



SWE Outlook

The Philadelphia Section ~ Region E

FY09.1 September 2008

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SWE FY09 Kick-off Meeting

Volunteer Opportunities

Book Review: Who's Afraid of Marie Curie?

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newsletter@philaswe.org

LETTER FROM THE PRESIDENT

Hello SWE Philadelphia,

Welcome to FY2009! We've got an exciting year ahead, with the national SWE conference scheduled for Nov 6-8, 2008 in nearby Baltimore, MD (more on that below) and lots of activities in store for our own section.

Nine of the section's leaders met in Lancaster county on the weekend of Aug 8-10 for our second annual planning retreat. Just as our Olympic athletes were embarking on their quest for gold at the Beijing games, we were beginning to plan our own goals and events for this year. Our jam-packed Saturday included a discussion of SWE's new long-range strategic plan; feedback and brainstorming in the areas of Communications, Outreach, and Professional Development; calendar and event planning; and a review of our draft section budget for FY09. Throughout, the results of our latest member survey helped guide our decisions on everything from meeting topics and locations, to where to devote our resources and section funds.

I want to highlight a few key points from the Strategic Long-Range Plan, which serves as a compass for the organization over the next five years. The plan lists several trends that are expected to affect the future of the engineering profession, including:

- There will be a multi-cultural shift in the workforce, as minorities become the majority in America, which will challenge the status quo.
- Globalization will force more flexibility in the way businesses and individuals work and behave (24/7). There will be an increasing global economy, with more outsourcing, change in location of roles, etc.
- There will be an increase in green design and a focus on environmental impact.

Additionally, some of the goals and objectives touched upon in the plan include increasing the frequency and impact of outreach activities, increasing the quality of and level of participation in professional development programs for all career stages, and empowering women engineers to be successful on their own terms. The section leaders will be taking these trends and objectives into account to develop relevant and useful programs for our members.

Finally, I want to emphasize the very exciting opportunity that Region E will enjoy when the national conference is held in Baltimore this November. I encourage you to take advantage of all the benefits that a conference of this magnitude has to offer, including workshops and tours, Society meetings, a career fair, and more. Please visit www.we08.org for more details and to register! And as always, keep an eye on www.philaswe.org and your inbox for the latest Philadelphia section news. Best wishes for a successful year.

Danielle Dunn

FY09 Section President

NATIONAL NEWS

Virginia Connolly was named the SWE National President for FY09 and she is featured in the Fall issue of the SWE magazine. Virginia and the FY09 Board of Directors are focused on the following for the FY09 year:

- Increasing the number of conversations and connections we have with groups that influence our environment (academia, government)
- Helping our members build their skills by increasing the quality of our professional development offerings throughout all career stages
- Growing the number of leaders through the development of a strong and diverse leadership pipeline

Virginia reminds everyone that we have all levels of support for SWE, “You will get out of SWE what you put in, based on the demands of the moment. If you are in a personal space where a high level of activity isn’t right for you now (or ever), we are thrilled to know you are supporting women engineers just by continuing your membership. If you have room in your life to keep your membership and participate only on a limited basis, we appreciate your support. We have power in our numbers, and therefore every member helps us attain greater attention through his or her membership alone. As life circumstances change, you may be able to participate more fully and reap additional benefits from your membership. Either way, we are happy to have you with us.”



The SWE 2008 National Conference will be held November 6-8, 2008 in Baltimore, MD. Baltimore is no stranger to revolutionary ideals—be it the American or Industrial Revolution. This makes Baltimore perfect for the largest, most comprehensive gathering of women leading the Technical Revolution: WE08. For women engineers, The Society of Women Engineers’ National Conference is the event for career advancement and

professional development. Join us in leading the revolution. Join us for WE08. For more information on the conference, visit www.we08.org.

SWE Live Video Web Seminar Thursday, September 18, 2008 3p.m. - 4 p.m. (EST)

Gaining the Competitive Advantage through Building a Strategic Network

Speaker Kathryn Mayer

REGISTER NOW! (Replays of all live web seminars are available within 48 hours)

Too busy to watch it live? Register now and you will receive a link for the replay within 48 hours of the broadcast. You can replay SWE web seminars 24/7, at your convenience.

