

CHRISTIAN WOMEN IN SCIENCE – STATE OF CWIS

ASA 2015 Annual Meeting

July 25, 2015

Tulsa, Oklahoma

Lynn L. Billman

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What is CWIS?

- A place for Christian Women in Science to connect with like-minded people
- An affiliate group of the American Scientific Affiliation (ASA)
- Launch: July 2013 ASA Annual Conference
- Mission: *To encourage Christian women of all ages to pursue, sustain, and grow in a career in science, technology, engineering or math, and to encourage women in these endeavors to pursue, sustain, and grow in the Christian faith*

What Does CWIS Offer You?

- For CWIS members
 - Emails on what's new
 - Access to others CWIS-ers throughout the country through the ASA membership directory
- For all CWIS-ers
 - Blog space dedicated to CWIS topics
 - Email Buddy program – especially for Students and Early Career
 - Lifting Up Stories
 - Personal help from CWIS leaders (Board)
 - Info and informal partnerships with related organizations
 - Connections and encouragement!

CWIS Board of Directors

- Six women, coast to coast
- Secular academic, Christian academic, government research
- Early career, mid-career, retired
- Members, 2014-2015:
 - **Dr. Gayle Ermer**, engineering, Calvin College (MI)
 - **Dr. Beth Kroa**, chemistry, Bethel College (IN)
 - **Ms. Faith Tucker**, physics/astronomy education, Valley Christian High School (CA)
 - **Dr. Kristen Tolson**, biology, UC San Diego (CA)
 - **Dr. Pat Fitzgerald-Bocarsly**, immunology, New Jersey Medical School at Rutgers University (NJ)
 - **Ms. Lynn Billman**, chemistry and energy analysis, National Renewable Energy Lab (retired) (CO)

CWIS Board and Contacts

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Christian Women in Science

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Promote THIS WEEK 422 Post Reach 41 Post Engagement

Recent 2015 2014 2013

Give Your A+ Here

NEED MORE GOOD “FINDS”!

454 likes +1 this week Timothy E. Billman

422 posts this week What have you been up to?

facebook.com/ChristianWomenInScience# CWS Christian Women in Science

Like Page - 454 people like this page

CWIS Blog

Homage to Mary Anning



Posted By [Alice C. Linsley](#), Wednesday, May 21, 2014

[Edit Post](#) [Delete Post](#)

Today's Google Doodle pays homage to one of the great women in Science, Mary Anning.



Google Inc paid homage to the 215 anniversary of the birth of Mary Anning on May 21 2014 with this Doodle on the homepage. Image credit: Google Inc.

Mary Anning (1799-1846) by the age of 12 had already discovered in rocks of the English countryside fossils that she would later describe as a plesiosaur. She spent more than 30 years collecting and describing fossils mostly in rock of Jurassic age. Anning along with William Buckland, who was well aware and an admirer of Mary's work and described the first true dinosaur, and Cuvier who described and wrote about dinosaurs were instrumental in developing a picture of life in the Jurassic. It eventually led to Cuvier's specific proposal that there had been an "age of reptiles." This was a time when reptiles would have been the dominant animal life on earth versus the mammals that we have today. Like the discovery of deep time itself over the previous century this idea of earth's changing biota over time presented a

NEED MORE BLOGWRITERS!

Lifting Up Stories



Lifting Up – Dr. Pat Fitzgerald-Bocarsly



Dr. Patricia (Pat) Fitzgerald-Bocarsly is a ten at the New Jersey Medical School at Rutgers. I Andrew Bocarsly, also a scientist, have raised at the time of this interview, were looking for grandchild. Of their children, one daughter is another daughter is a social worker, and her s chemistry. Pat has long been a supporter of w science, and recently discovered the [American Scientific Affiliation](#). See more about Pat at her profile in the ASA membership directory.

Why are you a Christian? While I was raised nominally Christian in a high school youth group. Being a Christian is not an intellectual solution -- God reached out to me and has been incredibly faithful to my husband and I met as undergrads; he came from a Jewish background and we talked about Jesus.

