



Veterans Innovation Network (VetIN) Program Center for Complex Particle Systems (COMPASS) (Revised January 30th, 2025) Program Manager: Jeff Raymond, PhD

Some of the most driven and goal-oriented students are prior-enlisted veterans that, as a group, possess leadership skills and professional experience that of their average peers. However, very few prior enlisted students receive four-year degrees from research (R1) universities in STEM disciplines. By way of example, 5% of all full-time US undergraduate students are prior enlisted or enlisted reservists/national guard but at the University of Michigan-Ann Arbor <1% of the student population fall into these groups. Additionally, 18% of US undergraduate students graduate with non-professional and non-preprofessional STEM degrees, compared to 9% in the student veteran population. This means that there exists a small pre-vetted population that could be tapped for our next generation of research and technical innovation leaders, presuming we can reach them and prepare them for careers in research.

	Undergraduate	Undergraduate
	Student Veterans	Non-Veterans
GPA ¹	3.34	2.94
Attainment ²	17%	37%
Non-completion ²	52%	44%
Student population $(\%)^3$	5%	94%
Bachelors awarded $(\%)^2$	1%	99%
STEM major (%) ⁴	9%	18%
Non-professional STEM major $(\%)^4$	4%	12%

Table 1. Student Veteran Undergraduate Statistics

[1] https://studentveterans.org/wp-content/uploads/2020/08/NVEST Factsheets-5.pdf

[2] <u>https://nces.ed.gov/surveys/bps/</u>
[3] https://nces.ed.gov/pubs2020/2020488rev.pdf

[4] <u>https://vetsedsuccess.org/postsecondary-non-completion-among-veterans-contributing-factors-and-implications/</u>

The Veterans Innovation Network (VetIN) program is specifically structured to provide a 360degree development and training environment for prior-enlisted (and enlisted reservists) interested in research careers. This is done for a singular purpose: to capture extant veteran talent and leverage it towards leading our future innovation and research efforts while capitalizing on the unique problem-solving skills and experience that veterans possess.

With this goal in mind, an additional barrier must be addressed; veteran students routinely experience difficulties integrating into university populations, and this even more true at prestigious research universities. COMPASS addresses this problem, while tapping into the extensive leadership experience and innovation enthusiasm of veterans, through our flagship Veteran Innovation Fellowship (VetIF) program and partnerships with PIs to hire Veteran Research Assistants (VetRA).

One target for the VetIF program is to facilitate 100% STEM baccalaureate attainment for VetIF recipients, favorably positioning them to pursue graduate, industry, or public sector roles. The pillars of the VetIF program are (1) year-round financial support through a generous stipend, (2) training through participation in multi-PI research projects during the academic school year, (3) bi-weekly professional coaching sessions, (4) summer research experiences, (5) advocacy with university offices and programs, and (6) support of scholarship, program, and graduate school applications. In the case of summer research experiences, we strive where possible to find basic, basic applied, and applied research internships with our industry partners. The outcome of VetIF will be transformative to the lives of the student veteran participants while promoting new approaches to leadership training. Taken together, VetIF will address key attainment barriers for student veterans while ushering in a new cadre of innovators capable of transferring knowledge generated in the Center for the express purpose of generating solutions for real-world problems. Assessment of VetIF will focus on the engagement, confidence, perception of support, and academic achievements. This will be crafted in coordination with the external evaluator, FERA (Tice), and through consultation and information sharing with our Veterans Advisory Board.

Our program office also partners with Center PIs though our VetRA program, both pre- and postaward, to facilitate the hiring of veteran students at the undergraduate and master's levels as research and administrative assistants. These appointments are semester long, renewable positions that include almost all of the programmatic support provided to VetIF participants. Ultimately, this type of appointment allows for a more flexible and modular modality to capture additional student veteran talent for infusion into the US innovation leadership trainee pipeline.

Our VetIN program also provides workshops and presentations to student veteran groups on all of our participating campuses. Past presentations have included topics like Graduate School Application Strategies for Veterans, STEM Resume Workshops, and Leveraging Your Veteran Status During Job Searches.

Program integration at the Center level includes research in all major thrusts, the ability for fellows to enroll in the Center-developed Particles Course, inclusion in Center organized conferences and meetings, and option for knowledge transfer based on summer industry or defense programs. Major outputs, beyond the generation of future R&D leaders, will include press releases, social media posts, and a white paper demonstrating the outcomes of the program once sufficient multi-year, multi-campus data sets are attained.