Community-Based Learning and Academic Performance

Daniel Jones-White, Krista Soria, and Ronald Huesman, Jr.

University of Minnesota
Presentation Outline

- Literature Review
- SERU Survey
- Methods
- Findings
- Implications
Theoretical Framework of Service

• Dewey’s experiential learning (1916; 1938)
  – Linking education to experience
  – Democratic community
  – Social service
  – Reflective inquiry
  – Education for social transformation

• Kolb’s experiential learning (1984)
  – Learning occurs in stages:
    • Concrete
    • Reflective observation
    • Abstract conceptualization
    • Active experimentation
### Typology of Community-based Learning Activities

<table>
<thead>
<tr>
<th>Community-Based Learning Option</th>
<th>Out-of-Class Activities</th>
<th>Volunteering</th>
<th>Service Add-ons</th>
<th>Internships</th>
<th>Service Learning</th>
<th>Service-Learning Advocacy</th>
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Source: Mooney & Edwards’ Hierarchy of Community Based Learning (2001)
Prevalence of Community Engagement

• NSSE (2009): 47% of college seniors reported participating in a community-based project (e.g. service-learning) as part of a regular course

• Campus Compact (2009): students enrolled at the Compact’s 1,198 member colleges and universities contributed an estimated 366 million hours of service to their communities during 2008–2009 academic year
Benefits of Community Engagement

• Astin et al (2000) identify a positive relationship between service and academic performance
• Markus, Howard, & King (1993) found an increase in gpa and higher class attendance

Yet, not all findings are unanimous...
• Tartter (1996), Kendrick (1996), and Boss (1994) found no differences in grade point average
Research Questions

1. Do freshman at the University of Minnesota-Twin Cities engage in community based learning activities? If so, what form does this participation take?

2. Does community based learning contribute to improved student outcomes after controlling for the effects of other variables commonly associated with student success?

3. Is the benefit associated with community-based learning conditional upon the level of importance a student places upon opportunities to learn in these types of environments?
Student Experience in the Research University (SERU) Survey

SERU AAU Consortium currently includes 16 major US public research universities:

- All 9 undergraduate campuses of the University of California system
- University of Michigan at Ann Arbor
- University of Minnesota-Twin Cities
- Rutgers University
- University of Florida
- University of Pittsburgh
- University of Oregon
- University of Texas at Austin
SERU Survey

• Systematic environmental scan of the undergraduate experience
• In-depth analysis of the varied types and levels of undergraduate engagement in research universities
• The survey is organized around five thematic research areas:
  – Academic engagement
  – Civic and community engagement
  – Global knowledge, skills, and awareness
  – Student life and development
  – Wildcard module for the University of Minnesota
SERU Survey Design

- Census Survey of Undergraduates
- Modular Construction—minimize time needed for completion
- Core Items (100% of participants)
- Modules (1 of 4 randomly assigned to varying % of participants)
  - Academic Engagement - 30%
  - Community & Civic Engagement - 20%
  - Student Development - 20%
  - “Wild-Card”—UM Specific Questions - 30%
What is the Purpose of the SERU?

Three major uses of the SERU Consortium design and survey products include the following:

- **ACADEMIC PROGRAM REVIEW**: The SERU Survey provides a census and longitudinal data set providing a broad range of analysis including comparisons with equivalent academic programs at other Consortium campuses.

- **CAMPUS AND PROGRAM ASSESSMENT/ACCREDITATION**: Provides ability to integrate SERU survey data with other campus data sets to identify effective programs and experiences to particular university strategic goals and missions.

- **ADDITIONAL REPORTS AND ANALYSIS**: Data and analysis for internal and external reporting needs. The SERU Survey is also part of the new “voluntary System of Accountability” (VSA).
In spring 2010, the SERU was distributed to 28,237 undergraduate students at the University of Minnesota-Twin Cities.

- 10,187 agreed to participate (36%).
- 9,630 students responded to at least one question (34%)
- 2,074 were assigned to complete Community and Civic Engagement module, of which 80% completed.
Do freshmen at the University of Minnesota-Twin Cities engage in community based learning activities? If so, what form does this participation take?

RESEARCH QUESTION 1:
Have you conducted service?

- Yes: 49%
- No: 51%
Thinking about your participation in all forms of community service, which includes service through clubs, courses, and one-time events, please estimate **how many total hours of service you completed this academic year?**
How did you get involved in community service?

- A formal service program (AmeriCorps, VISTA, etc.) where I receive pay or a stipend: 2% 4%
- My internship: 7%
- Other: 8%
- A university department or program: 11%
- A program where I receive course credit (e.g., field studies credit, for tutoring): 19%
- A related class: 22%
- My fraternity or sorority: 14%
- My religious organization or church: 11%
- Another student organization on campus: 2%
- I found the work on my own: 2%
Which of the following were significant reasons for getting involved in community service?

