Indeed, a 2007 report from the National Research Council concluded there is no measured difference in ability that could possibly account for the large difference from 50:50 gender balance in science.

For the full story, [click here](#).

WOMEN IN SCIENCE: SEX AND MATHEMATICS – UNLIKELY BEDFELLOWS IN HIV RESEARCH

By Charlotte Watts

July 26, 2011

The Independent

Women in science: Sex and mathematics unlikely bedfellows in HIV research. Armed only with a global map of the HIV epidemic, last Friday I spent a fascinating hour standing on a soap box, talking to passers by about my HIV research. Avoiding equations and jargon, we discussed ways to overcome the HIV epidemic, and the rewards of a science career. A steady stream of people stopped to learn more about HIV/AIDS globally, and discuss potential solutions. Topics ranged from the reasons behind the variation in levels of infection between countries, why circumcision helps protect men from HIV, and whether condoms really work!

These discussions were timely. Last week, at the International AIDS Conference in Rome, exciting new research showed that by putting people onto HIV treatment early, they are far less likely to pass infection onto others. Other research showed that versions of the anti-retroviral drugs used commonly for treatment also protects people from HIV infection in the first place. As globally there are still 7,000 new HIV infections occurring daily, these new developments are extremely important.

In Rome there was a definite wave of optimism, with recognition that our arsenal for prevention had been substantially bolstered. But were the glasses of rosé quaffed in late night celebrations justified? These drugs are currently far more expensive than condoms and male circumcision – the pillars of current prevention. In today's financially constrained world can countries afford to give drugs to healthy people just in case they may, possibly, be at risk of HIV?

I shared these new findings with passers-by on the South Bank, and asked them what they thought. People's views were generally sanguine – stressing that we shouldn't give up on condoms, as they are so effective and cheap. Women did however highlight that they needed additional methods to protect themselves from HIV.

What do these questions have to do with mathematics? Because HIV is infectious, when we compare different policy options it is important to consider how, by averting an infection, subsequent chains of future infections may also be prevented. Sophisticated versions of the calculus that many people learned at school are used to predict how HIV may spread in different countries. Iteratively, mathematical models use data on how much sex everyone is having – and with who – to predict where HIV may spread next.

These models are used as 'what if' tools – to think though what to do where. But why would a mathematician ever choose to follow such a path? A bright mathematician can have a lucrative career as an actuary, doing calculations to figure out how much our insurance should cost. Alternatively, they can get sucked into the financial sector, to help predict how stocks will rise and fall. Standing on my soapbox I tried to explain to passers by what was so interesting and rewarding about using maths in HIV research. Although the hours are at times long and the pay can't compete, the late nights generally come from a desire to address important questions, with the returns in terms of job satisfaction being immense.

There is the danger that 'women in science' events are perceived as an excuse for a winge. Yet talking to passers-by at last week's Soapbox Science event, I was heartened to see how far we had come. One intelligent and engaged woman who grilled me with questions described how, when she was at school, only biology was offered to girls. The women standing on soap boxes showed that times are changing. Talking hoarsely in the bar after, we happily accepted the package of free cosmetics and wrinkle creams that the event sponsors, L'Oreal, had provided, but mainly appreciated the opportunity to chat about our passion – science. I left the event exhausted, but inspired by the people I had met.



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

WOMEN IN SCIENCE: GETTING WOMEN TO STAY IN THE FIELD

Drs. Seirian Sumner and Nathalie Pettoelli

July 22, 2011

The Independent



In 2010, a man was six times more likely to work in a SET (Science, Engineering and Technology) occupation than a woman. That's easily explained by girls being less interested than boys in science, one might reply.

If so, then how come in that same year girls made up half of GCSE students taking SET subjects at GCSE? And it's not just GCSE level. 42 per cent of 18 year old girls take science at A level, and an impressive 60 per cent of undergraduate biology students in the UK are women.

Contrary to the popular myth, women do love science as much as men. The problem is that women do not stay in science.

Take the world of academia. Less than ten per cent of professorships in the UK are held by women, and we are amongst the rapidly dwindling numbers of middle-career women scientists. Over the last decade or so we've witnessed many of our fabulous female peers leave science, whilst most of our male peers go from strength to strength.

At the annual conferences we've attended since we were PhD students, we grow increasingly saddened by the shifting sex ratio amongst our peer groups. Whilst male colleagues are enjoying promotions to Reader- and Professorships, the women are just disappearing. And yet the new influx of keen graduate students continues to be highly female biased, year after year.

We are hardly the first ones to raise the issue of the low proportion of women in science; the topic has been covered many times before. Shockingly, though, nothing has changed.

Yet increasing the proportion of women in science is of central interest to everyone, not just women. Relative to men, women tend to excel in communication skills, social skills, multi-tasking, creative thinking and empathy: these traits are key to boost scientific progress and take science to the next level, especially as science becomes more and more collaborative, integrative and innovative. In short, science needs women.

This afternoon, 12 amazing women that have made major contributions to UK science, ranging from geology to software development, psychology, conservation, astrophysics and chemistry will be taking to a soapbox on London's South Bank. With no slide show, no jargon, no artifice, they will talk first-hand with the public about the fabulous science they do, why they chose a career in science and why this was one of the best choices they ever made.

Our Soapbox Science event is a small effort to make people aware of the issue surrounding women in science, and to encourage more young women to consider careers in science.

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

WHY AREN'T THERE MORE WOMEN IN SCIENCE AND ENGINEERING?