Why are you a scientist? I've always been fascinated with science from a first grade salt crystal experiment. In my first research lab things was my passion. I loved getting the data and discovering so have those "aha!" moments with my grad students. Biomedical science to me, and I was on the fence between becoming a physician or an immunologist as an undergrad, and it seems I've always been interested to do viral immunology.



Lifting Up – Dr. Deborah Haarsma

Dr. Deborah Haarsma serves as President of The BioLogos Foundation, a position she has held since January 2013. Previously, she served as a professor and chair of Physics and Astronomy at Calvin College in Grand Rapids, Michigan. Deb has long been a supporter, presenter, and contributor to the [American Scientific Affiliation](#) (ASA). See more about Deb at her profile in the ASA membership directory.

Why are you a Christian? While I grew up in a Christian home, I am a Christian today because I made an adult choice to follow Jesus. I committed and recommitted my life to Christ multiple times through my childhood and young adult years, as I grew to understand God, the Bible, and my need for Christ more deeply. Every day is still a journey where I need God's grace and forgiveness.

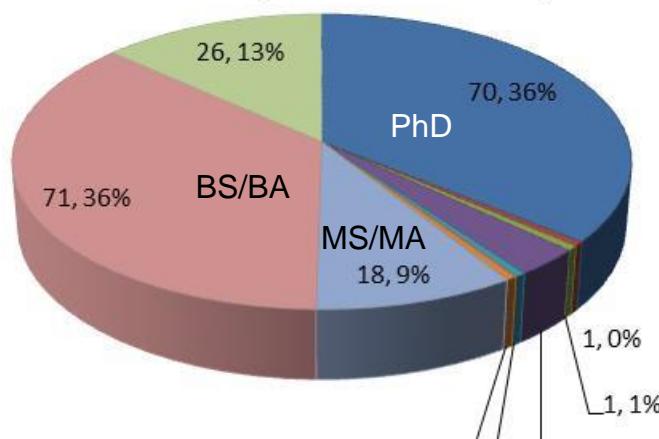
Why are you a scientist? I almost wasn't. I grew up loving piano and classical music as well as science and math. I even did a double major in piano and physics, before deciding to pursue a science career. (I continued piano on the side, of course – it's a lot easier than doing physics on the side!) In college, I remember lab projects where our group collected data, graphed it, and plotted the theoretical prediction over the data, and – lo and behold -- it fit! I am still amazed every time I see physical theories, developed by human reasoning, accurately describing the real world that God created. In grad school, I decided to specialize in astrophysics because I was fascinated by the extreme physics out there in the universe that we can't replicate on earth, like

NEED MORE STORIES!

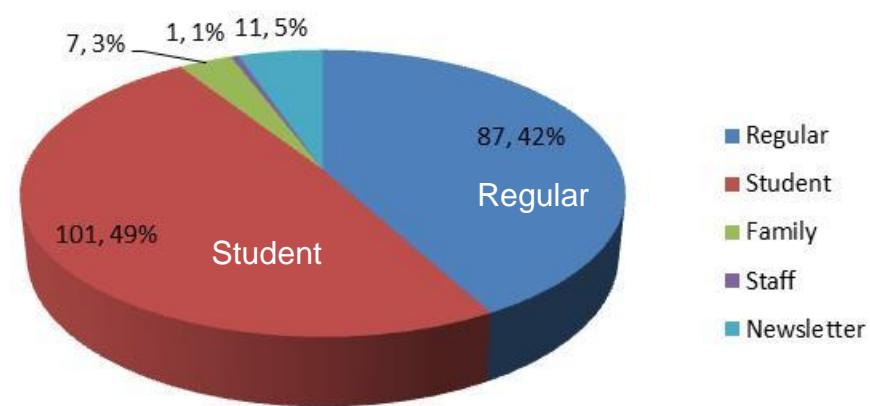


CWIS – Who Are We? (207 members)

