



AAC&U 2010 Annual Meeting

Investing in Undergraduate Research: A High Impact Practice that Fosters Student Success

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Introductions

- **Who are we?**
- **What is Council of Undergraduate Research (CUR)?**
- **Overview of Session**

COUNCIL ON UNDERGRADUATE RESEARCH (CUR)

www.cur.org

- A **national organization** of individual (> 5,000) and institutional members (> 600) representing all disciplines and over 900 institutions of all types.
- The **mission** of CUR is to support and promote high-quality undergraduate student-faculty collaborative research, scholarship, and creative activity.

CUR RESOURCES

FACULTY & INSTITUTIONS

MEETINGS

National Conferences

CUR Dialogues

Institutes

Workshops

Summits

Posters on the Hill

SERVICES & PROGRAMS

Consulting Services & Speakers

Mentor Network

Grant Preview Service

CUR Fellows Awards

Listservs & E-news

Advocacy

PUBLICATIONS

CUR Quarterly • Scholarly Volumes • “How To” Series • White Papers

www.cur.org



The Wit:

What matters in college?

- The nature of a student's peer group.
- The quantity and quality of interactions with faculty outside the classroom.
- Integration of student's academic and social lives.
- Engagement in the intellectual life of the campus outside the classroom.
- Opportunities to make challenging coursework applicable and relevant.

(Astin, Terenzini, and others)

The Wit: What Undergraduate Research Does


- Increases faculty/student interactions outside the classroom.
- Increases student's independence and involvement in their own learning.
- Addresses different learning styles.
- Makes difficult coursework more relevant.
- Integrates students' academic and social lives.
- Develops students' critical thinking and problem-solving skills applicable to research and courses.
- Socializes a student in a discipline and ability to see oneself in the field.

Continued

- Helps students understand the demands and expectations of a field.
- Enables students from resource-poor high schools to develop skills, tools and experiences using state of the art equipment and the vocabulary of a field.
- At large schools, changes the quality and content of letters of recommendation.
- Increases the likelihood that students will pursue graduate and professional degrees.
- Improves the retention and academic success of diverse students.

Benefits to Faculty and Institutions

- Integrates research and teaching missions.
- Facilitates student recruitment and retention in STEM fields and overall.
- Increases faculty productivity.
- Enables faculty/institutions to secure funding for research, especially instrumentation and/or curricular.
- Informs teaching and mentoring of all students and in particular diverse students and/or women in the sciences.
- Enhances the curriculum, especially in STEM fields.



Example from the University of Michigan

Strategy: Through a longitudinal study of UROP we demonstrated that undergraduate research improves the retention of diverse students and the likelihood students will go on to graduate and professional school.

Result: Program was institutionalized and has been successful in securing internal and external funds.



The Will:

Key Factors which contribute to
a Successful and Sustainable
UR Program

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Key factors which contribute to a successful and sustainable UR program

Conversations and Definitions

- Undergraduate research, scholarship, creative work
 - ❖ Investigative or inquiry-based experiences vs. UG research
- Scholarship
 - ❖ Student-oriented vs. Research-oriented approaches
- Civic engagement
 - ❖ Service learning, community-based research, volunteerism, etc.
- 'Independent' student work
 - ❖ Independent research, independent study, internship, etc.



The Will:

Key factors which contribute to a successful and sustainable UR program

- “Research, scholarship, & creative activity” in the campus discourse
 - ❖ Developing a scholarly culture
 - ❖ Developing a culture of mutual trust
- Departmental and institutional faculty need to engage in a dialogue about what constitutes appropriate scholarly inquiry in their respective fields and what is the role of undergraduates
 - ❖ Observe models from peer and aspirant institutions
 - ❖ Define disciplinary standards for scholarship



The Will:

Key factors which contribute to a successful and sustainable UR program

How to 'Count' UG Research

- Is it teaching, or is it scholarship?
- It's both!
 - ❖ The mentoring component can be counted as teaching.
 - ❖ The outcome component can be counted as scholarship.

The Will:

Key factors which contribute to a successful and sustainable UR program

Faculty Strategies

- Recruiting new faculty members
 - ❖ Attitude & philosophy (teacher-scholar)
 - ❖ Student-centered & learning-centered
 - ❖ Recruitment practices
 - Advertisements, interview schedule, etc.
- Selecting projects
 - ❖ Adaptability & flexibility
 - ❖ Student-initiated vs. faculty-initiated
- Identifying students
 - ❖ Grades are not always the best indicator of success

The Will:

Key factors which contribute to a successful and sustainable UR program

Institutional Strategies

- Institutional documents
 - ❖ Include UG Research, Scholarship, and Creative Activity within the institution's:
 - mission statement
 - core learning outcomes
 - tenure & promotion policies
- Curricula that embrace engaged learning
 - ❖ UR courses fully credit-bearing within the majors
- Faculty and student recognition
- Internal grant programs
 - ❖ Collaborative with students

The Will:

Key factors which contribute to a successful and sustainable UR program


Institutional Strategies cont.

- Faculty workload
 - ❖ In-load credit for engagement in high-impact pedagogies, mentoring, and scholarship
- Institutional/administrative programs
 - ❖ UR, Grants, Faculty Development Offices, etc.
 - ❖ Celebration event / conference
 - ❖ Student journal
 - ❖ Notation on student transcript
 - ❖ Regular academic program reviews
 - ❖ Faculty mentoring

The Wallet: How to Build a UR Program with Limited Resources

Utilize existing resources:

- Inventory and highlight current UR activities, develop assessment plan and supporting data.
- Build into faculty load and curriculum.
- Work study funding.
- Scholarships/grants for underserved, specific disciplines.
- Faculty development funds.
- Internships or study away programs that incorporate research.
- Funding from indirect costs.
- Student government funding.



The Wallet: How to Build a UR Program with Limited Resources

Increase incrementally over time:

(this is a marathon, not a sprint)

- Multi-year plan for changes in faculty roles, curriculum.
- Showcase student accomplishments, build evidence of high impact.
- Cultivate alumni who have participated in the program, are supportive of UR.
- Reallocate a few more dollars every year.

Q & A

How can we build UR on my campus?

- What is the message that will resonate and needs to be told (link to mission)?
- What are the existing resources/opportunities that could be used?
- What/who are the barriers and what strategies can be used to overcome them?