

**UNDERGRADUATE RESEARCH  
AND SCHOLARLY ACTIVITY  
AT MURRAY STATE UNIVERSITY:  
A SURVEY OF FACULTY**



**Prepared By**

**Undergraduate Research & Scholarly Activity Advisory Board**

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## **EXECUTIVE SUMMARY**

Undergraduate students engaged in research, creative and scholarly endeavors at Murray State University are being mentored by faculty members. In total, 116 respondents completed an online survey which provided insight into undergraduate scholarly activities at the University. During the spring 2008 semester, 53% of survey respondents reported that they were engaging undergraduate students in scholarly endeavors while 47% were not. Respondents from a wide range of disciplines are engaging students both for personal reasons and to ensure student success in future endeavors. A majority of respondents (63%) report encouraging their students to present their work. Of the respondents, 22% indicated that they have co-presented at a professional conference and 22% have also co-authored an article with an undergraduate.

The majority of respondents (63%) identified successes associated with their projects. Regardless of success, respondents described impediments to their work that they have experienced, the most common being time restraints and/or teaching load, lack of student readiness and lack of funding. Despite the impediments, respondents indicated that they expect to engage students in scholarly work in the future in at least the same level of participation as was experienced in the past. The respondents offer a variety of recommendations to better support scholarly mentorship opportunities for undergraduate students at Murray State University.

## **INTRODUCTION**

During the spring semester 2008, the Advisory Board to the Office of Undergraduate Research and Scholarly Activity (URSA) designed and implemented an on-line survey to identify the types and extent of undergraduate engagement in research activities taking place at Murray State University (MSU). Participants were asked about their work with undergraduate students in past, present and anticipated future activities, both funded and unfunded. For the purposes of the survey, undergraduate “research” referred to any research, creative, and scholarly endeavors that are appropriate to the faculty member’s discipline. The MSU survey was modeled on a final report entitled Undergraduate Research and Research Mentorship at the University of the District of Columbia prepared by S. Suzan J. Harkness in 2007.

The survey was held open for the period 4/2/08 to 4/22/08 and implemented through FreeOnlineSurveys.com (<http://www.freeonlinesurveys.com>). An invitation to participate in the survey was generated by the URSA survey committee and sent to the college and school deans with the request to forward the invitation to faculty members in their colleges and schools.

In total, 116 respondents replied to the survey. Of these, 113 respondents reported their gender, with 58 males (50%), 55 females (47%), and 3 non-responses (3%). The respondents came from a wide variety of departments/programs within the university as shown in Table 1.

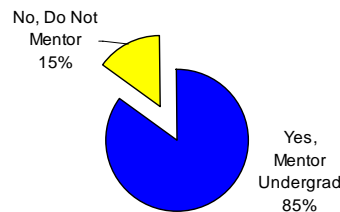
## **WORK WITH UNDERGRADATE STUDENTS**

The first question asked whether the respondents work with, have ever worked with, and/or intend to ever work with undergraduate students who participate as “researchers” in research, creative, or scholarly endeavors. The majority (85%)

indicated working with or intending to work with undergraduate students in these types of endeavors while 15% did not (Figure 1).

