HOW MILITARY SERVICE MAY AFFECT STUDENT VETERAN PERSISTENCE

CCCCO VETERANS SUMMIT – 12/3/14

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AGENDA

• Problem, purpose, and research questions
• The Literature
• Methodology
• Findings
• Recommendations
PROBLEM

• Dearth of quantitative research on veterans persistence in higher education (Barnhart, 2011; DiRamio & Jarvis, 2011)

• “The IPEDS data collection does not currently capture information on veterans, military service members, or services offered to this student population.” (Department of Education’s Committee on Measures of Student Success, Draft Report, November 15, 2011)
PROBLEM

- CCC/VA GI Bill Beneficiaries

<table>
<thead>
<tr>
<th>Year</th>
<th>VA Beneficiaries</th>
<th>CCC Beneficiaries</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>16,193</td>
<td>26,200</td>
<td>10,007 (38%)</td>
</tr>
<tr>
<td>2008-09</td>
<td>17,244</td>
<td>26,272</td>
<td>9,028 (34%)</td>
</tr>
<tr>
<td>2009-10</td>
<td>22,059</td>
<td>36,896</td>
<td>14,837 (40%)</td>
</tr>
<tr>
<td>2010-11</td>
<td>31,614</td>
<td>44,731</td>
<td>13,117 (29%)</td>
</tr>
</tbody>
</table>

- Qualitative research shows*:
  - Transitional issues stemming from military service
  - Mental health issues
  - Adult or nontraditional student attributes

*Ackerman, R., DiRamio, D., & Mitchell, R., 2009; Persky & Oliver, 2011; DiRamio & Jarvis, 2011; Bamhart, 2011; Rumann & Hamrick, 2009
PURPOSE OF STUDY

• Answer: How does military service affect veterans in higher education?

• Conduct quantitative research from primary source data regarding student veteran persistence

• Add to scant body of literature
RESEARCH QUESTIONS

1. How do background variables, academic integration, social integration, environmental variables, psychological outcomes, and military service perspective relate to student veteran persistence?

2. Is there any difference in the levels of persistence between combat and noncombat student veterans?

3. Does a veteran's military service (Army, Air Force, Navy, Coast Guard, and Marine) relate to his/her ability to persist?

4. Is there any variation in the levels of persistence between male and female student veterans?
CONCEPTUAL FRAMEWORK

• **Bean and Metzner (1985) Nontraditional Student Attrition Model**
  - Environmental Variables and Psychological Outcomes
  - Social Integration

• **Shay (2011) Moral Injury and Leadership Malpractice trauma**

• **Bean and Eaton (2001) Psychological theories related to student retention**
  - Value Congruence
  - Self-Efficacy (Bandura, 1977)
  - Locus of Control
## MODIFIED CONSTRUCT

<table>
<thead>
<tr>
<th>Background Variables</th>
<th>Academic Integration</th>
<th>Social Integration</th>
<th>Environmental Variables</th>
<th>Psychological Outcomes</th>
<th>Military Service Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS GPA</td>
<td>Hours of class prep</td>
<td>Hours of campus activities</td>
<td>Use of GI Bill</td>
<td>Degree utility</td>
<td>Unit support</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td>Degree affordability</td>
<td></td>
<td>Leader support</td>
</tr>
<tr>
<td>SES</td>
<td></td>
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<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MIL GPA</td>
<td>Ease of getting classes</td>
<td>Out of class contact with instructor</td>
<td>Outside encouragement</td>
<td>Educational satisfaction</td>
<td>Respected as a veteran</td>
</tr>
<tr>
<td>Veteran Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>Hours of out-of-class discussions</td>
<td>Out of class contact with classmates</td>
<td>Hours of work</td>
<td>Importance of a 4-year degree</td>
<td>Overall military experience</td>
</tr>
<tr>
<td>Student status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Missed classes</td>
<td></td>
<td></td>
<td></td>
<td>Benefit of service as a student</td>
</tr>
<tr>
<td></td>
<td>Academic advising satisfaction</td>
<td></td>
<td></td>
<td></td>
<td>I can talk about my experience</td>
</tr>
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</tr>
</tbody>
</table>
LITERATURE

• **Student Attrition and Retention Models**
  
  • Spady (1970, 1971)
    
    • Social and academic integration found through normative congruence and friendship
  
  • Tinto (1975, 1993)
    
    • Assimilation of freshman students; rites of passage (all traditional student research)
  
  • Bean and Metzner (1985, 1987)
    
    • Social integration is less important than external factors for nontraditional students
  
  • Pascarella and Terenzini (1991)
    
    • Positive interaction with faculty is a key factor in student success
LITERATURE

• **Veterans Studies**
  
  • Barnhart (2011) – Psychological outcomes are significant to student veteran persistence
  
  • Tinto Model for Student Veterans (DiRamio, 2011) – tailored considerations for veterans
  
  • Qualitative studies (DiRamio, Ackerman, & Mitchell, 2009; Rumann, 2011, Persky & Oliver, 2009) – student veterans may need assistance in higher education
  
