

10-2-2018

The Status of Women in STEM in Higher Education: A literature review 2007-2017


Heidi Blackburn

University of Nebraska at Omaha, hblackbu@gmail.com

Tarun Chaturvedi

University of Nebraska at Omaha

Follow this and additional works at: <https://digitalcommons.unomaha.edu/crisslibfacproc>

 Part of the [Higher Education Commons](#), and the [Library and Information Science Commons](#)

Please take our feedback survey at: https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE

Recommended Citation

Blackburn, Heidi and Chaturvedi, Tarun, "The Status of Women in STEM in Higher Education: A literature review 2007-2017" (2018). *Criss Library Faculty Proceedings & Presentations*. 97.
<https://digitalcommons.unomaha.edu/crisslibfacproc/97>

This Presentation is brought to you for free and open access by the Dr. C.C. and Mabel L. Criss Library at DigitalCommons@UNO. It has been accepted for inclusion in Criss Library Faculty Proceedings & Presentations by an authorized administrator of DigitalCommons@UNO. For more information, please contact unodigitalcommons@unomaha.edu.

THE STATUS OF WOMEN IN STEM IN HIGHER EDUCATION

A literature review 2007-2017

DR. HEIDI BLACKBURN, UNO LIBRARIES
TARUN CHATURVEDI, UNO MIS PROGRAM

Twitter: @heidiblackburn #WIITNE

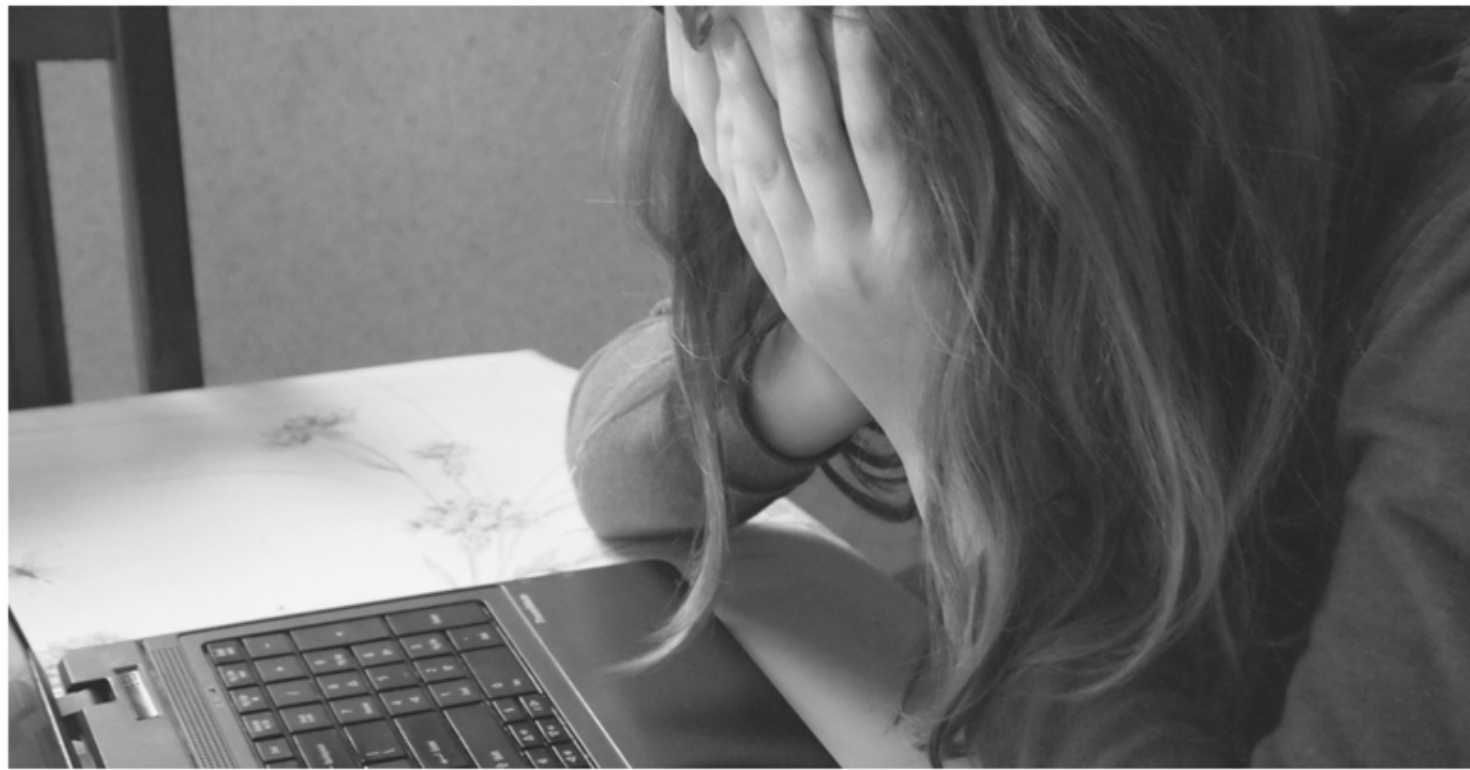
WHERE ARE THE WOMEN?

