

Student Veterans in College: Do They Perform Differently from Their Civilian Peers?

Young Kim, Nathan Durdella, and Caroline Durdella
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Context

- ▶ **Recent and Ongoing Military Operations**
 - ▶ OEF and OIF
- ▶ **Changes to Educational Benefits**
 - ▶ Expanded benefits in Post 9-11 GI Bill
- ▶ **Need to Support Retraining of Veterans**
 - ▶ Discharged veterans, combat wounded veterans
- ▶ **Current Period of Fiscal Contraction**
 - ▶ Fewer courses, campus services



Background

▶ Background Characteristics

- ▶ More likely to be male, older, African American (NCES, 2009)
- ▶ Service disrupts life course (Brooks, 2010; MacLean, 2005)

▶ College Experiences

- ▶ Enroll at greater rates in community colleges and Associate degree programs, while equally enroll FT/PT basis (NCES, 2009)
- ▶ Major in engineering, computer science, business (Adelman, 2008)
- ▶ Less engaged but equally satisfied (Moltz, 2010)

▶ Achievement and Engagement Outcomes

- ▶ Need for more research on the characteristics and conditions that can help explain veteran student achievement and engagement in college



Research Design

▶ Research Purpose

- ▶ To examine differences in the levels of college outcomes between veteran and non-veteran undergraduate students
- ▶ To investigate unique patterns in predictors of success for undergraduate student veterans

▶ Research Questions

- ▶ What are the patterns of college student outcomes for veteran college students? Do veteran students tend to have lower levels of college outcomes than their civilian peers?
- ▶ If so, what are the student characteristics and conditions that contribute to such patterns?

▶ Research Design

- ▶ Nonexperimental survey research design
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Data Source and Sample

▶ Data Source

- ▶ 2008 University of California Undergraduate Experience Survey (UCUES) and student records data from the University of California (UC) system's office.
 - ▶ UCUES is a longitudinal survey of UC undergraduate students administered by the UC Berkeley Office of Student Research

▶ Sample

- ▶ 21,179 records
 - ▶ Less than 1% (.08%) reported being a veteran (n=163)
 - ▶ Overall, sample is traditional age (68% 18 or younger) and ethnically diverse (34% Asian, American, 33% White, 15% Latino, 3% African American)



Variables

- ▶ **Outcome Variables**

- ▶ College Grade Point Average (GPA)
- ▶ Sense of Belonging

- ▶ **Predictor Variables**

- ▶ Three blocks
 - ▶ Student demographics
 - ▶ Other input characteristics
 - ▶ College experiences



Predictor Variables in Detail

- ▶ **Student demographic characteristics**

- ▶ Gender

- ▶ Ethnicity

- ▶ Age

- ▶ Income

- ▶ Veteran status

- ▶ Veteran, veteran/active duty military, veteran/reserve or national guard

- ▶ **Other student input characteristics**

- ▶ Student level

- ▶ Freshman, sophomore, junior, senior

- ▶ Transfer status

- ▶ Freshman applicant or transfer applicant



More Predictor Variables in Detail

▶ College experiences

▶ Academic participation and interaction

- ▶ Contributed to a class discussion, interacted with faculty during class

▶ Collaborative work

- ▶ Sought academic help from instructor or tutor, worked on class projects

▶ Extracurricular engagement

- ▶ Participating in student clubs or organizations, socializing with friends

▶ Time employed

- ▶ Paid employment, work on campus, work related to academics

▶ Campus climate for diversity

- ▶ Students are respected here regardless of their race or ethnicity

▶ Academic time

- ▶ Attending classes, studying and other academic activities
-



Analysis

- ▶ **Descriptive analysis**
 - ▶ Distributions, measure of central tendency, dispersion
- ▶ **Blocked multiple regression**
 - ▶ Two models (one for each DV)
 - ▶ Use of full student sample to examine how being a veteran student affects college outcomes



Results: Descriptive Statistics

Mean and Standard Deviations of Outcome, Demographic, and College Experience Variables by Non-Veteran and Veteran Students