What are the primary factors that contribute to the success of the top 5% at large organizations? Often the top 5% performers possess only two major behavioral differences from everyone else: they have three times the network and are constantly taking small risks. On September 18th, Kathryn Mayer discusses key strategies in developing a peer network that facilitates career acceleration. The research on successful leaders demonstrates that your network needs to be comprised of Pacing Partners™ or many types of mentors. Pacing Partners™ are defined as colleagues whom you collaborate with to stimulate each of you to your best performance. The relationship can function on four levels based on varied degrees of trust and expertise: friendly competitor, challenger, mentor, and role model. While most programs focus on finding and developing mentors, this seminar provides practical tips and techniques for cultivating strategic peer relationships in order to broaden your network and accelerate your career.

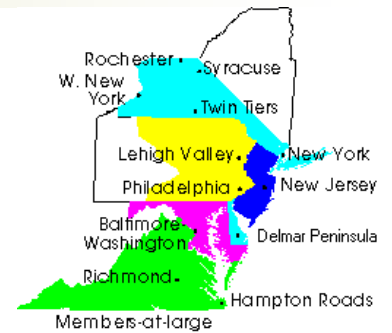
Learning Objectives - Accelerating your career through:

- Understanding what distinguishes the top 5% performers
- Identifying why a strategic network is important for career success
- Defining techniques for forming Pacing Partner™ relationships
- Developing an action plan to form a Friendly Competitor and/or Challenger relationship

REGION E NEWS

The Philadelphia Section is part of the greater SWE Region E. SWE's Region E covers the mid-Atlantic area, including New York, New Jersey, Pennsylvania, Delaware, Maryland, and Virginia. Our region encompasses twelve [professional sections](#) and over fifty [collegiate sections](#).

For more information on Region E, visit <http://www.swe.org/regione/>



SECTION NEWS

SWE Philadelphia FY09 Kick-off Meeting

Tuesday, Sept 23rd

Kildare's King of Prussia

Rt. 202 and North Gulph Rd.

<http://www.kildarespub.com/main.htm>

6:00 pm – 7:00 pm: Networking

**7:00 pm – 8:30 pm: Section Meeting –
Overview of Upcoming Section Events
Volunteer and Committee Sign-Ups**

**9:00 pm: PubQuiz for those who want to stay late.
Win gift cards & more!**

RSVP by Friday, September 19th to rsvp@philaswe.org

Leaves will soon begin to fall, yellow school buses are making their rounds, it's all indicative of the beginning of a new school year and fiscal year for our Philadelphia SWE section. You were already introduced to our FY09 Section President Danielle Dunn, now see what our Vice President's have in store for FY09.

The **Communications Team** will continue to provide our members with information on local, regional and national SWE events, and we also want to hear from you! Events, volunteer opportunities, member spotlights and more will be available on www.philaswe.org, so be sure to bookmark this site and check frequently for the latest. The Google calendar will be up to date and can be accessed from the website or accessed through login. Our newsletter will be published every two months with articles, advice, and opportunities for members to get involved. This year, look for monthly e mails from the team, summarizing what's ahead in SWE Philadelphia and other professional organizations. If you need to change the e mail address subscribed to the section distribution (phila_section@swe.org), please contact Stephanie Carroll or Jen Garner.

We welcome member technical articles, book reviews, announcements, or Q and A for inclusion in the newsletter. Editor Tessa Anodide will also e mail the section to request input for each edition – why not write a short article or submit a best practice from your engineering experience to share with the membership?

Jennifer Garner
FY09 Philadelphia Section Vice President for Communications

The **Professional Development** team is looking forward to offering many exciting meetings and events this year. Topics that are being developed include *Define Your Own Success* and *Women Gone Global*. Also being planned for this year will be a technical tour of a local women-owned business, a holiday social event, and a spring outdoor event! Members may submit ideas for meetings and tours, or interest in being a meeting speaker, to profdev@philaswe.org.

