Training Initiative for America's Veterans and Wounded Warriors

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"A Veteran to Academia Support Program"

CIPC Critical Infrastructure Protection Center
At Mississippi State University

Three Initiatives at MSU

- An NSF Funded Initiative under the Cyberinfrastructure Training, Education, Advancement, and Mentoring for Our 21st Century Workforce (CI-TEAM) Program Grant number OCI-0753095 (August 2008)
- A Planning Grant for Transitioning America's Veterans to Science, Technology, Engineering and Mathematics (STEM) Academic Programs - NSF Funded Initiative by the Engineering Education and Centers Division Award # EEC-0951441 (2010)
- Implementation of a Pilot Program for Successfully Transitioning Veterans Entering STEM programs at Mississippi State University - NSF Funded Initiative by the Engineering Education and Centers Division (2010)

Existing University Partners

- For Wounded Warrior Digital Forensics Training
  - Mississippi State University (lead)
  - Auburn University
  - Tuskegee University
- For Veterans to STEM programs:
  - Mississippi State University (lead)
  - University of Washington
  - Air Force Institute of Technology
  - San Diego State University
  - North Carolina A&T
  - Texas A&M University
  - New Jersey Institute of Technology (dropping out)
  - National Security Agency (Christine Nickel)
  - OSD (Ms. Christine Smith)

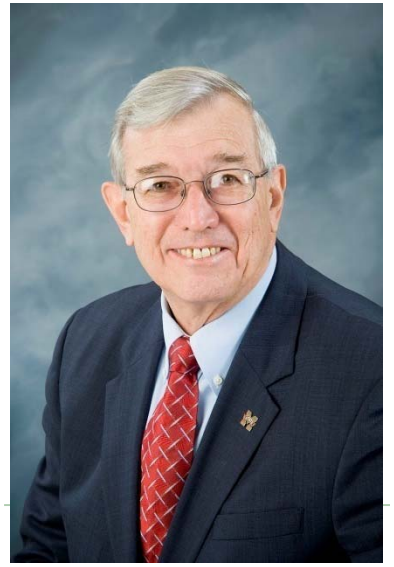
Background on Digital Forensics Project

- Since 2005, MSU has managed a unique and successful Computer Crime and Digital Forensics training program to support state and local law enforcement.
- Through Congressional initiatives and DOJ Grants ~ $10M has been invested to support our Digital Forensics Training and partnership with our Attorney General.
- Funding supports an MSU coordinated Forensics Training Center that trains local and state law enforcement across the US. Provides no cost training for law enforcement officers, prosecutors, and trial judges on current technical issues associated with computer crime. About 4000 trained in 32 states.
- Funds a state of the art integrated Cyber Crime Fusion Center (CCFC) in Jackson MS. FBI, Secret Service, Postal Inspectors, Attorney General's Office, MSU cooperate in a Cyber Crime Fusion Center.
- Funding cannot be used for Wounded Warrior training

NSF Veterans Training Initiative

- Leveraged NFTC funding
- Partnered with Auburn/Tuskegee
- $1M effort for 3 years
- Met with DOD CIAO, Army Wounded Warriors, Navy Safe Harbor, WRAMC, and Veterans Administration – all supportive
- Leveraged for new STEM/VA program later funded by NSF
- WRAMC; Ft Benning, GA, Ft. Knox KY, Ft. Carson CO; Ft Lewis WA, Norfolk Naval Hosp; Huntsville, Jackson, and more being planned….

Staff available



How do we know this works???

- We are building on past success training law enforcement officers → over 4000 to date
- We have an existing curriculum that works and we will modify it to meet veteran's needs
- We know that this vocation is a shortage skill and that the cost of entry is low.
- We have ran several successful classes and have received very positive feedback
- Soldiers are actually more qualified than most of the local police.

Trained to date

- 12 Phase I and II classes taught at WRAMC
- One Phase I and II class taught at Norfolk Naval Hosp
- Two Phase I and II classes at Jackson MS, VA Hosp
- Two Phase I and II classes at Fort Carson with Auburn
- Two Phase I and II classes at Camp Murray, WA
- Two Phase I and II classes at Ft. Lewis, WA
- Three Phase III classes at WRAMC
- Two Phase I and II classes at Ft. Sam Houston in January
- Phase III class taught at Ft. Lewis in December 2010
- Phase III class taught at Ft. Sam Houston in February 2011
- Total trained so far is about 400
- Auburn has trained at Ft. Benning, Redstone Arsenal, and Ft. Knox

Veteran Support structure at MSU

Very Good – but can be improved…

The Center for America's Veterans

- The university's G.V. "Sonny" Montgomery Center for America's Veterans was established by President Robert H. "Doc" Foglesong to provide higher education opportunities to veterans through programs and services unavailable from other institutions. The center's goal is to recruit veterans and to provide them with counseling and guidance, academic advice, and mentorship, among many other benefits.
- http://www.veterans.msstate.edu/mission/
- A military living learning community in Hathorn hall. Designed for veterans that will help them transition from being active duty and recent deployment to a college academic setting.