Variables	Non-Veteran (n = 19,845)	Veteran (n = 153)
College GPA	3.11 (.57)	3.03 (.56)
Sense of Belonging	5.04 (1.90)	4.96 (2.17)
Age	19.21 (3.32)	26.98 (6.85)
Academic Participation and Interaction	4.72 (1.84)	5.59 (2.03)
Collaborative Work	4.90 (1.95)	4.96 (2.30)
Campus Climate for Diversity	5.30 (1.81)	5.20 (2.01)
Extracurricular Engagement	4.90 (1.76)	4.14 (1.71)
Time Employed	4.29 (1.58)	4.54 (1.61)
Academic Time	5.09 (1.91)	5.38 (1.99)



Results: Being a Veteran Student and Its Impact on College Outcomes

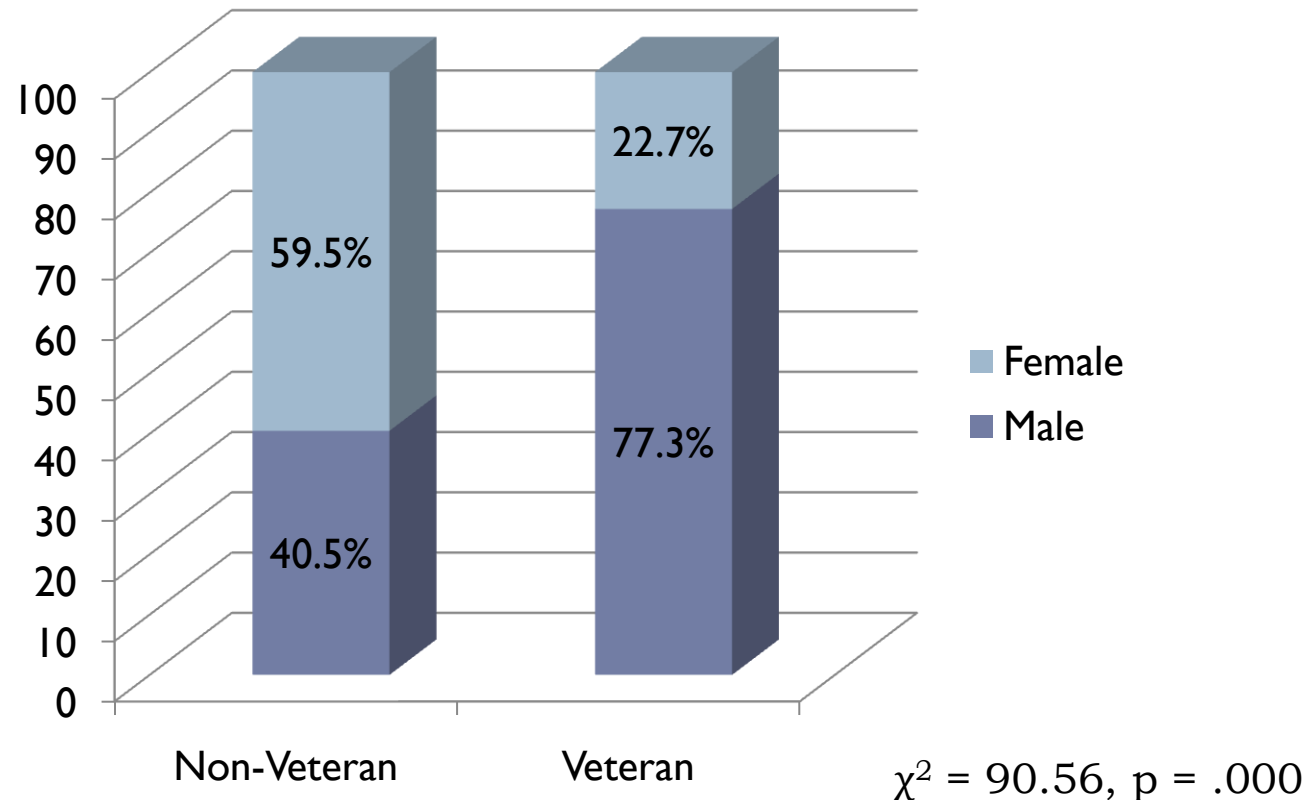
Variables That Predict College GPA and Sense of Belonging (N = 17,405)