Cassandra Shoup
FY09 Philadelphia Section Vice President for Professional Development

Outreach



VOLUNTEERS NEEDED!!! Engineer Your Life is sponsored by the National Engineers Week Foundation and is a national campaign to encourage college-bound girls to consider engineering enrollment. Volunteers are needed for an EYL booth at a college recruiting fair in Philadelphia on **Sunday, September 28th** from 11 am to 3 pm at the Pennsylvania Convention Center. Both engineering professionals and collegiates are encouraged to volunteer to share their academic and career experiences with the high school girls and parents attending the fair.

EYL fair exhibits are designed to break down stereotypes about engineering and encourage girls to consider it as a college and career option. We are seeking volunteers who can relate well to high school students and their parents. And, while the EYL campaign targets high school girls, the fairs also serve college-bound boys and they will be visiting our booths. If you are interested in volunteering on the 28th, please contact Danielle Dunn.



Several Philadelphia SWE members will be participating in the **Making Strides Against Breast Cancer** fundraising walk on **Sunday, October 12th**. To join the SWE team or make a contribution to a great cause, please visit our [website](#).

The 24th Expand Your Horizons Mini-Conference for 6th Grade Girls

Sponsored by Philadelphia Section of the American Chemical Society and its Women Chemists Committee (ACS WCC), the Philadelphia Section of the Association for Women in Science (AWIS) and Northeastern Montgomery County American Association of University Women (NEMCO AAUW).

This program for 6th-grade girls will be held on **Saturday, October 18, 2008** from 9:00 AM - 1:30 PM at Chestnut Hill College, 9601 Germantown Avenue, Philadelphia, PA 19118, and has as its goals:

- To increase girls' interest in science and mathematics
- To provide students an opportunity to meet women working in non-traditional fields
- To foster an awareness of varied career opportunities for women

Registration materials are posted at the [Association for Women in Science, Philadelphia Chapter](#) website.

October Meeting Information

Create and Discover the Life YOU want through Goal Setting

Widener University

Wednesday, October 22, 2008

6:00 PM ~ Webb Room ~ University Center

Cost: \$15.00 – Dinner and Speaker

~ Sponsored by Widener University SWE Chapter & Career Advising and Planning Services ~
rsvp@philaswe.org by **October 17th**

We all have come to know and see that when you **fail to plan, you plan to fail**. Goal Setting allows you to look at where you want to be and set specific, measurable, attainable, realistically high and time bound goals. Clearly defined goals provide you direction and simplifies decision making.

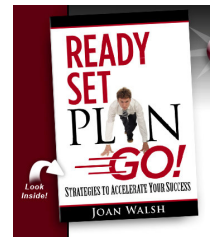
This presentation will give you an opportunity to look at where you are personally and professionally and where YOU want to be. It provides information and tools to:

- Discover the way to bring positive change to your personal and professional life
- Learn “why” it is imperative to set goals
- Find out “when” and “how” to set goals
- Discover ways to make goal setting a life-long habit

Anyone interested in making positive changes to their personal and professional life should attend!

Speaker **Joan Walsh** has worked over the past twenty-seven years with both public and private companies including Cephalon, Brickman, Sankyo Pharmaceutical, Temple University, Eastern Industrial Services, AstraZeneca, Vertex, Delcard and Associates, Westinghouse Broadcasting, Time Warner, and Hallmark Cards, as well as, entrepreneurs and small to medium size businesses.

Joan is the author of Ready, Set, PLAN, Go! and the radio host of Building a Blockbuster Business on PIVTR. She is a member of the Union League of Philadelphia and five of the chambers throughout Southeast Pennsylvania and Delaware. Joan is a Board member of The Dircks Foundation, the College of Mount Saint Vincent and Chester County Workforce Investment Board. She is Chairperson of the Youth Leadership Program at the Chester County Chamber of Business and Industry and the Business Development Advisory Committee for The New Castle County Chamber. She is a member of many women’s organization and is a frequent speaker and workshop facilitator throughout the nation. Joan has a Bachelor of Arts degree and an MBA. Joan’s business partner is also her husband. They live in Kennett Square, PA with their two teenage sons.