**Table 1. Department/Program of Survey Respondents**

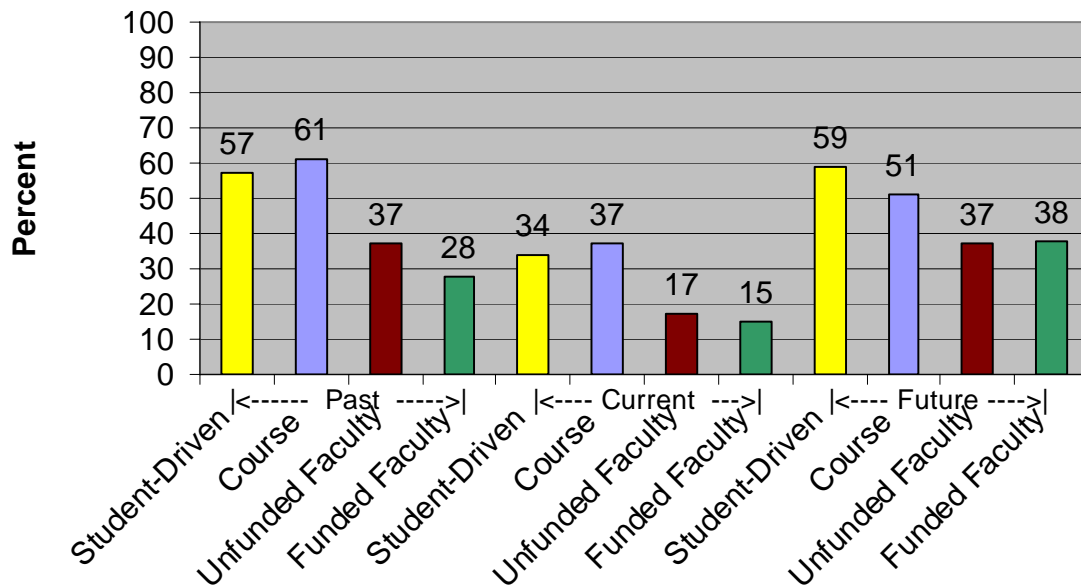
Department/Program	Frequency
Accounting	1
Agriculture	6
Art	3
Biology/Biological Sciences	8
Chemistry	4
College of Health Sciences & Human Services	2
Computer Science & Information Systems	1
Education/ACS/ECE	6
Economics and Finance	4
Engineering and Physics	1
English & Philosophy	4
Geosciences/Geoarchaeology	2
Government, Law, and International Affairs	4
History	3
Industrial Engineering Technology	1
International Studies	1
Journalism and Mass Communications	6
Management, Marketing & Business Administration	4
Mathematics & Statistics	5
Music	6
Nursing	2
Organizational Communication	5
Occupational Safety & Health	5
Psychology	5
Social Work, Criminal Justice & Gerontology	5
Sociology	1
Theatre	2
Telecommunications Systems Management	1
University Libraries	2
Wellness and Therapeutic Sciences/Athletics	3
No Response	13



**Figure 1. Proportion of Respondents Who Mentor Undergraduate Students in Discipline Appropriate Scholarly Endeavors**

## TYPE AND TIMEFRAME OF RESEARCH ACTIVITIES

It was of interest to identify the types of activities that respondents work with students on and the timeframe in which they work. As shown in Figure 2, respondents indicated whether they work with students currently, in the past, or expect to in the future on student-driven projects outside of course assignments, on projects that are part of a course assignment, on unfunded faculty projects, and/or on funded faculty projects.



**Figure 2. Percent of Respondents Working with Undergraduate Students by Timeframe (Worked with in the Past, Currently, or Expect to in the Future) and Type of Project**

As shown in Table 2, in student-driven projects that are conducted outside of course assignments, 57% of respondents indicated they have been involved in such projects in the past, 34% are currently involved in such projects, and 59% indicate that they expect to work with students on them in the future. In projects that are performed as part of a course assignment, 61% of respondents indicate they have worked with undergraduates in the past, 37% are currently involved in

such a project, and 51% expect to work with undergraduates in future projects. When reporting on utilizing undergraduates as assistants on unfunded faculty projects, 37% report utilizing assistants on past projects, 17% report utilizing assistants on current projects, and 37% report that they expect to utilize assistance in future unfunded projects. When considering projects for which faculty received funding, 28% report utilizing undergraduate assistance to complete projects in the past, 15% are utilizing assistance on a current on-going project, and 38% expect to seek undergraduate assistance on future funded projects.

**Table 2. The Percentage of Respondents Who Reported Working with Undergraduate Students on Each Type of Project in the Past, Currently, in the Future, and Respondents Who Do Not Work on That Type of Project with Undergraduates**

Type of Project	Percent of Respondents Working with Undergraduates (%)			
	In the Past	Currently	In the Future	Do not work with
Student-driven Project Outside of Course	57	34	59	28
Course Assignment	61	37	51	27
Unfunded Faculty Project	37	17	37	52
Funded Faculty Project	28	15	38	57

Based on the responses in Table 2, more projects are student projects (both student-driven projects outside of the course and course assignments) than faculty projects. The survey did not assess the level of faculty involvement on their own projects, thus this result could be attributed to either lack of faculty owned scholarly endeavors or to the faculty not inviting student participation in faculty owned endeavors.

In reviewing the time the projects were worked on, the current level of faculty mentoring in scholarly endeavors is lower than that which has taken place in the past and is lower than what respondents predict they will be doing in the future. This may be expected as the current time is based on one year whereas the other time periods potentially cover multiple years of work. In comparing reports of past work and expectations of future work, the respondents' level in the future is expected to be nearly equivalent to the level in the past. However, respondents seem to expect the type of project to change as they predict students will participate in fewer projects that are part of a course assignment (61% in the past vs. 51% in the future), but predict participation will increase in faculty funded projects (28% in the past vs. 38% in the future.)