Use a search engine to find a study on women in college or universities studying (or teaching) science, technology, engineering, or math.



NATIONAL ATTENTION

- STEM education is a national priority (Obama, 2016)
- Recruiting and retaining women to STEM careers is at an all-time high in K-16 schools
- Where is this information?



WHY IS IT SO HARD TO FIND?

- STEM was coined in 2001 but just recently picked up in usage
- "stem" also brings up "stem cell" and "plant stem" resources
- Very popular in news, blogs, press releases, and commentaries

TALKING ABOUT THE PROBLEM

Review of the literature shows there are hundreds of existing studies from 2007 to the present to help recruiters, administrators, public servants and educators recruit, retain, and support women in STEM.

Blackburn, H. (2017). The Status of Women in STEM in Higher Education: A Review of the Literature 2007–2017. *Science & Technology Libraries*, 36(3), 235-273.

Access a FREE copy at <https://digitalcommons.unomaha.edu>

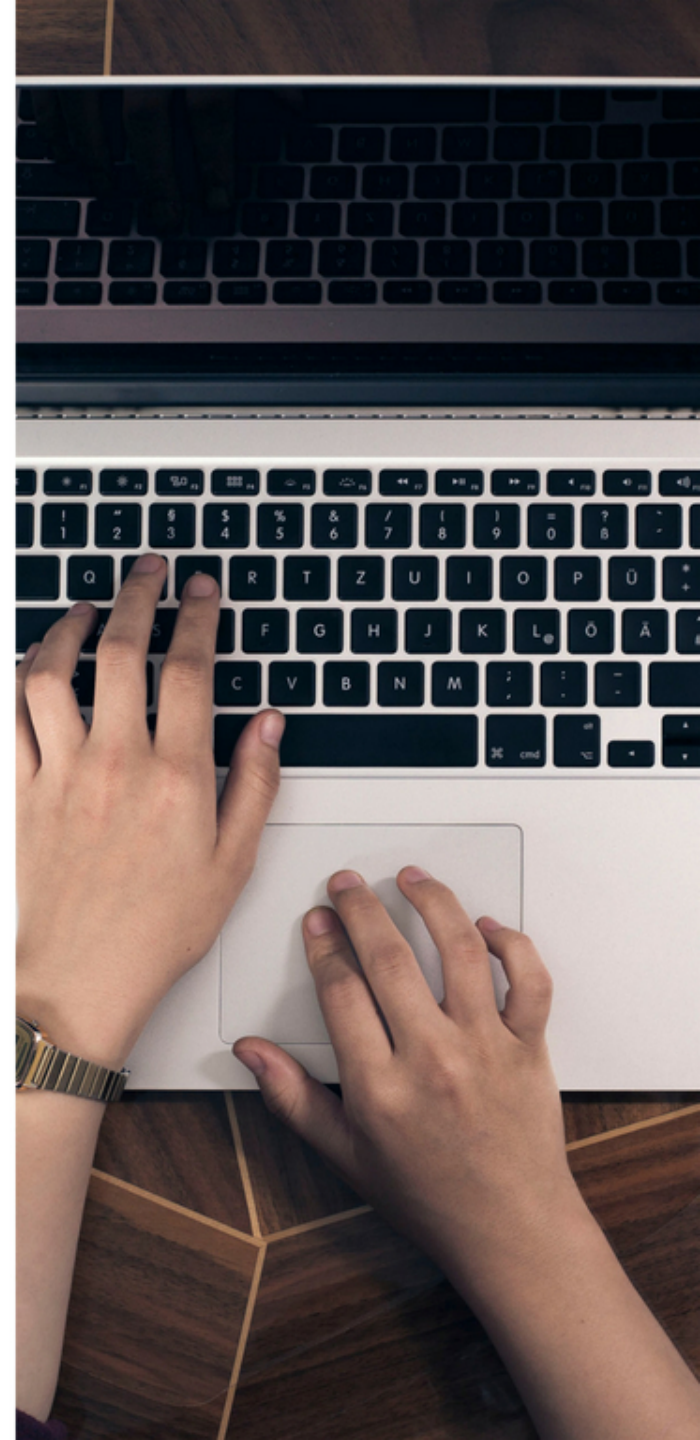
IF I CAN'T FIND IT...

I have to do something!



THE PLAN

- Carnegie-Whitney Grant for \$
- Hire a library science student
- Make a website
- Get the word out!