MEMBERSHIP ANNOUNCEMENTS

Do you have exciting news to share – it could be anything from graduations to birthdays, engagements to professional accomplishments. Email the [SWE Newsletter Editors](#) with your exciting news!

~

“Habit 3: Put First Things First, Don’t say no to the things that are fundamental and highly important in your life. Sometimes urgent things will crowd them, and there really is not room for everything. But make sure that you say no to the correct things, the things that prevent you from being your best.”

-The 7 Habits of Highly Effective People, pages 156-158

CONTRIBUTING AUTHOR SERIES – BOOK REVIEW

Who's Afraid of Marie Curie? The Challenges Facing Women in Science and Technology

by Linley Erin Hall

Reviewed by Danielle Dunn

When I first saw the title of this book, it seemed so immediately relevant to SWE's membership that I began reading it with the intention to write this review. Although the author focuses more on scientists than engineers, and the majority of the book addresses the world of academia much more than industry, it still provides useful information on the current landscape for all women in technical fields, as well as some excellent advice.

Linley Erin Hall's extensive research is evident in the statistics and anecdotes she provides, derived from published research studies as well as interviews with women in a variety of fields and career stages. Unfortunately, she paints a fairly bleak picture of the climate that girls and women face in their pursuit of a scientific career, starting with pre-college education. Early on, she points out that "increased awareness of discrimination has decreased blatant injustices; now more bias is subtle and hard to fight." This begins quite early in a girl's education, where she may be exposed to unconscious bias from her teachers and in her textbooks. The emphasis on rote textbook learning and memorization of scientific facts only exacerbates the problem. **Hall advises that girls in particular need more hands-on lab experience and real-world interaction with practicing scientists and engineers throughout their education.** This will help girls see themselves in these fields, and hopefully will also help counteract the subtle biases they may encounter.

Hall goes on to describe an uphill battle that many women face as they attempt to progress through undergraduate and graduate studies, postdoc work and tenure-track faculty positions, often while juggling relationships and childcare responsibilities too. She then touches upon how women's experiences in industry and government compare to those in academia. There is also a chapter about women in medicine, and another exploring why women leave science and pursue non-technical fields. Throughout, the author shares some eye-opening stories from her interviews with female scientists and engineers. Some are inspiring – several women talk about bosses and advisors of both genders who encouraged and advocated for them. Others give credit to very supportive husbands who share fully in childcare duties or willingly let their own careers take a back seat to their wives'. Still others, however, confide tales of feeling isolated as the token woman in their department, or being subjected to blatantly sexist or misogynistic behavior from co-workers.

Fortunately, Hall does offer up some solutions to the challenges we still face. She rightly asserts that only sweeping, fundamental changes to the educational system – e.g. requiring gender bias awareness training for all teachers – and to the American work culture will bring about true gender equity. However, she acknowledges that these types of changes will not happen overnight. **In the meantime, what can we do as today's female engineers to make a difference for both ourselves and the next generation?** A few highlights:

- Seek out a mentor for yourself, and provide mentoring to younger engineers or students. A common theme in Hall's book is that women need more mentors and role models to help boost our confidence and encourage us to take on leadership roles (or to pursue technical careers in the first place).
- While many women enjoy a collaborative work atmosphere and have excellent teamwork skills, "research suggests that women on teams may be shortchanged when evaluation time rolls around" if our individual accomplishments are not clear. Be prepared to identify your specific contributions to the team on your resume, in interviews, and year-end performance reviews.
- Ask for what you want. One contributing factor to the gender gap in salaries and higher-level positions is that we are less likely than men to negotiate for more money or promotions. Don't wait for these opportunities to fall into your lap; tell your manager about your advancement goals, and ask what steps you

can take to get there. Similarly, for the working moms out there, Hall reminds us that “the more often people request good part-time jobs, the more these opportunities will grow.”