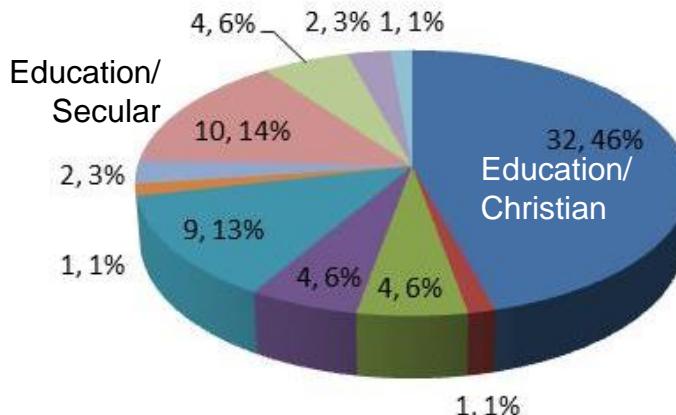
By Highest Degree
(out of 195 entries)



By Membership Type



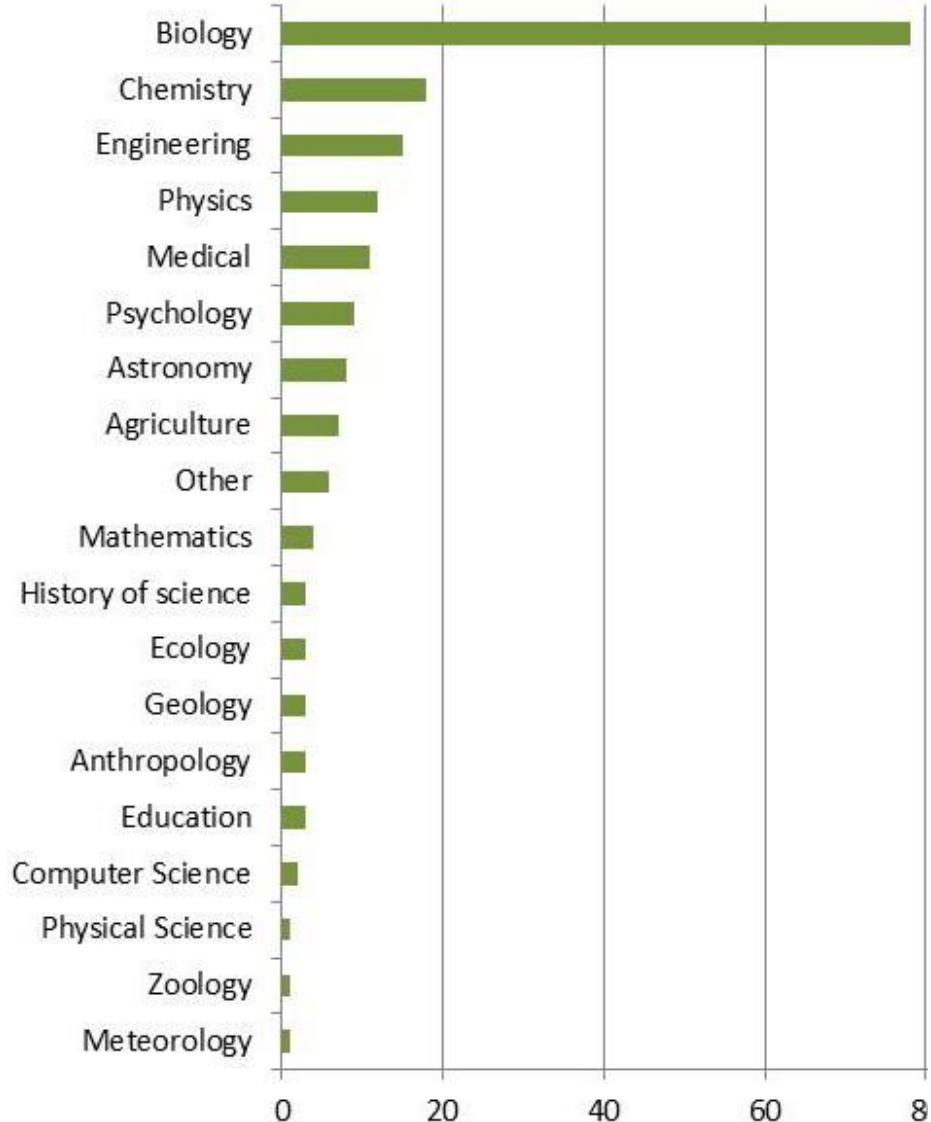
By Profession
(out of 70 entries)



