WOMEN VETERANS IN STEM

STRENGTHENING THE PIPELINE FROM SERVICE TO STEM FOR WOMEN VETERANS
Recommendations

This work is supported by the National Science Foundation under Grant No. 1932651. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.
Welcome!
What sector do you work in?

- Employer
- Policymaker
- Professional Organization or Association
- Military
- Veteran Serving Organization (VSO)
- Education
- Government Agency
- Elected Official
- Other
Our goal is to increase the number of women veterans entering STEM careers
Project Timeline

- **October 2020**: White Papers
  - Release of the "state-of-the-state" white papers

- **March 2021**: Convening
  - Working groups develop observations and recommendations.

- **July 2021**: Call to Action
  - Release of recommendations, next steps, and call to action
White Paper Series

Engaging and Retaining Women Veterans in the STEM Workforce

Why is it important to support women veterans’ entry into STEM careers?

Women veterans bring many strengths to the civilian workforce, including leadership, teamwork, problem-solving skills, resilience and persistence.

Supporting women veterans’ entry into the STEM workforce will be advantageous both to the field and also will help the women themselves. Women veterans in STEM professions make 54% more than non-veteran women in non-STEM jobs, and they earn 13% more than non-veteran women in STEM. There are many pathways into STEM careers for women veterans will strengthen post-service financial stability for them and their families.

We know that women veterans are interested in pursuing STEM careers. They are nearly twice as likely to be in a STEM occupation than non-veteran women. The top three STEM occupation categories for women veterans are computer and mathematical, computer science and information technology, and engineering. This is notable because engineering and computer science are two STEM occupations where women are most underrepresented, making up just 23% and 36% of the total workforce, respectively. Given that most women in the military are women of color, supporting women veterans’ entry into STEM professions will increase both gender and racial diversity in a field where most jobs are held by men who identify as White or Asian.

Women Veterans in STEM

Strengthening the Pipeline from Service to STEM

A series focusing on the future of Women Veterans in STEM

This paper was developed as part of a National Science Foundation-funded project seeking to improve participation by women veterans in the STEM workforce. It is the first of four papers aimed at providing a snapshot of what is currently known about women veterans’ participation in the STEM workforce, factors that affect their participation, and promising practices to increase participation and success in these fields. A convening in early 2022 will bring together key stakeholders to discuss the implications of these findings and how to best interpret and scale the impact of existing initiatives to support women veterans’ success.
Women veterans bring many strengths to civilian workforce, including leadership, teamwork, problem-solving skills, resilience & persistence
Most veterans’ support services were developed for male veterans; programs specifically for women veterans are typically fractured and isolated.
As number of women veterans grows, availability and quality of services available to them must evolve.
Much still needs to be done to ensure that those who have served our country can leverage their experience and leadership expertise into economic opportunities.
Convening Recap

69 participants met, seeking to:

- identify and prioritize strategies to develop and leverage existing services
- stimulate new ideas to provide more targeted outreach to engage, train, and retain women veterans in the STEM workforce

The Convening was comprised of:

- 39% Veteran or Active Duty

4 days, keynote speakers, networking sessions, working groups,

3 panel discussions
Partnerships

Combine VA Services (MH/Physical Health) with Career Readiness (Dress for Success/Hire Heroes) and Tech/STEM Field Education

More men to advocate for women in military
More access to VA services
Women mentors:
- as a career
- as a service
- as a training program

Teach family & friends how to have the "I talk"

Teach family & friends how to have "the" talk

Promote support/services at chambers of commerce, local military orgs, VSO bases, etc.

Help them be seen

The importance of knowing needs & values before job seeking

Purpose & (and meaning) & values

#Purpose

Create checklist and examples for a career switch into STEM jobs

De-mystify pathways to STEM

"FREE" list of support services by county/state and federal

Mentoring and coaching

Normalize "mental health" seeking out support (fear of disability ratings)

Awesome EEO-STEM

NSF

Women Veterans in STEM

The value of networking

If you served, you deserve
Strengthening the Pipeline from Service to STEM Career

**A Couvening on the Future of Women Veterans in STEM**

**Education Development Center Conference**

**March 2-5, 2021**

**Awareness**

- Facilitate ways to broaden the networks of those conducting recruiting activities on behalf of employers
- Link to community colleges, apprenticeship programs
- Utilize unique experiences as a platform to progress and strive
- Finding a group that understands your circumstances and interests