- When pursuing a new job, “ask questions of the other employees, students, or faculty in private, without the boss around. Are they happy? Is the environment sexist or ultra-competitive? Do they receive support and mentoring? Would they join the group again?” If their answers raise your suspicions, try to probe a little further. On the flip side, when turning down or leaving a position, be as tactfully honest about your reasons as you can. As Hall explains, “Institutions are more likely to address problems if they are not only aware of them but know that they are having a negative impact” on recruitment and retention.
- If any of your daughters, or those of your family or friends, seem to be showing a curiosity for science, definitely pick up a copy of this book and read Appendix 1. Hall offers several resources and creative ideas for encouraging and developing girls’ interest in science and technology.

One hopes that we can look forward to a domino effect of positive change: As more women join the ranks of scientists and engineers, and make strides to higher levels, subsequent generations will find it progressively

easier to do the same. In the meantime, *Who’s Afraid of Marie Curie?* is an informative read about where we stand now, and how we might give those dominos a little push.

Read any good books lately? Share with our SWE Community and submit a book review to be published in the next edition of the newsletter!

MEMBER SPOTLIGHT – JULIE NICHOLAS

Julie has been a SWE member for 8 years and is currently working as an Environmental Engineer for Jacques Whitford Company. Her primary responsibility is environmental permitting for land development projects for major utility companies. Responsibilities involve developing grading plans, erosion & sediment control plans, along with storm water management plans. She is also involved in wetland construction projects.

Julie graduated from Princeton University in 2003 with a Bachelor’s Degree in Civil & Environmental Engineering and a minor in Environmental Studies. In 2007, she graduated from Temple University’s Fox School of Business with an MBA in Finance. Julie has previously worked with ENVIRON International Corporation in Princeton, NJ as a human health risk assessor on Resource Conservation and Recovery Act (RCRA) projects for General Motors, and also as a project engineer for Black & Veatch in Philadelphia for their USEPA Remedial Action Contract (RAC) on SUPERFUND sites in Region 3 (Mid-Atlantic: DE, MD, PA, WV, VA & DC).

Julie enjoys running, biking, golf, skiing, and traveling while running, biking, playing golf, or skiing. During the summers she enjoys spending time at her family’s lake house near her hometown of Clarks Summit, PA. During the winter you can generally find her on the slopes anywhere between Utah and the Poconos.



1943 Guide to Hiring Women

Thanks to Danielle Dunn for submitting the following article, “1943 Guide to Hiring Women.” This is a great example of how far women have come in the workforce. In Danielle’s words:

“Wow. I mean wow. Reading stuff like this makes me feel SO grateful that I was born almost 40 years after this was published. Even the way they keep referring to “using” women in the workplace is repulsive.”

1943 Guide to Hiring Women

The following is an excerpt from the July 1943 issue of Transportation Magazine.

This was written for male supervisors of women in the work force during World War II.

Eleven Tips on Getting More Efficiency Out of Women Employees: There's no longer any question whether transit companies should hire women for jobs formerly held by men. The draft and manpower shortage has settled that point. The important things now are to select the most efficient women available and how to use them to the best advantage.

Here are eleven helpful tips on the subject from Western Properties:

1. Pick young married women. They usually have more of a sense of responsibility than their unmarried sisters, they're less likely to be flirtatious, they need the work or they wouldn't be doing it, they still have the pep and interest to work hard and to deal with the public efficiently.
2. When you have to use older women, try to get ones who have worked outside the home at some time in their lives. Older women who have never contacted the public have a hard time adapting themselves and are inclined to be cantankerous and fussy. It's always well to impress upon older women the importance of friendliness and courtesy.
3. General experience indicates that "husky" girls - those who are just a little on the heavy side - are more even tempered and efficient than their underweight sisters.
4. Retain a physician to give each woman you hire a special physical examination - one covering female conditions. This step not only protects the property against the possibilities of lawsuit, but reveals whether the employee-to-be has any female weaknesses which would make her mentally or physically unfit for the job.
5. Stress at the outset the importance of time the fact that a minute or two lost here and there makes serious inroads on schedules. Until this point is gotten across, service is likely to be slowed up.
6. Give the female employee a definite day-long schedule of duties so that they'll keep busy without bothering the management for instructions every few minutes. Numerous properties say that women make excellent workers when they have their jobs cut out for them, but that they lack initiative in finding work themselves.
7. Whenever possible, let the inside employee change from one job to another at some time during the day. Women are inclined to be less nervous and happier with change.
8. Give every girl an adequate number of rest periods during the day. You have to make some allowances for feminine psychology. A girl has more confidence and is more efficient if she can keep her hair tidied, apply fresh lipstick and wash her hands several times a day.
9. Be tactful when issuing instructions or in making criticisms. Women are often sensitive; they can't shrug off harsh words the way men do. Never ridicule a woman - it breaks her spirit and cuts off her efficiency.
10. Be reasonably considerate about using strong language around women. Even though a girl's husband or father may swear vociferously, she'll grow to dislike a place of business where she hears too much of this.
11. Get enough size variety in operator's uniforms so that each girl can have a proper fit. This point can't be stressed too much in keeping women happy.