Variables	College GPA	Sense of Belonging
<i>Student Demographics</i>		
Gender: Female	.04**	.00
Race: African American	-.09**	-.02*
Race: Latino	-.19**	-.02**
Race: Asian American	-.10**	-.15**
Age	.04**	.06**
Family Annual Income	.14**	.06**
Veteran	-.02**	-.02*
<i>Input Characteristics</i>		
Freshman	.29**	.10**
Student Level	.29**	.04**
<i>College Experience</i>		
Academic Participation and Interaction	.12**	.13**
Collaborative Work	.00	.13**
Campus Climate for Diversity	-.01	.32**
Extracurricular Engagement	-.12**	.07**
Time Employed	-.05**	-.03**
Academic Time	.08**	.00
	R ² = .13	R ² = .23

*p < .05, **p < .01

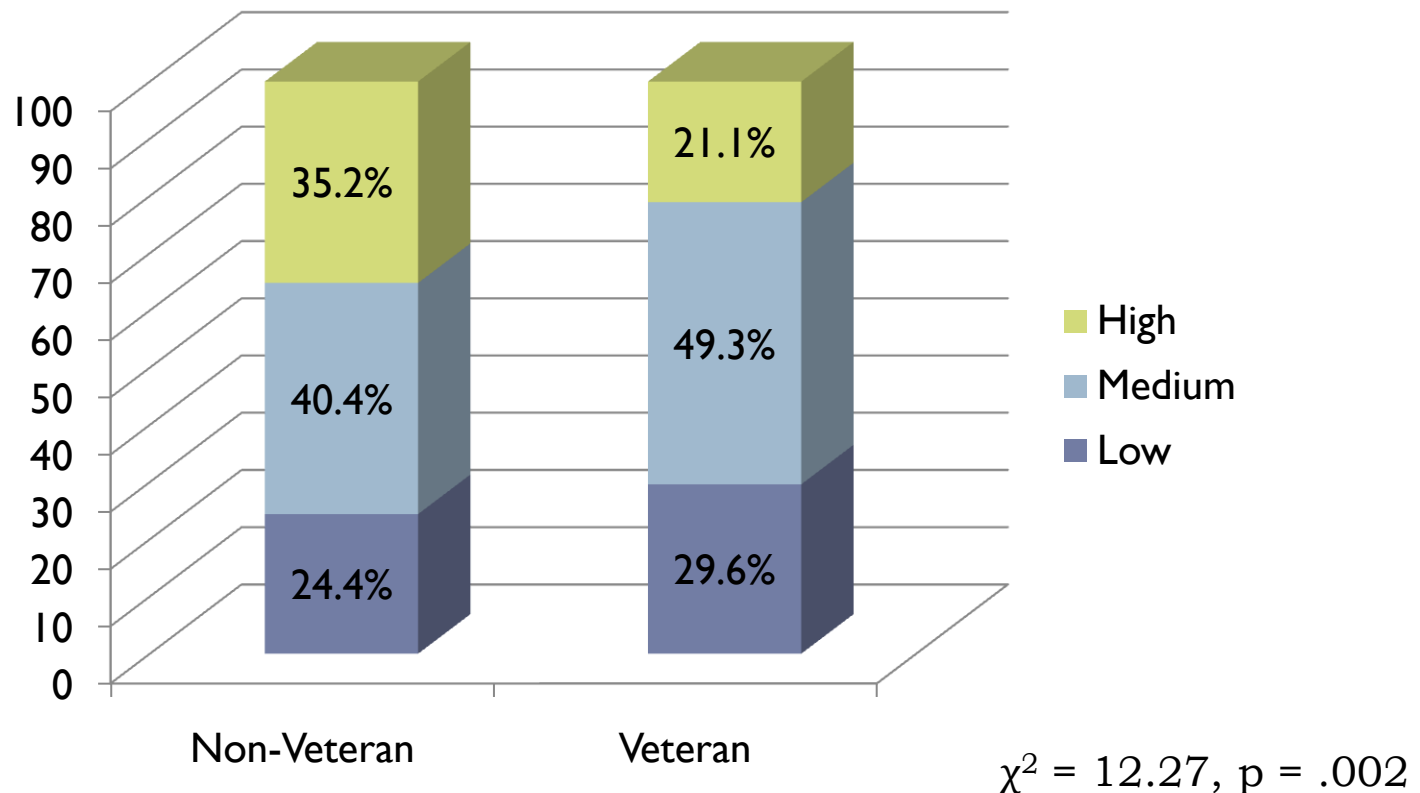
Results: Characteristics and Conditions that Contribute to Veteran Effect