**AMERICAN LIBRARY
ASSOCIATION (ALA)
CARNEGIE-WHITNEY GRANT**

*...for the preparation and publication
of popular or scholarly reading lists,
indexes and other guides to library
resources that will be useful to users of
all types of libraries.*



IMAGINED VS REAL LIFE

- Library student who needs experience/presentations
- Check arrives right on time
- We start in May
- 16 weeks of part-time work for self-sufficient assistant
- Presentations to get the word out to constituents
- Small pool of applicants at the end of the school year
- Delayed start waiting for check
- Assistant left for graduate assistantship in August
- Timeline cut in half and workload doubled
- Software limitations
- Presentations

TIMELINE

- August 2017 - Literature Review published
- December 2017 - Grant application turned in
- March 2018 - Grant awarded
- April 2018 - Waiting on check to arrive...
- May 2018 - Research assistant job posted and student hired
- May 2018 - Waiting on check to arrive...
- June 2018 - Research assistant starts
- July 2018 - Research Guide citations entered
- August 2018 - Research assistant finishes work
- October 2018 - Women Advance IT conference
- January 2019 - Project final report due

RESEARCH TEAM



Dr. Heidi Blackburn



Springshare
LibGuides



Tarun Chaturvedi

WHAT DID WE INCLUDE?

- *Focus on higher education (including community colleges and two-year programs)*
- *Peer-reviewed journal articles*
- *Dissertations and theses*
- *Government and association reports*
- *Books and book chapters*
- *Published between 2007-present but slowly adding back files*
- *Starting to include K-12*
- *As much Open Access material as possible!*



THEMES WE FOUND:

- *Recruitment and the Pipeline*
- *Retention, persistence, and attrition*
- *Barriers, biases, stereotypes*
- *Campus culture*
- *Classroom and lived experiences*
- *Identity and self-concept*
- *Careers and entering the workplace*
- *Work-life balance for faculty*
- *Tenure, promotion, mentoring, and administrative issues for faculty*


*More studies needed with intersectionality!



FINAL PRODUCT

libguides.unomaha.edu/womeninSTEM

WOMEN ADVANCE IT 2018



UNIVERSITY OF NEBRASKA OMAHA
DR. C.C. & MABEL L. CRISS LIBRARY

[UNO Criss Library](#) / [LibGuides](#) / [Women in STEM in Higher Education](#) / Home

Women in STEM in Higher Education

Bibliography covering the recruitment and retention of women in Science, Technology, Engineering, and Math in the United States. #STEM #WomeninIT #WomeninSTEM

Home

Welcome

Other Helpful Guides

Recruitment

Retention

Barriers

Identity

Careers


Faculty Issues

Books

Government Documents

Policies and Strategies for Change

Welcome



Welcome to the Women in STEM Research Guide. This guide will help you identify important resources including:



- scholarly articles,
- books,
- e-books,
- theses/dissertations,
- government documents.

Open Access materials have been included as often as possible to enhance accessibility by linking to OA publishers and to library repositories for theses and dissertations. If the item is behind a pay wall, please contact your institution's library or your local public library to request access to this item.

If you need help or would like a publication to be considered for this bibliography, please email Dr. Heidi Blackburn at hblackburn@unomaha.edu.

This project was funded by an American Library Association Carnegie-Whitney grant (2018) and builds on the study "The State of Higher Education: A Review of the Literature 2007-2017" (Blackburn, 2017).

Image used under CC0 1.0 Universal (CC0 1.0) . Created by coffeebeanworks at <https://pixabay.com/photo-2191931/>



QUICK STATS TO DATE

libguides.unomaha.edu/womeninSTEM

Number of citations entered: ~1,100

Number of views: 362

Linking from: Google, LibGuide

Most popular pages: Home page, Barriers

STUDENT RESEARCH ASSISTANT FEEDBACK

What did you learn?

I am glad that I was part of it, I got a chance to learn about different softwares, APA formatting and this project improved my research skills.

What did you like best about the project?

The best thing about this project was research, even I gained so much knowledge about women in STEM and I think this project is going to make life of people easier who wants to know about this topic.

What was most frustrating?

Most frustrating I would say was the browser taking time to load the Refworks [citation software] (I tried different browsers too) and sometimes I had to refresh multiple times to get a particular page.

What skills or lessons learned will you take away for your future career?

It has improved my time management skills, research skills and I got some good experience in working as a team.

FUTURE PROJECTS

- Continue adding citations
 - Share with STEM departments
 - Presentation to UNO WiSTEM
 - Present at library conferences
-

THANK YOU FOR LISTENING!

Please take some time to explore and share our site!

libguides.unomaha.edu/womeninSTEM

Connect with me at hblackburn@unomaha.edu or

[@heidiblackburn](https://twitter.com/heidiblackburn)