September / October 2007

PROFESSIONAL OPPORTUNITIES

September 16th, AIAA aiaa.philly@gmail.com

ASME/AIAA Dinner Meeting - "Untold Stories From Space" with space author and historian Robert Zimmerman. Villanova CEER Building Rm 001

September 22nd, www.iesphl.org

Fall Social - IES Lamplighters Joint Activity, Manayunk Brewery and Restaurant at the deck overlooking Delaware River. Cost \$20.00 per person

September 23rd

Lighting for a Green World at Crowne Plaza Hotel Philadelphia Main Line, 4100 Presidential Boulevard, Philadelphia. Lighting for a Green World offers thirteen (13) seminars, a keynote luncheon seminar and a Lighting Basics Mini-Course in four program tracks, totaling up to 36 AIA Learning Units or IESNA CEU.s. Tracks include Design, Technology and Education. Conference attendees will receive certificates of participation. Certificates for professional development continuing education units for AIA and IESNA will be provided upon request

September 25th

Women for Hire - Career Fair, 10am – 2pm, Pennsylvania Convention Center
Free admission, free resume critiquing, resumes required for admittance, business attire required

October 2nd, info@pagovernorsconferenceforwomen.org

Pennsylvania Governor's Conference for Women, David L. Lawrence Convention Center, Pittsburgh

October 3rd, IEEE WiE, Register <https://icm3.ieee.org/eventmanager/onlineregistration.asp?eventcode=WTR>
Second Annual Professional Development Seminar – Women in Engineering Conference, The objective of IEEE-USA 2008 PDS conference in Region 2 is for IEEE and WIE members and guests to come together to help engineer their future, network, exchange information and share experiences that address engineering interests. This will strengthen the membership of IEEE and WIE members in region 2 as well as other regions through this two day conference entitled "Engineering Your Future" with workshops to address enhancing your career through education.



October 14th

"Personal Investigation with Light," a presentation by Derek Porter will be held on Tuesday, October 14th at Spasso's Italian Grill - 34 South Front Street, Philadelphia Dinner at 6:00 pm with presentation at 7:00 pm; Cost \$35 IES Member/ \$40 non-member / \$10 no dinner

October 25th, Register at www.acteva.com/go/aiaa

4th Annual Aerospace & Mechanical Engineering Mini-Symposium. Plymouth Meeting Doubletree
The deadline for abstract submissions is Friday, October 3rd. Notification of acceptances will follow on October 10th. Registration is \$75 before October 17th (increases to \$80 after) for professionals and \$25 for full-time students.

**SOCIETY OF WOMEN ENGINEERS
PHILADELPHIA SECTION,
REGION E**

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Address Correction Requested

UPCOMING EVENTS

September 2008	
18 th	SWE Live Video Web Seminar
23 rd	FY09 Philadelphia SWE Kick-off Meeting
October 2008	
22 nd	SWE October Meeting – Widener University
November 2008	
6 th – 8 th	SWE 08 National Conference



**Society of
Women Engineers**

ASPIRE • ADVANCE • ACHIEVE

Mission: Stimulate women to achieve full potential in careers as engineers and leaders, expand the image of the engineering profession as a positive force in improving the quality of life, demonstrate the value of diversity.

The Philadelphia Section was one of the original chartering sections of SWE, chartered on May 27, 1950.