## **BENEFITS RESPONDENTS RECEIVE**

Since the majority (85%) of respondents mentor undergraduate students on scholarly endeavors, it was of interest to identify the benefits that they perceive they are receiving. Table 3 lists the ways that respondents perceive that undergraduate students have enhanced their scholarly activities. The primary work benefits that were reported are that the respondents are able to accomplish more, gain a new perspective on the project, and finish the project more quickly. Respondents also indicated that they received a sense of personal satisfaction from mentoring and working with the students.

When asked about the outcomes of the scholarly activities, the majority of respondents report encouraging the students to present their work (63%) and/or publish their work (51%). For the respondents themselves, 22% report that they co-presented with an undergraduate at a professional conference and 22% co-authored an article with an undergraduate.

Respondents were asked to explain how they consider the scholarly projects that undergraduates participated in a success or failure. As listed in Table 4, 63% of

respondents provided reason(s) why they considered such projects a success (37% did not provide a reason) and 17% provided reason(s) why they considered them a failure as shown in Table 5 (83% did not indicate failures).

**Table 3. Respondents' Perceptions of the Benefits Received from Working with Undergraduate Students on Scholarly Endeavors**

	Percent of Respondents
Able to accomplish more	34
Gain a fresh perspective	34
Projects completed more quickly	21
Increase personal satisfaction	48
Other*	2

\* Other includes: creates an excitement opportunity in others; and students address problems that I "don't have time for or can count on only for a talk but not a paper".

**Table 4. How Work with Undergraduates Was Considered a Success**

	Percent of Respondents
Produced paper, presentation, poster or performance	18
Student gains experience/understanding of research	14
Student gains skills	14
Student prepared for graduate school or profession	11
Mentor gets more work done	4
Gain fresh perspective/different point of view	2
Mentor rewarded to see students mature	2
Other*	7
No Response	37

\*Other includes: "student project lead to interesting avenue for faculty work"; mentor is better able to evaluate students for future recommendations; adds to faculty knowledge base; gained good data; and 3 comments indicating that respondents acknowledge that quality can vary; success depends on the student and how the research turns out; and that success was reached when the project was simplified.

**Table 5. How Work with Undergraduates Was Considered a Failure**

	<b>Percent of Respondents</b>
Student did not complete project	<b>4</b>
Lack of student time commitment/interest	<b>3</b>
Mentor time commitment (e.g., better spent elsewhere; wasted time redoing work)	<b>3</b>
Inadequate student training/preparation	<b>2</b>
Non-starters back out	<b>2</b>
Lack of professional attitude	<b>1</b>
Lack of input after class finishes	<b>1</b>
No Response	<b>83</b>

### **IMPEDIMENTS AND SUPPORT TO ENCOURAGE RESEARCH ACTIVITIES**

The most frequently cited impediments to mentoring undergraduate students are time restraints and course teaching load as shown in Table 6. Respondents reported that the 4/4 course load, service and their own research leaves little time for mentoring undergraduates in scholarly endeavors. Respondents also report a lack of support to do such work, citing lack of funding to pay for labs, equipment, travel, basic supplies and sufficient library resources. Lack of finances also inhibits their ability to pay student stipends and student travel. Respondents also reported a lack of student readiness in both discipline-specific knowledge and research/writing skills, lack of student time, and lack of student interest.

Specific impediments related to lack of funding include:

- “There is no financial support from the university for research outside CISR and URSA grants ‘to tide things over’ and keep projects going until the next grant can be secured. Even when actively seeking grants, there can be gaps in the support that basically shuts down the research.”
- “Lack of funding sources for projects needing about \$7,000-\$20,000. It is too much for most local and state agencies.....[but too small for]...big agencies like NSF. The result is that most projects have to be very small and often with little sophistication, cutting-edge technology, etc., or they are huge, multi-year investigations that are intellectually beyond the scope that can be handled by many undergrads. We need something in between.”

- “Cost. Equipment and supplies for the physical sciences often greatly exceeds (factor of 10 or more) the cost of supporting the undergraduate. CISR is some help but does not begin to cover the cost of some equipment.”