- ▶ Gender: Female
- ▶ Positive Effect on College GPA



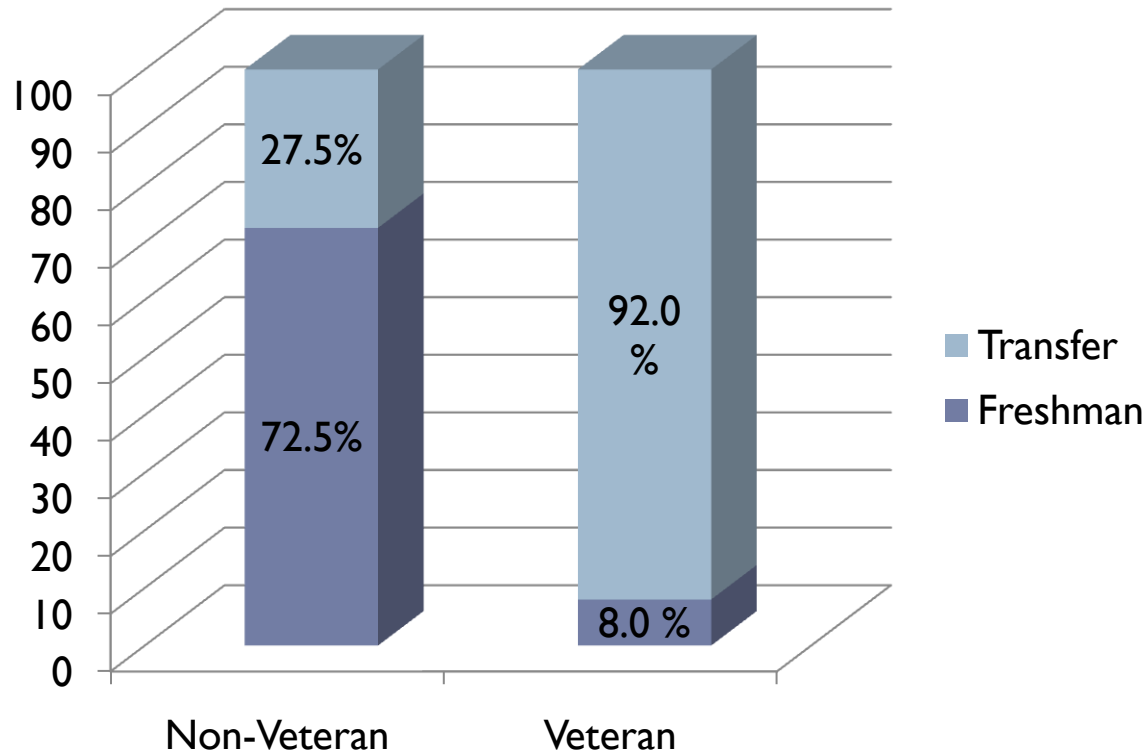
Results: Characteristics and Conditions that Contribute to Veteran Effect