**Better Awareness**

- Education at the point of separation: opportunities that we know are high-value specifically for STEM careers via a resource clearing house
- Certificate opportunities
- Reverse mentoring
- Leadership and problem-solving qualities associated with veterans
- Relatability to the military and vice versa

**Advocate**

- Be your own advocate
- Encourage and explain the use of the tuition assistance program and/or the Post 9-11 GI Bill on how to pursue a degree in a STEM-related field

**Roadmap**

- Develop & distribute effective bias training emphasizing the value of experience
- Professional development & career enhancement opportunities
- Expand opportunities for service members to get experience to prepare for life after service
- Professional organizations
  - Outreach to military installations
  - Outreach to students

**Support**

- Assistance organizations
- Resume writing support
- Certification opportunities
- Professional development opportunities

**Women Veterans in STEM**

**Value Web**
NORMALIZE

- Caregiving + Employment
- Flexible work options and the family benefits
- Dual career planning

HELP IN AVOIDING GETTING STUCK IN ROLES

INCREASE REPRESENTATION (MORE WOMEN, BIPOC, ETC.)

SEEING ROLE MODELS

DIRECT WOMEN INTO EDUCATION TO CONNECT TECHNICAL SKILLS

EMPOWER WOMEN’S VOICES WITH RESOURCES FOR SELF ASSESSMENT AND SUPPORT

MENTORSHIP IS CRITICAL AT ALL LEVELS

NETWORKING AND MENTORING WITH PROFESSIONAL SOCIETIES AND AFFINITY ORGS.

RECOGNIZING AND PROMOTING VSO ROSTERS FOR WOMEN VETS

THE VALUE WEB

WOMEN VETERANS IN STEM
STRENGTHENING the PIPELINE from SERVICE to STEM

A CONVENING ON THE FUTURE OF WOMEN VETERANS IN STEM - EDUCATION DEVELOPMENT CENTER - CONFERENCE - MARCH 2-5, 2021

EDUCATION PATHWAYS

INCORPORATE STEM INTO EARLY, MID & LATE CAREER
TAP EDUCATION

INFORMATION CLEARINGHOUSE
BETTER & MORE COMMUNICATION
RESOURCES/EDUCATION/INFO ON TUITION ASSISTANCE

OUTREACH RESOURCES FOR ON-BASE EDUCATION CENTERS, INFORMATION ON CERTIFICATION PROGRAMS

BRIDGE PROGRAMS TO PREPARE WOMEN VETERANS FOR THE INTEGRATION INTO EDUCATION

CONDUCTED WITH CONTINUOUS ENGAGEMENT WITH RESOURCES

OUTREACH TO EXISTING VETERANS

BETTER EDUCATE FACULTY WITHIN UNIVERSITIES ON VETERAN NEEDS

BETTER EDUCATE VETERANS TO ASSESS QUALITY PROGRAMS THAT WILL YIELD THE OUTCOMES THEY WANT

TEACH VETS TO REFRAME SERVICE TO WHAT IS PROBED/NEEDED FOR CIVILIAN WORKFORCE

CHILDCARE RESOURCES FOR STUDENTS THAT ARE ACCESSIBLE DURING CLASS & STUDY TIME

MENTORSHIP PROGRAMS (WITH INDUSTRY, PROFESSORS, PEERS...)

HAVE CIVILIAN STEM WOMEN MENTOR WOMEN SERVICE MEMBERS

INCORPORATE STEM COURSES INTO MOS TRAINING

PROVIDE CERTIFICATION THAT TRANSFERS TO CIVILIAN SPACE, UNIVERSITY SABBATICAL PROGRAMS

PARED INTERNSHIPS ARE KEY!

TEACH TARGETED NETWORKING THROUGH PROFESSIONAL ORGS

Women Veterans in STEM

the value web
National Center for Women Veterans in STEM
National Center for Women Veterans in STEM

Resource Roundup

Employment

Education

Transition & Other
STEM Employment

Challenges
- “Employers didn’t recognize my MOS as actual work experience.”
- “How does my military experience translate to the civilian workforce?”