  • Healthcare studies (Hoge, et al., Tanielian, Barry, Shay) – combat veterans may experience mental health challenges
  
  • ...these challenges may impact educational attainment (Card, 1987; Teachman, 2005)
METHODOLOGY

• Non-experimental, survey design
• Bean & Metzner (1985) construct and theory

**Dependent variables**
• Intent to Persist
• College GPA
• Semesters Attended

**Independent Variables**
• Background Variables
• Academic Integration
• Social Integration
• Environmental Variables
• Psychological Outcomes
• Military Service Perspective
DATA ANALYSIS

1. How do background variables, academic integration, social integration, environmental variables, psychological outcomes, and military service perspective relate to student veteran persistence?
   - Multiple, simple, and logistic regression analysis
   - Correlational analysis

2. Is there any difference in the levels of persistence between combat and noncombat student veterans?
   - Independent sample t-test

3. Does a veteran's military service (Army, Air Force, Navy, Coast Guard, and Marine) relate to his/her ability to persist?
   - Analysis of Variance

4. Is there any variation in the levels of persistence between male and female student veterans?
   - Independent sample t-test
LIMITATIONS

- **Reliability**
  - Low internal consistency; low R-squared in many of the models - reducing the strength of predictive findings (.08 - .15)
  - F and t statistics represent relational significance and strong reliability of models

- **Validity**
  - Content validity checked during pilot survey
  - “Credit hours completed” - invalid questions based on wide variances in responses

- **Marital status, academic majors** - not addressed

- **Self-reported information is subject to response error**
### SITES

**Population:**
- Three Region Eight CCCs
- Veterans, active duty, National Guard, Reserve

<table>
<thead>
<tr>
<th></th>
<th>Site A</th>
<th>Site B</th>
<th>Site C</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male Veterans</td>
<td>477</td>
<td>298</td>
<td>412</td>
<td>1187</td>
</tr>
<tr>
<td>Female Veterans</td>
<td>60</td>
<td>47</td>
<td>60</td>
<td>167</td>
</tr>
<tr>
<td>Total Veterans</td>
<td>537</td>
<td>345</td>
<td>472</td>
<td>1354</td>
</tr>
<tr>
<td>Survey Responses</td>
<td>81</td>
<td>90</td>
<td>90</td>
<td>261</td>
</tr>
<tr>
<td>Response Rate</td>
<td>15%</td>
<td>26%</td>
<td>19%</td>
<td>19.3%</td>
</tr>
</tbody>
</table>
# DESCRIPTIVE STATISTICS

<table>
<thead>
<tr>
<th>Background Variable</th>
<th>% Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>34 (mean)</td>
</tr>
<tr>
<td><strong>Veteran</strong></td>
<td>86%</td>
</tr>
<tr>
<td><strong>Reservist</strong></td>
<td>8%</td>
</tr>
<tr>
<td><strong>National Guard</strong></td>
<td>2%</td>
</tr>
<tr>
<td><strong>Active Duty</strong></td>
<td>1%</td>
</tr>
<tr>
<td><strong>GI Bill Recipient</strong></td>
<td>84%</td>
</tr>
<tr>
<td><strong>VA Healthcare Recipient</strong></td>
<td>50%</td>
</tr>
<tr>
<td><strong>First Generation Student</strong></td>
<td>41%</td>
</tr>
<tr>
<td><strong>Combat/ Noncombat</strong></td>
<td>51%/ 48%</td>
</tr>
<tr>
<td><strong>Male/ Female</strong></td>
<td>82%/ 16%</td>
</tr>
</tbody>
</table>
## DESCRIPTIVE STATISTICS

<table>
<thead>
<tr>
<th>Gender/ Mean GPA</th>
<th>HS GPA</th>
<th>Military GPA</th>
<th>College GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>3.10 (SD = .731)</td>
<td>3.54 (SD = .706)</td>
<td>3.20 (SD = .659)</td>
</tr>
<tr>
<td>Male</td>
<td>2.58 (SD = .620)</td>
<td>3.55 (SD = .710)</td>
<td>3.18 (SD = .641)</td>
</tr>
</tbody>
</table>

- Leveling out of GPAs between male and females overtime
Q1 FINDINGS (VARIABLES)  
BACKGROUND

• HS GPA is predictive and significantly related to College GPA; Military GPA has a stronger association with College GPA than HS GPA

• 41% are first generation college students; parents have HS diploma or less - 68% reported parents with no degree

• National Guardsmen report a 24% greater desire to persist than their veteran peers; Reservists report a 20% greater desire to persist than their peers
Q1 FINDINGS (VARIABLES)
ACADEMIC INTEGRATION

- **Academic integration** is predictive of College GPA as a significant and positive association.


- Bean & Metzner (1985) = Socialization processes are not the same for nontraditional students.
Q1 FINDINGS (VARIABLES)
ACADEMIC INTEGRATION

- Academic integration and environmental variables are significantly associated; social integration is less significantly correlated with academic integration.