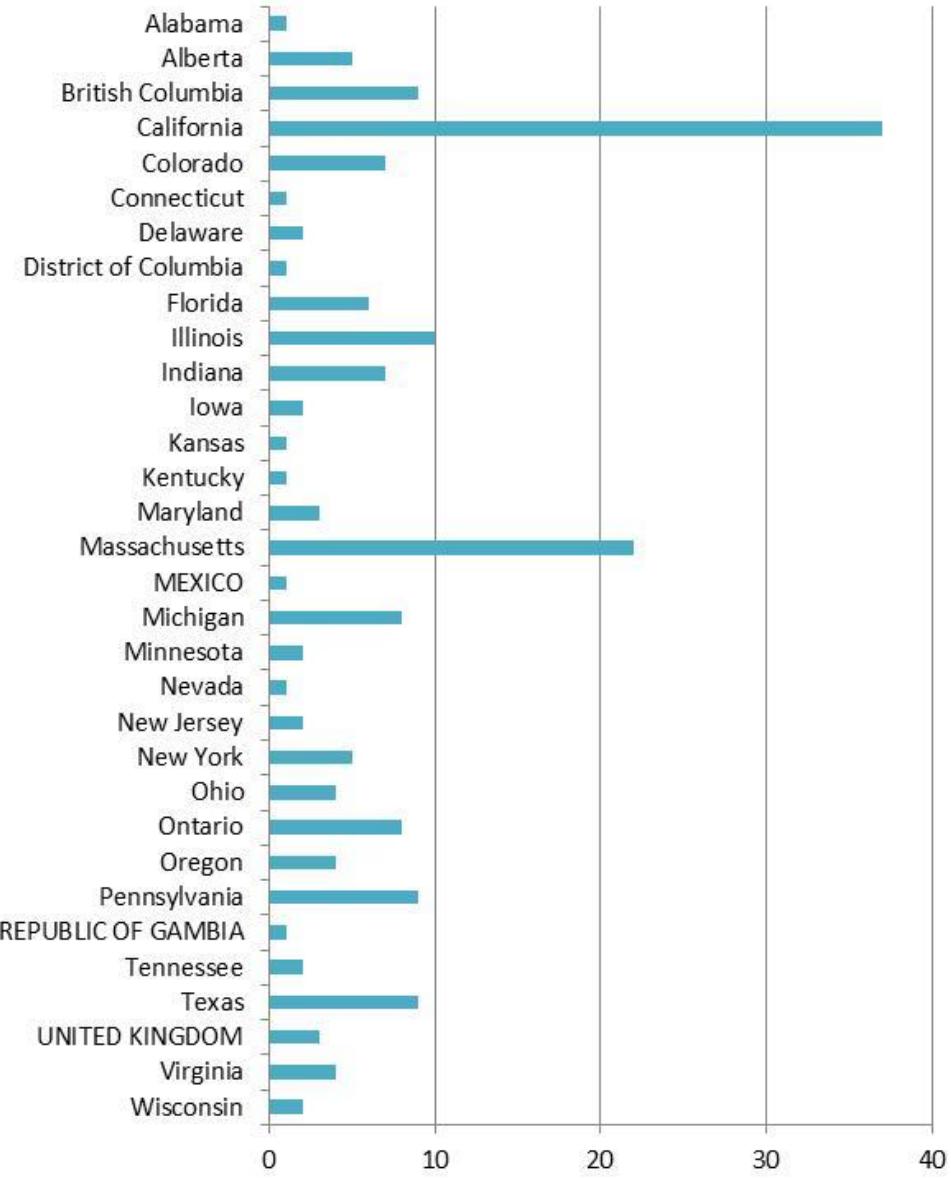
- Education/Christian
- Industrial Research
- Government Research
- Engineering
- Other Profession
- Computers
- Retired
- Education/secular
- Medical
- Student