By Cassandra Garrison

July 20, 2011

Metro

As demands for advances in the fields of engineering and science grow, so does women's interest in joining those fields. Gender roles don't have as much of an impact in modern day classrooms as they used to. The amount of men in fields traditionally dominated by women, like nursing, has jumped in recent years. Though women are still the minority in fields traditionally dominated by men, like science and engineering, they are on their way to taking the reins.

According to the National Science Foundation, the amount of women in the fields of science, technology, engineering and mathematics, or STEM, has grown significantly since the 1970's. Just under 78,000 women were enrolled as graduate students in science and engineering in 1977. Compared with nearly 232,000 in 2008, it's obvious that women are finding a place for themselves on those career paths.

Still, men overwhelmingly dominate the fields. In a press release from the Association for Women in Science, Executive Director Janet Bandows Koster says, "Our nation must acknowledge that while women make up almost half of the U.S. workforce, they continue to be underrepresented in STEM professions, particularly in the higher academic faculty ranks and leadership positions."

So what is preventing women from fully taking the field by storm? It could be a lack of equality in the workplace.

"In order to alleviate this problem, action must be taken at the federal and institutional level to alleviate the challenges impeding women's access to these positions, including gender biases in the workplace and outmoded institutional practices," says Koster.

It could also be the fact that young girls have traditionally been taught that math and science are for boys, while they should focus more on literature and writing.

Organizations like AWIS and the Society of Women Engineers work to promote the educational advancement of girls and women in those fields, and they're making their mark. Carol Greider, an AWIS member, won the Nobel Prize in Physiology or Medicine in 2009 for the discovery of how chromosomes are protected by telomeres and the enzyme telomerase. In other words, she's one smart lady who is shining star in the world of science, but she is also a rarity. That's why organizations like AWIS regularly appeal the Congress in an effort to breakdown barriers that women in STEM professions face in the workplace.

Many women in STEM professions say more women need to pursue careers in the fields.



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

RACE MATTERS WHEN RECRUITING, RETAINING UNDERGRADUATE WOMEN ENGINEERS

July 19, 2011

ScienceDaily

Attempts to recruit and retain more women in undergraduate engineering programs often lump all female students into a single group. At best, minority women as a group may receive special attention.

But a new study of female engineering students' perceived challenges finds significant differences between black, Hispanic, Native American, Asian-American and white women. The findings by researchers at University of Washington could help institutions better retain particular underrepresented groups of students.

"What we're finding is these women's experiences are different, which is why grouping all women together doesn't make sense," said co-author Elizabeth Litzler, research director at the UW's Center for Workforce Development. She recently presented the findings in Vancouver, B.C., at the annual meeting of the American Society for Engineering Education.

The study used data collected in 2008 by the Project to Assess Climate in Engineering survey, conducted by UW researchers and funded by the Alfred P. Sloan Foundation. Investigators distributed questionnaires and interviews to undergraduate engineering students at 21 U.S. colleges and universities that were interested in supporting diversity programs. The study received more than 10,500 responses, with higher than average numbers of women and minority students.

"The study's size gave us a really great opportunity to talk about race, which is usually not possible in engineering," Litzler said.

The UW researchers looked at the aggregate findings to seek overall trends among the responses. Students were asked about such subjects as teaching, labs, student interactions, personal experiences and their perceptions of their major.

"We see important trends in our findings," Litzler said. "For example, Hispanics reported feeling like they were taken less seriously than other students. African-Americans, not at all."

However, black women reported higher instances of feeling singled out in the classroom because of their race than Hispanic, Native American and Asian-American women.

Another significant finding related to female students' comfort approaching their professors. Many female students said they were uncomfortable approaching professors with questions, but black women were significantly less likely to report this as an issue.





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1615 W. San Marcos Blvd
San Marcos, CA 92078
GEAR UP Ph: (760) 290-2297
GEAR UP Fax: (760) 290-2260



RANCHO BUENA VISTA HIGH SCHOOL
1601 Longhorn Dr.
Vista, CA 92084
(760) 727-7284 ext. 72846
GEAR UP Ph: (760) 727-7284 ext. 72846
School Fax: (760) 598-7062



VISTA HIGH SCHOOL
1 Panther Way
Vista, CA 92084
GEAR UP Ph: (760) 726-5611 ext. 71092
School Fax: (760) 630-9738

July 6th, 2011

To Whom It May Concern,

The Palomar College GEAR UP Program is pleased to sponsor the Fifth annual STEM Camp for 60 high school students in North County San Diego.

STEM Camp is an 8-day program located at two Southern California Universities (University of Southern California and San Diego State University) during the week of July 31st – August 7th, 2011. STEM Camp is designed to expose students to Science, Technology, Engineering, and Mathematic majors. During STEM Camp, students will learn about some of the careers available in these fields.

Students will be living on campus in student dormitories. They will participate in morning sessions, hear from guest speakers, and participate in activities and fieldtrips. We are currently seeking professionals that will share with our students about their careers and/or education. We will be at USC from Saturday, July 31st to Wednesday, August 3th. The times available for presentations are Sunday and Monday from 8:30am – 10:30am, 10:45am – 11:45am, 1:30pm – 2:30pm, 2:30pm – 3:30pm and 3:30-4:30pm and Tuesday from 8:30am – 10:30am and 10:45am – 11:45am. Presentations can be to the whole group or preferably alternating two groups during the time above.

If you are interested in taking part of our STEM Camp, please contact Daisy Alonso at 760-975.8047 or via email at dalonso@palomar.edu. We appreciate you giving of your time and expertise to motivate GEAR UP students toward higher education and healthcare related fields!

Sincerely,

Calvin One Deer Gavin
GEAR UP Director

Cecilia G. Rocha
GEAR UP Supervisor

Maggie Godinez
Outreach Coordinator