- ▶ Family Annual Income
- ▶ Positive Effect on GPA and Sense of Belonging



Results: Characteristics and Conditions that Contribute to Veteran Effect

- ▶ Being a Freshmen
- ▶ Positive Effect on GPA and Sense of Belonging



$\chi^2 = 334.01, p = .000$

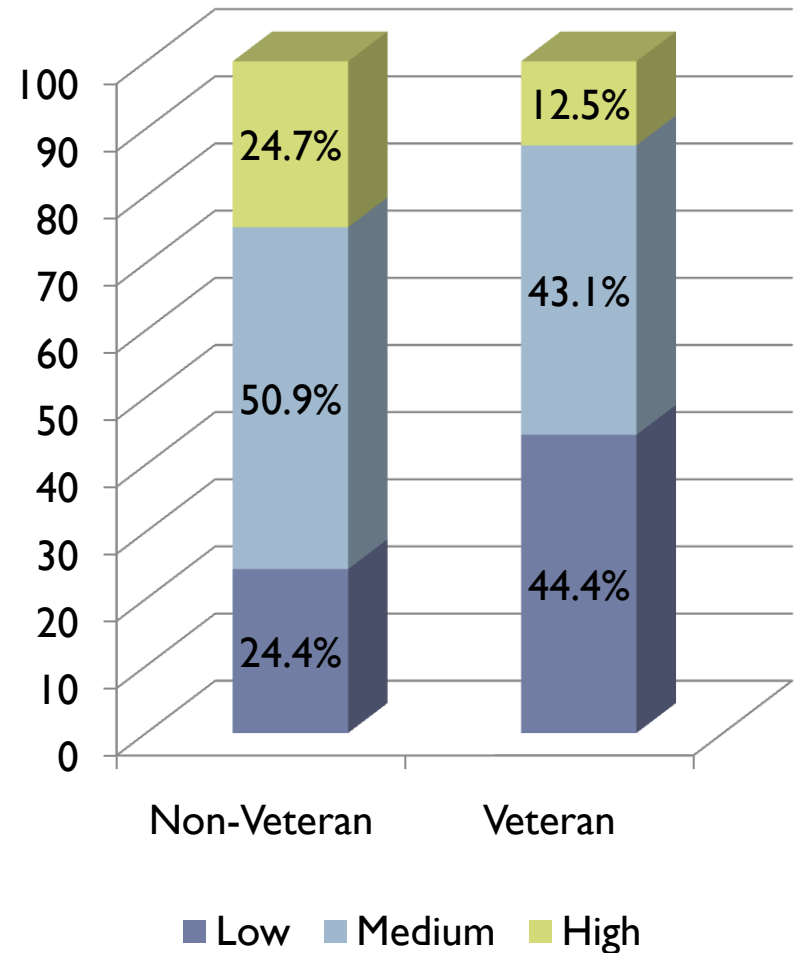


Results: Characteristics and Conditions that Contribute to Veteran Effect

▶ Extracurricular Engagement ($\alpha = .72$)

- ▶ Participating in student clubs or organizations
- ▶ Socializing with friends
- ▶ Partying
- ▶ Participating in physical exercise, or recreational sports
- ▶ Pursuing a recreational or creative interest
- ▶ Attending movies, concerts, or sports
- ▶ Using computer for non-academic purpose
- ▶ Watching TV