By Technical Discipline

(out of 188 entries)



By Location



How to Find CWIS

- Webpage: <http://network.asa3.org/group/CWIS>
- Facebook:
<https://www.facebook.com/ChristianWomenInScience>
- Email: CWIS.ASA@gmail.com

Women in the ASA

	6/1/2013	7/10/2014	7/19/2015
Members: Male	1450	1438	1580
Members: Female	320	401	556
Women as % of Total	18%	22%	26%
Fellows: Male	167	171	154
Fellows: Female	19	19	22
Women as % of Total	12%	11%	13%
Students: Male	n/a	n/a	381
Students: Female	n/a	n/a	358
Women as % of Total	n/a	n/a	48%
CWIS Members	0	118	207

GOOD NEWS!

MIXED NEWS

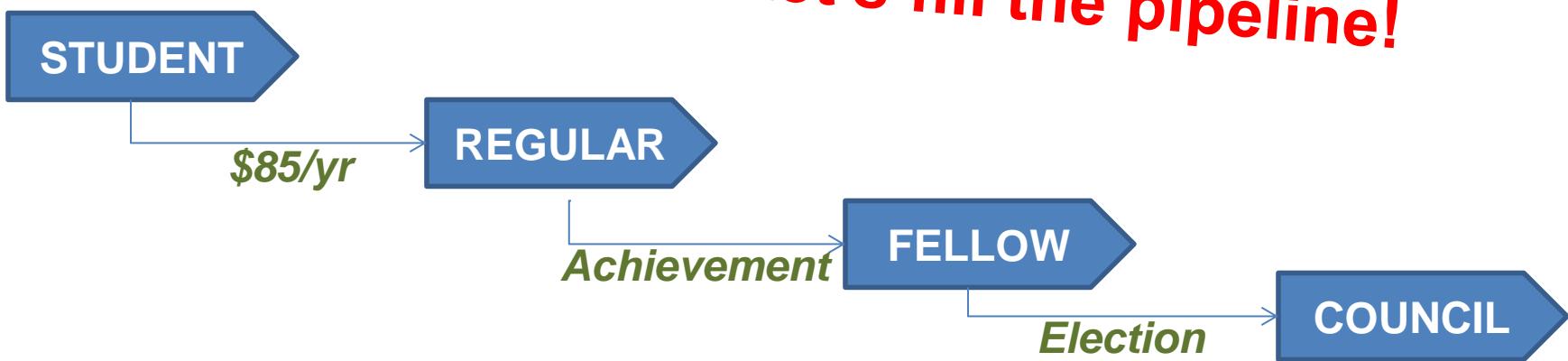
GOOD NEWS!

GOOD NEWS!

Women on ASA Council

- ASA Council has five members, rotating one/yr
- Since 1983, we've struggled to retain one female among the five members each year
- Could not find a female candidate for the Fall 2015 election

Let's fill the pipeline!



How Can We Retain Students in ASA?

- Nexus Forum! (to build connections; just launched)
- Ask them (do a survey)? **What do you think?**
 - Encourage the formation of campus-level ASA relationships?
 - Increase the amount of scholarship money to encourage SEC members to come to the annual conference?
 - Formalized networking opportunity at each annual conference?
 - Continue to have a “Plenary Speaker/SEC Member” social hour?
 - Offer a session or workshop at each annual conference on life/work issues?
 - Inform all SEC members about mentoring or mentor-like opportunities?
 - Maintain and expand a “Job Board”?
 - Improve the ASA online member database?