Functions of Veteran Center

- Academic and program advocacy
- Career transition assistance
- Computer Self-help Center
- G.I. Bill, tuition assistance and vocational rehabilitation benefits counseling and assistance
- Student Veteran Association
- Student Veteran Support Group
- Veteran Work Study Program
- Does not provide academic guidance/advice
- Provides workshops for faculty and staff

Our overall objective with the STEM program

- We desire to encourage and assist the veteran population in entering STEM fields of study (Science, Technology, Engineering, and Mathematics) through a national, geographically distributed, consortium of universities, community colleges, and industrial partners working together to provide a clear path for veterans desiring to re-enter academia and focus their study in STEM fields of study.

Things we know…

- 23.4M living veterans used VA educational benefits in FY08 and some 2.1M of today's veterans are eligible for the "new" GI bill
- Many military occupations fall into the science and technology areas but veterans' experience in these jobs does not always translate into a desire to pursue STEM fields of study or related vocations
- Less than 1% of young veterans work in the information and communication industry 24 months after they exit the military. However, approximately 35% of enlisted members serve in electronics, communications, or other technical fields
- Should be attractive and employable by industry

Veteran Student Assumptions…

- Will come with 36 months support
- Majority expected to pursue BS degree – smaller numbers for associate degrees or graduate degrees
- Maturity level and work ethic will be above normal
- Many will have a spouse and/or children
- A diverse population

Issues Facing Veterans

- Adjusting to college life
  - Much less structure than in the military
  - Some are dealing with psychological/emotional issues from combat
  - Older and more mature than typical college student
  - May lack "age-appropriate" activities
- Lack of a "Buddy" or mentor in school
  - Buddies are common in the military
  - Not assigned and hard to find in college
  - Buddy provides support

Dealing with Veteran Status

- Some students are willing to be recognized as veterans, others are not (professors need to know the difference)
- Other students may be uneasy around veterans
  - Experience may pose a threat in the classroom
  - May feel like these students are different in some way
- Professors should ask veteran students about their background and career objectives.

Dealing with Veteran Students

- Some issues with veteran students may not manifest themselves until they are several months into college (e.g. PTSD)
- Faculty may mis-interpret symptoms
- Faculty may need training
- Classroom behaviors may differ from typical students
  - Standing in the rear of the classroom
- Support facilities need to be aware of issues facing veterans

The first Grant…

- An 18-month effort was funded to put a plan together and to submit a phase II proposal to implement
- Recently awarded the follow-on implementation grant to support the implementation of STEM transition bridge programs
- We anticipate most of the consortium formed for the planning grant to be the team for Phase II
- Need a strong industrial collaborative group (COOP/hiring potential)
- Need DOD support and data

Phase I Tasks

- Task 1-1 Consortium Formation
- Task 1-2 Demographic Data Acquisition
- Task 1-3 Formation of Industrial Council
- Task 1-4 Curricula Design
- Task 1-5 Pilot Programs
- Task 1-6 Final Report

Phase II Tasks

- Task 1-1 Curricula Design
- Task 1-2 Determination of Cohorts
- Task 1-3 Transition Classes
- Task 1-4 Gather experience data
- Task 1-5 Modify program for second year
- Task 1-6 Involve industrial representation for intern/coop hiring
- Task 1-7 Final Report

Demographic Data needed

- Numbers of military projected to exit the service (by service component) each year for the next 5 years.
- Of the military exiting - how many are expected to return to academia.
- Educational background of those projected to exit (HS diploma, BS degree, MS degree, PhD)
- How many are male, female
- How many are Caucasian, African/American, Asian, Other
- Military training data - how many have been trained in technical areas versus non technical.
- We are looking for any documents that might have an academic credit equivalency for military schooling. Not sure such a mapping exists.
- In what State is the home of record for those leaving the service (aggregate numbers - basically, we are assuming that most will return to schools located near their home state).
- Break out of regular forces, national guard, and reserves that are leaving.

Industrial Council

- Need to be senior individuals from organizations with substantial means
- Willing to assist us with advice and assist the veteran with potential employment
- Purpose: guidance, hiring, cooperative degree involvement, internships, mentoring, …
- Interest in promoting STEM programs
- Examples: Northrop Grumman, Cargill, Lockheed Martin Corporation, Booze Allen Hamilton, Computer Science Corporation, IBM, Microsoft, and Cisco

Curricula Design objectives

- What pilot curricula is needed
- What assessment tools
- What is the length of the program
- How many credits should be awarded
- Accommodation of disabled students
- Do we need articulation agreements among participating institutions
- Other …

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