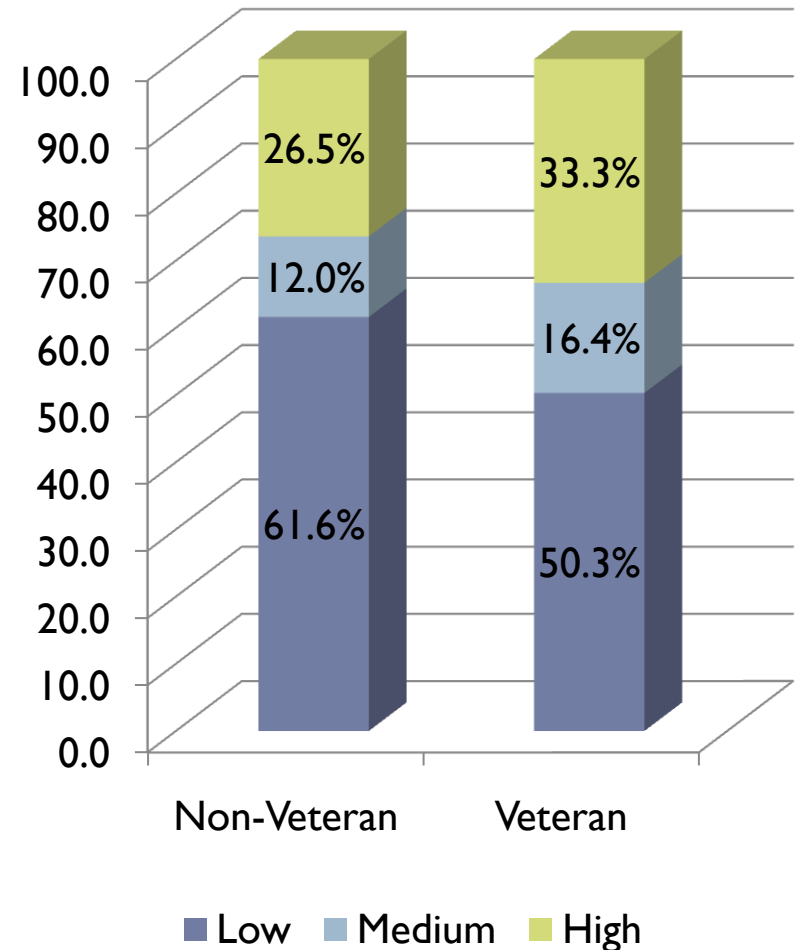
▶ Positive Effect on Sense of Belonging



$\chi^2 = 37.16, p = .000$

Results: Characteristics and Conditions that Contribute to Veteran Effect

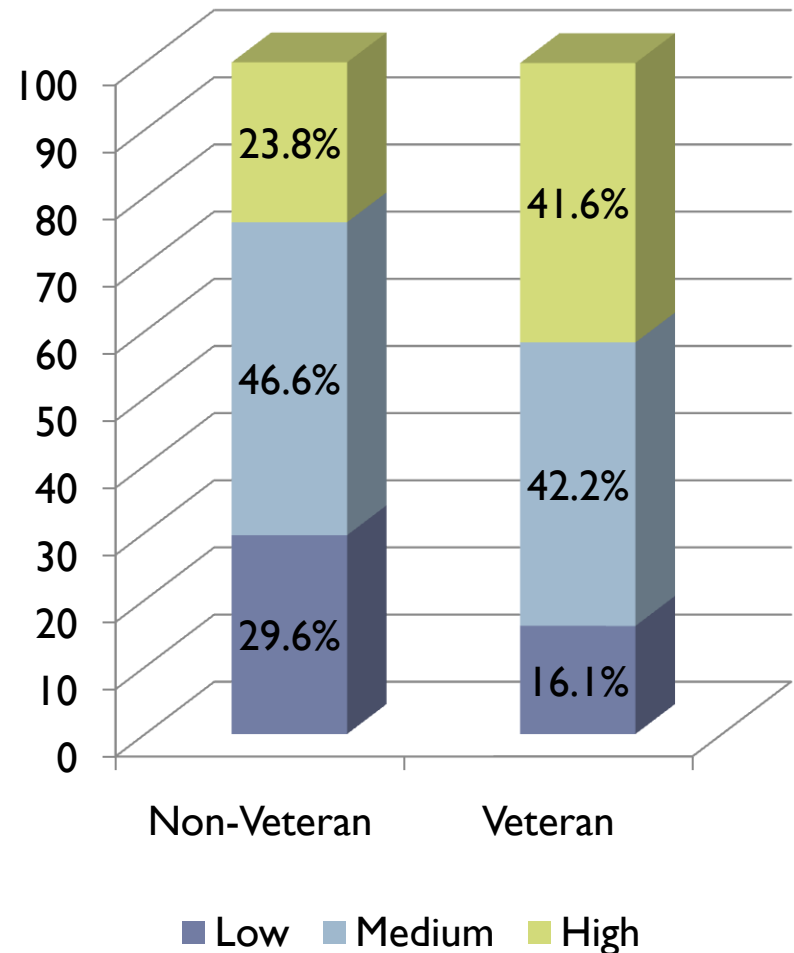
- ▶ Time Employed ($\alpha = .67$)
 - ▶ Paid employment
 - ▶ Of the total hours spent working for pay, how many hours did you work on campus?
 - ▶ Of the total hours spent working for pay, how many hours were related to your academic interest?
- ▶ Negative Effect on GPA and Sense of Belonging