- Required by my fraternity/sorority
- Required as part of my academic program
- Location of where the work was to be conducted
- Encouragement from friends or family
- Opportunity to enhance my academic achievement
- Opportunities to develop leadership skills
- Change conditions in the community
- Opportunity to learn new things
- Strengthen my resume for graduate school or employment
- Unique or interesting opportunity arose to participate
- Belief in the particular cause
- Become a better citizen and community participant
What was the focus of the organization where you did this community service? (Top responses)

- Hunger: 20%
- Housing/homelessness: 11%
- Poverty: 10%
- Health: 9%
- Child care: 9%
- Tutoring: 9%
- Mentoring: 8%
- Education, pre-K to community college: 8%
- Environment/sustainability issues: 6%
- Access and success in higher education: 5%
- Disability issues: 4%
Does community based learning contribute to improved student GPAs after controlling for the effects of other variables commonly associated with student success?

RESEARCH QUESTION 2:
How many hours do you spend in a typical week (7 days) on … performing community service or volunteer activities?
Methodology

- N = 1807 NHS Students.
- Multivariate Approach to Identifying Potential Causal Factors Influencing First-Year GPA.
  - Academic Background
  - First Semester Performance
  - Demographic Characteristics
  - Geographic Origin
  - Financial Aid
- Ordinary Least Squares Regression.
- R-squared: Model 1 (.29), Model 2 (.29)
## Results: Academic Background

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
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- **Model 1**
- **Model 2**
- **P** < 0.01
- **P** < 0.05
- **P** < 0.10

*University of Minnesota*
# Results: Demographic Characteristics & Finance

<table>
<thead>
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- P < 0.01
- P < 0.05
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## Results: Geographical Origin

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<tr>
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### College Controls

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<tbody>
<tr>
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## Results: Community Service and Volunteerism

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- **P < 0.01**
- **P < 0.05**
- **P < 0.10**
Is the benefit associated with community service conditional upon the level of importance a student places these activities?

RESEARCH QUESTION 3:
Community Engagement Module

• During this academic year, have you done community service either on or off campus (no/yes)?

• To what extent do you agree or disagree with the following statements. (strongly disagree to strongly agree 1-6).
  – Opportunities for community service while here are important to me.
  – Opportunities to connect my academic work with community-based experience are important to me.
Methodology

• N = 304.

• Multivariate Approach to Identifying Potential Causal Factors Influencing First-Year GPA.

• Ordinary Least Squares Regression.

• Multiplicative Interaction Term.

• R-squared: Model 1 (0.367), Model 2 (0.378).
## Results: Academic Background & First Semester Performance

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- P < 0.01
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*University of Minnesota*
## Results: Demographic Characteristics & Finance

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**P-values:**
- □ P < 0.01
- □ P < 0.05
- □ P < 0.10
## Results: Community Service and Volunteerism

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- P < 0.01
- P < 0.05
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Tips for Avoiding Common Mistakes when Interpreting Interactions

1. Include each of the constitutive terms.
2. Do not interpret constitutive terms as unconditional marginal effects.
3. Do not forget to calculate meaningful marginal effects and standard errors.

Brambor, Clark, and Golder (2006).
Impact of Service on GPA as Importance of Service Opportunities Changes

![Graph showing the impact of service on GPA as importance of service opportunities changes.](image-url)
Impact of Service on GPA as Student’s Importance Placed on Connecting their Academic Work to the Community Changes (Low to High)

![Graph showing the impact of service on GPA with values ranging from 0.36 to -0.13.](image-url)
Limitations

• Lower response rate than we would prefer.
• Small sample size, particularly when selecting sub-populations with a module, hinders our ability to generalize.
• Measure of service is overly broad ignoring important nuances that exist in community based learning.
• GPA is only one potential measure of student performance.
Conclusions

• Controlling for other factors we found evidence supports that service and volunteer participation is positively associated with higher GPAs.

• Evidence also suggests that this relationship is potentially mediated by students' perceptions about the importance of service.
Future Research

Our study examined importance of opportunities; others shed light on how personal characteristics (Heffner & Beversluis, 2002), preferences (Moely, Furco, & Reed, 2008), and motives (Clary, et al 1998) impact community engagement outcomes.

These factors, in addition to others, are worthy of future study.
Future Research

• Community-engaged learning are designed to promote systematic gains across multiple areas:
  – Confidence
  – Psychosocial development
  – Attitudes and values
• These changes could occur for students not doing well academically
Future Research

• Students’ record of academic performance can be established through a variety of means:
  – Attendance records
  – Self-perceptions of academic success, relative to goals and aspirations
  – Pre-test/post-test measures on learning outcomes
  – Pre-test/post-test measures of efficacy and self-esteem

• Thus, grade point average is one point on a wide spectrum of academic achievement measures.
References