- Veterans who missed class “often” or “very often” had lower GPAs than those who “never” or “rarely” missed class.

- The probability of a student persisting was greater if registering for classes was “easy” or “very easy”.
Q1 FINDINGS
SOCIAL INTEGRATION

• Bean and Metzner (1985) = “...social variables from the outside environment are expected to be of greater importance than college social integration variables...” (p. 530).

• Student veterans who spent 1.75 mean hours with their instructors had higher GPAs than their peers.

• Balance may be key to student veteran success.
Q1 FINDINGS (VARIABLES)
ENVIRONMENTAL VARIABLES

• 64% reported that they intend to transfer; 84% are using GI Bill or VBA benefits

• The Post-9/11 GI Bill provides 36 months of tuition and housing allowance

• If 27 months (six semesters) is spent at a community college, a veteran becomes at risk for running out of their GI Bill benefits
Q1 FINDINGS (VARIABLES)

SEMESTER ATTENDED

- 36% (n = 59) of the transferring student population (n = 166) are at risk of running out of benefits before attaining a four-year degree.

- 28% feel confident they will be able to pay for college; 46% are not confident.

- For every additional semester attended at a community college, GPA dropped.

- Cabrera, Nora & Castaneda (1992) = some form of financial aid improved conditions for social integration, academic integration, and potentially GPA.
Q1 FINDINGS
MILITARY PERSPECTIVE

- Military service perspective is predictive of intent to persist; there is a significant positive association between one’s intent to persist and their perspective of military service.

- Card, J. (1987) = Vietnam combat veterans have a slightly lower level of educational attainment.


- Teachman (2005, 2007) = Service-related multivariates affect veterans and reduce levels of education.
Q1 FINDINGS
MILITARY PERSPECTIVE

- Veterans unhappy with their leader have, on average, a lower GPA than those that expressed indifference toward their military leaders.

- Shay (2011) “When a leader betrays ‘what’s right,’ he or she demotivates vast swaths of troops...” (p.183). “When the capacity for trust is destroyed, its place is filled by the active expectancy of harm, exploitation, or humiliation” (p. 184).

- The student veteran who felt his/her efforts were valued to the military are more likely to continue their education than the person who feels that their efforts were marginalized.
• **Combat veterans scored higher on responses to questions related to degree utility, educational satisfaction, views of importance of degree, goal commitment than their noncombat counterparts**

• Barry, Whiteman, & MacDermid Wadsworth (2012)
  - **PTS symptoms are unrelated to intrinsic motivation and educational self-efficacy. Although lower cognition and intelligence quotient are associated with PTS symptoms, findings also showed there were positive associations between veterans with PTS symptoms and extrinsic motivations.**
Q2 FINDINGS (COMBAT STATUS)

- Veterans who served in combat have a more positive perspective of their military service than those who did not serve in combat

  - Although lifelong negative consequences of combat exposure were observed, desirable effects from their stressful experiences promoted positive developmental outcomes such as maturation, enhanced coping skills and self-esteem, and broadening of one’s perspective.
Q3 FINDINGS (SERVICE)

• There were no significant associations between a student veterans military service branch (Army, Air Force, Navy, Marine, Coast Guard) and their College GPA, Semesters Attended, or their Intent to Persist.
Q4 FINDINGS (GENDER) SEMESTER ATTENDED

- Male veterans expressed a greater intent to persist in higher education than females.

- Female veterans reported higher HS GPAs than male veterans.

- No other significant associations were found regarding College GPA and Semesters Attended.
RECOMMENDATIONS

• Policy
  • Awareness
    • Utilize existing policies to support veterans
    • Create an intersegmental group; review state and federal policies to ID gaps and obstacles
  • Accountability
    • Amend and extend policies creating obstacles
      • Assembly Bill (AB) 2133 - priority registration for only four years
    • Draft a transfer policy to prevent depletion of GI Bill resources
      • Title 5, California Code of Regulations (CCR) § 40805.1 which allows student veterans attending the CCC to transfer to CSU campuses without the typically required 60 units
RECOMMENDATIONS

• **Practice**
  • **Awareness**
    • Implement system level awareness programs such as the VET NET Ally program
  • **Accountability**
    • Track veterans at the institutional level
    • Accountability Reporting for the Community Colleges (ARCC) program

• **Research**
  • Path model development; associate causes to relations
  • Longitudinal persistence studies
  • Psychosocial investigations and the role of Post-traumatic Stress in student success
  • Female persistence and the female veteran experience
The first “wave” of research on this topic, conducted over the past five years or so since 2007, is coming to a close. During the second wave over the next five years from 2012 to 2017, research ideas grounded in existing theory and previously published empirical studies from the general higher education literature, including the examples presented in this volume, are a logical place to begin.

David DiRamio~

“Veterans in Higher Education: When Johnny and Janey Come Marching to Campus”
QUESTIONS?