$\chi^2 = 8.58, p = .014$

Results: Conditions that Need Further Investigation

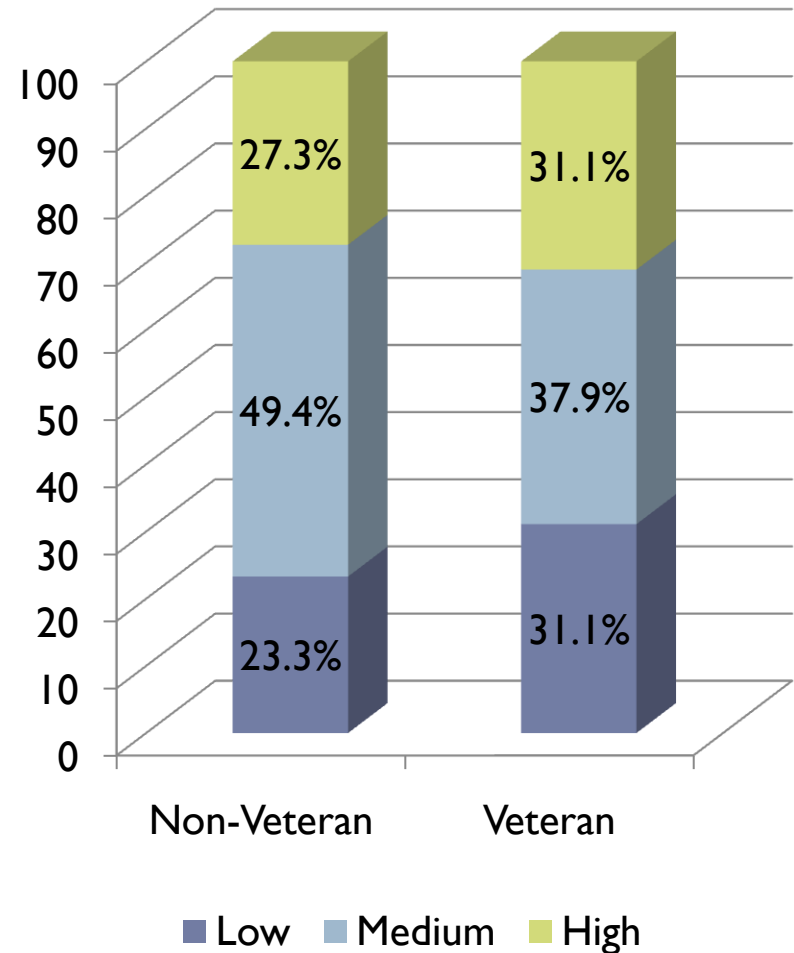
- ▶ Academic Participation and Interaction ($\alpha = .90$)
 - ▶ Contributed to a class discussion
 - ▶ Brought up ideas from different courses
 - ▶ Asked an insightful question in class
 - ▶ Did more work than was required
 - ▶ Chose challenging courses
 - ▶ Made a class presentation
 - ▶ Had a class in which the professor knew or learned your name
 - ▶ Taken a research-oriented seminar with faculty
 - ▶ Communicated with faculty member by email or in person
 - ▶ Talked with instructor outside of class
 - ▶ Interacted with faculty during class
 - ▶ Worked with faculty on an active other than course work
- ▶ Positive Effect on GPA and Sense of Belonging



$$\chi^2 = 31.71, p = .000$$

Results: Conditions that Need Further Investigation

- ▶ Collaborative Work ($\alpha = .70$)
 - ▶ Sought academic help from instructor or tutor
 - ▶ Worked on class projects
 - ▶ Helped a classmate better understand the course material when studying together
 - ▶ Made a class presentation
- ▶ Positive Effect on Sense of Belonging



$\chi^2 = 9.25, p = .010$

Summary and Discussion

- ▶ **Effect of Being a Veteran Student on College Outcomes**
 - ▶ Significantly negative effect on college GPA and sense of belonging
- ▶ **Origins of the Negative Effect of Being a Veteran Student**
 - ▶ Student characteristics: Male, transfer, lower level of family income
 - ▶ College experience: lower level of extracurricular engagement, higher level of work engagement
- ▶ **Predictors for Further Investigation**
 - ▶ Veteran students' higher level of academic participation and interaction, higher level of collaborative work
 - ▶ Conditional effects, quality of engagement



Thank You for Your Participation!

Contact Information:

Young Kim: ykkim@apu.edu

Nathan Durdella: nathan.durdella@csun.edu

Caroline Durdella: durdella@hotmail.com