**Table 6. Impediments to Engaging in Scholarly Endeavors with or without Undergraduates**

	Percent of Respondents
Time Restraints	31
Student Readiness, Time, Interest	16
Lack of Funding (Travel, basic supplies, pay students)	16
Teaching Load	10
Timeframe does not coincide with academic & student calendar	2
Lack of lab facility & specific equipment	2
Distance – not on main campus	2
Limited library resources	2
Discipline not appropriate for student work	2
Difficulty connecting with students	2
Other*	6
No Response	28

*\*Other includes: reduction of perceived value of faculty work if co-authored with students; publication and presentation are encouraged over research studies in respondents department; amount of paperwork; no credit is given to the faculty; exploitation of undergraduate work for faculty benefit; IRB process is too cumbersome for class research; and the consideration of who would own or have the rights to the materials after the research.*

### **University Support to Facilitate Opportunities**

Respondents are very aware of grants and funding available to support scholarly endeavors. The study found that 81% of respondents are aware of funding such as URSA grants and URSA fellowships that are directly available to undergraduate students to support student-driven projects. The study also found that 79% are aware of funding opportunities that are available to faculty such as the Committee on Institutional Studies and Research (CISR) grants and collegiate professional development funds. While these latter funds support

faculty projects, faculty may choose to use the funds to hire undergraduate students to work on the projects.

A number of respondents expressed appreciation for the current level of university support. Individual comments included:

- “MSU does a very good job by offering URSA/CISR grants, Scholars Week, and Sigma Xi competition.”
- “Current support is fine.”
- MSU “seems to be very supportive.”
- “I think the university already does a lot in this regard.”

Respondents suggested a number of ways that the university could offer or improve its support of their efforts in involving and mentoring undergraduates in scholarly endeavors as shown in Table 7.

**Table 7. Respondents Recommendations for How the University Could Better Support Their Efforts in Involving and Mentoring Undergraduates**

	Percent of Respondents
Time/Release Time/Load Credit/Comp Time/Sabbatical	21
Funding	11
Stipend/Funding/Incentive for Students	7
Financial Incentive/Reward/Merit Pay for Mentor	4
Equipment and Supplies	4
Travel for Faculty	4
Travel for Students	2
Tenure/Promotion Credit for Mentor	2
Clear Directives from University	2
Workshop	2
Other*	3
No Response	30

*\*Other includes: facilities; method to connect interested students to projects; summer salaries; and information on available resources.*

The most common responses on how the university could better support these endeavors dealt with time, funding issues, and rewards. Respondents suggested that the university could aid in making time for these endeavors by providing release time, comp time, load credit and/or sabbaticals. The second most common response involved providing funding. Funding suggestions included the general need for funds, as well as funds specifically to provide stipends for students, pay human subjects, put materials in the library, and travel funds for both students and mentor. Third were suggestions to provide financial incentives/reward/merit pay and/or tenure/promotion credit for mentors and/or incentive rewards for students. Next on the list was to provide equipment and supplies. Additionally, several respondents indicated they would like more direction and guidance from the university, specifically on 'clear descriptions of opportunities for research and guidelines for doing so', 'defined opportunities, clear objectives for faculty and student', 'more clearly defined recognition of these efforts toward service, research and teaching in tenure or merit pay', and 'workshops advising faculty on how the research projects can and have worked and encouraging students to imagine the kinds of projects for which they'd solicit a faculty mentor.'

Additional comments made in response to how the University could better support efforts include:

- "It would be easier to engage these students if it was easier to get them a small stipend (like work study) to participate....in my unfunded research"
- "...have the reference librarians/CTLT offer 'short courses' (1-2 hr workshops) for student researchers on topics like federal data sources, searching for academic literature and quick start demos (e.g., SPSS)"
- "...Improved reading, writing, and math skills would be good for every student..... The university could help by making some tougher across the board requirements.... If the basic academic skills of undergraduates would improve, it would be much easier to use undergraduates in research."
- "It takes as much time to mentor a single student in undergraduate (and often graduate) research as it does to teach a course to 144 students....Release time should be provided....The equivalent of one credit-hour of release time per student mentored would be a good start."

- “For the university to take seriously disciplines outside of the sciences that encourage, mentor, and support student research.”
- “Too much emphasis is placed on collaborative work with undergrads, and too little is placed on mentoring undergrads in their own work. Not all fields are appropriate for collaborative research/scholarship with undergrads....”
- “Actually, I’d rather the university support research by graduate students.”
- “Too much emphasis on it already – should fund faculty research PERIOD.”