National Center for Women Veterans in STEM
- Employers receive technical assistance on recruiting, hiring, and integrating veterans into the workplace
- Women Veterans access coaching on how to translate their military experience to a civilian resume
- Women Veterans access self-assessment tools and career roadmaps

The National Center will connect women Veterans with:

Hire Our Heroes | Talent Bridge for Veterans | Veterans at Work Certificate Program

...just to name a few, what else should we include?
STEM Employment - what resources should women Veterans be connected with?
STEM Education

Challenges
- “I wasn’t sure where to begin my post-service education journey.”
- “I feel like I have to hide my veteran status.”
- “What prerequisites do I need to begin a STEM program?”

National Center for Women Veterans in STEM
- Resources and guidance for women service members and veterans to understand the opportunities and pathways in STEM
- Customized technical assistance to higher education institutions on how to better recruit and retain women veterans, develop mentoring programs, and establish communities of practice

The National Center will connect women Veterans with:

GI Bill | Edith Nourse Rogers STEM Scholarship | VET TEC | One2One Mentorship Program

...just to name a few, what else should we include?
STEM Education - what resources should women Veterans be connected with?
Transition & Other Support

Before the National Center for Women Veterans in STEM

- “Services are disjointed and hard to navigate.”
- “I wasn’t sure where to start”
- “I had to forge my own path to a STEM career”

National Center for Women Veterans in STEM

- Centralized hub of information, resources, and services with specific portal for women service members and veterans
- Existing networking and mentoring organizations that serve veterans are navigable and searchable in a centralized location
- Webinars and tutorials to orient users to the site

The National Center will connect women Veterans with:

TAP | AMVETS | Onward to Opportunity (O2O) | Women Veterans Network (WoVeN) | MilitaryHire

...just to name a few, what else should we include?
Transition - what other resources should women Veterans be connected with?
Actionable Recommendations

- Mentoring: Tapping the Power of Women Veterans
- Expanding Networking Opportunities
- Building Strong Systems to Support Transitions
- Engaging Higher Education and Employers
- Partnering with the Military to Change Culture
Mentoring: Tapping the Power of Women Veterans

- Be a mentor!
- Sponsor **affinity groups for women veterans** and host **networking events** to match with mentors
- Seek **women veterans as advisors** (reverse mentoring) to better understand the unique needs of women veterans and more effectively attract them to and retain them in STEM education and the workforce.
Expanding Networking Opportunities

- Establish a **professional networking alliance** specifically for women veterans to connect with STEM professionals.
- **Waive conference registration fees** for women veterans transitioning from the military.
- **Offer technical assistance to relevant professional networking organizations** regarding the needs of women veterans in STEM.
Building Strong Systems to Support Transitions

- Ensure that transition planning starts long before departure and assists women in identifying and translating the skills and knowledge gained in service to relevant STEM fields

- Professional development and training opportunities, such as apprenticeship or internship opportunities with STEM employers

- Webinars, resources, and support to coach veterans to advocate for themselves to secure employment in the civilian sphere, and build interviewing skills so they are prepared for the experience
Engaging Higher Education and Employers

- **Broaden recruiting networks** to include vocational schools, community colleges, and apprenticeship programs, which may reach more women veterans.

- Learn more about veterans’ experiences by **tapping veteran employees as advisors** to create new engagement and retention practices as well as veteran alumni to serve as mentors to help student veterans transition and excel in higher education.

- Coach post-secondary advisors and human resources professionals on **translating military experience** to civilian language.
Partnering with the Military for Cultural Change

● Ensure that all service members have **equitable access to transition support**, including post-military career planning (pre-transition), support during the transition, and post-transition resources.

● **Create a transition services office that serves all branches**, rather than individual offices for each branch

● **Hire an independent external agency to assess TAP**, with a particular focus on the unique experiences, needs, and challenges of women veterans
Call to Action!

What are some other things you can do?

- Share the report on social media
- Join the Linkedin Group
- Join us! Be part of this collaborative effort to create stronger pathways to STEM for women veterans
Call to Action! What recommendations will you commit to implementing?
Learn More & Share!

@WomenVetsSTEM

LinkedIn: Women Veterans in STEM Convening

WomenVetsSTEM.edc.org
Thank you!