Becoming a Fellow in ASA

- Five years as REGULAR member (not student)
- Strong accomplishments in at least two of these three areas:
 - Professional / technical achievements
 - Contributions to ASA (national or local chapter)
 - Contributions to faith/science discussions beyond ASA

**Tell me about someone
you know and how they
are qualified!**

Tell me about yourself!

NEW! – Nexus Forum

- A place to connect with other ASAers
- Share with, and benefit from, fellow ASA members from all professions, perspectives, and life experiences.
- Outgrowth of CWIS efforts
- One new Topic each month

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Forums

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NEXUS

	TOPICS	POSTS	LATEST ACTIVITY
FORUM INFORMATION AND GUIDELINES	4	5	Welcome to the ASA NEXUS Forum by S. Carlson Wednesday, July 15, 2015
General information about the NEXUS Forum and guidelines for participation are posted here.			
Topic: Academia vs. Industry	1	2	Question 1: Academia vs. Industry by L. Billman Thursday, July 16, 2015
Questions for discussion on issues related to science careers in academia and industry.			
Topic: Career Stages	1	2	Question 1: Career Stages by L. Billman Thursday, July 16, 2015
Questions for discussion relating to career stages for science professionals.			

GENERAL

TOPICS POSTS LATEST ACTIVITY

OPEN FORUM

27 191

Cosmos 2nd round?

One New Question Each Week

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Calendar

more

7/12/2015 » 7/31/2015
America and China: 150 Years of Aspirations and Encounters, Grand Rapids, MI

7/22/2015 » 7/25/2015
"The Human Difference?" Oxford, England

7/24/2015 » 7/27/2015
"Hearing God's Voice in Nature," Tulsa, OK

7/24/2015
2015 ASA Annual Meeting

8/17/2015 » 8/21/2015
"The Origin and Concept of

Question 1: Academia vs. Industry

[Forum Index](#) » [Topic: Academia vs. Industry](#) » [Question 1: Academia vs. Industry](#)

Moderator(s): Sharon Carlson

Thread Score:   

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7/16/2015 AT 4:41:00 AM GMT



Question 1: Academia vs. Industry

What are the pros and cons of teaching at a university, doing research at a large or small company, or doing research at a government lab?

 [Permalink](#)  [Report](#)  [Quote](#)

S. Carlson

Posts: 29

Related resource: *Jurassic July: The Three-Legged Stool of Science*, by Andy Walsh. [Emerging Scholars Network Blog](#), July 8, 2015. (Click here for link)

Jump in yourself!

Last edited Thursday, July 16, 2015

7/16/2015 AT 7:54:48 PM GMT



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My experience is in doing research at Chevron (large company) and at the National Renewable Energy Laboratory (government lab). I also had a brief stint at a small private company with a few employees. I think the pros and cons is dependent on your personality. I value stability, and so was much happier at the large private company and government lab than the small company. Large institutions have more rules and regulations to follow, but provide more benefits and security, and variety in the types of work possible, in

Nexus Forum -- Potential Topics

- Academia vs Industry
- Career Stages
- Graduate School/Post doc Life
- Professional Expectations
- Entrepreneurship
- Maintaining Personal Balance
- Life Stages/Decisions
- First Generation College Student/Scientist
- Faith and Work
- Faith Journey
- The Job Market
- Identity/Self-Awareness
- Cultural Challenges
- Overcoming Roadblocks
- Crisis, Grief, and Loss
- Relationships and Family

What's *important* to YOU?

CWIS Next Year in California

- Technical session/panel? On what topic/theme?
- Special local tour sponsored by CWIS? For women only? (Friday)
- Networking Lunch? Hike? (Saturday)
- “State of CWIS” meeting? (Saturday or Sunday evening)
- Bible study/devotional time for women only? (Friday)
- Something extra for women on Thursday?
- Organize child care (bring the family)?

What do YOU think?

THANKS!

Lynn L. Billman

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