## **CONCLUSION**

Undergraduate students are currently and have been engaged in research, creative and scholarly endeavors at Murray State University. During the spring 2008 semester, 53% of survey respondents reported that they were engaging undergraduate students in scholarly endeavors. Respondents from a wide range of disciplines are engaging students both for personal reasons (e.g., to get more work done) and to ensure student success in future endeavors (e.g., graduate school and professional life.)

The majority of respondents (63%) identified successes associated with their projects, while only 17% indicated failures in the projects. Regardless of success or failure respondents described impediments to their work, the most common being time restraints and/or teaching load, lack of student readiness and lack of funding. Despite the impediments, respondents indicated that they expect to engage students in scholarly work in the future in at least the same level of participation as was experienced in the past. The respondents offered a variety of recommendations to better support scholarly mentorship opportunities for undergraduate students at Murray State University.

## APPENDIX 1: Survey

### Undergraduate Participation in Scholarly Activities

Welcome Murray State University colleague!

The members of the Undergraduate Research and Scholarly Activity Advisory Board appreciate your participation in our survey. We will use the results to better direct URSA's endeavors to promote undergraduate engagement in discipline-appropriate scholarly activities at MSU. Please be assured that your individual responses and comments will remain completely confidential.

When responding to the questions below consider undergraduate students and any research, creative and scholarly activities that they are currently engaged in with you or projects that they have been engaged in with you in the past. For the purposes of this survey, "*undergraduate research*" refers to any research, creative, and scholarly endeavors that are appropriate to your discipline whether they are funded or unfunded.

Please complete the survey one time only. Note that after you enter the survey, you'll need complete the survey and submit it in one session (e.g., you cannot save your responses and return to them later.) When you're done, click on the 'submit button' at the end.

\*1) In research, creative and scholarly endeavors, do you work with, have you ever worked with, and/or do you intend to ever work with UNDERGRADUATE students who participate as "researchers"?

No (If NO, you may SKIP ahead to question 9)

Yes

2) Have you worked with (and/or intend to work with) undergraduate students on a STUDENT-DRIVEN research/creative/scholarly project OUTSIDE of a course assignment? (Check all that apply)

No

Yes, I have worked with them in the past

Yes, I am currently working with them

Yes, I expect to work with them in future projects

3) Have you worked with (and/or intend to work with) undergraduate students on a research/creative/scholarly project that was PART OF A COURSE ASSIGNMENT? (Check all that apply)

No

Yes, I have worked with them in the past

Yes, I am currently working with them

Yes, I expect to work with them in future projects

4) Have you utilized (and/or intend to utilize) undergraduate students as ASSISTANTS on an UNFUNDED FACULTY research/creative/scholarly project? (Check all that apply)

- No
- Yes, I have utilized them in the past
- Yes, I am currently utilizing them
- Yes, I expect to utilize them in future projects

5) Have you utilized (and/or intend to utilize) undergraduates as ASSISTANTS on a FUNDED FACULTY research/creative/scholarly project? (Check all that apply)

- No
- Yes, I have utilized them in the past
- Yes, I am currently utilizing them
- Yes, I expect to utilize them in future projects

6) Does your involvement with undergraduate research students ENHANCE YOUR OWN scholarly activities? (If yes, indicate how by checking all that apply.)

- No
- Yes, able to accomplish more
- Yes, projects are completed more quickly
- Yes, fresh way of looking at things
- Yes, increases personal satisfaction

Other

7) Do you consider research, creative and/or scholarly projects in which you have worked with undergraduates a SUCCESS OR FAILURE? Please explain.

Success

Failure

8) Have you ever: (Choose ALL that apply)

- Encouraged an undergraduate to present at a professional conference?
- Been a co-presenter with an undergraduate at a professional conference?
- Encouraged an undergraduate to publish his/her research/creative/scholarly work?
- Co-authored an article with an undergraduate?

9) Please describe any IMPEDIMENTS to engaging in research/creative/scholarly endeavors with or without undergraduate students and your concerns related to such efforts.

10) In what ways would you like to see the University SUPPORT YOUR EFFORTS in involving and mentoring undergraduate research/creative/scholarly activities? Please describe what you would need.

11) Are you aware of grants or other funding available TO FACULTY to support undergraduate research/creative/scholarly activities? (e.g., CISR grants, collegiate professional development funds)

Yes

No

12) Are you aware of grants or other funding available TO UNDERGRADUATE STUDENTS to support research/creative/scholarly endeavors? (e.g., URSA grants, URSA fellowships)

Yes

No

13) What is your gender?

Female

Male

14) What is your discipline and/or area of specialization?

15) What is your department and/or program?