

Research

Undergraduate Research Funding for STEM Majors Idaho State University FINAL PROJECT REPORT for HERC Funds November, 2024

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## Summary

In FY 24, we experienced an increased interest by students in undergraduate research. Central to the student learning experience is the mentor-mentee relationship. Students at Idaho State University engage in research at all levels of Science, Technology, Engineering, and Math (STEM). We recognize the impact of faculty-led research experiences on students to enhance their understanding of academic concepts and build professional skill development that makes them competitive in high-demand industry jobs. Therefore, Undergraduate Research is Goal Four in ISU's Strategic Plan.

Because ISU serves rural communities, whereas 41% of our students are first-generation students unfamiliar with research, the Office for Research casts a campus-wide outreach effort to inform students about paid research opportunities; this approach ensures access for all students. According to the Bureau of Labor Statistics, STEM majors are experiencing strong industry growth and the best return on education investment. To help students pursue their career goals in high-demand industry sectors, we work to eliminate barriers for our most vulnerable populations. At ISU, 39% of our students are Pelleligible, and paid learning opportunities allow students who may otherwise have competing financial responsibilities to participate in research (IHE, Nov 4, 2024).

With the support of the Idaho State Board of Education, we awarded funding to seven faculty researchers. PIs were awarded up to \$8,000 to support two or three students at \$13.00 per hour, including funding for materials and supplies. In addition, \$5,000 was awarded to nine students for conference travel to present research at prestigious national conferences. An additional \$10,000 was awarded to McNair Scholars to support student research and travel. These funds were used for poster printing, travel, and equipment for twenty-two students.

Finally, students who participated in the funded HERC experience had the opportunity to present their research at the ISU Undergraduate Research Symposium in February 2024. In July, twenty-five students took advantage of transportation via a chartered bus to attend the ICUR conference held at Boise State University. We also welcomed a cohort of eight McNair scholars and their coordinators. Seven ISU faculty members also traveled to ICUR to participate in the "Meet a Professor" event. Idaho State University students engaged in the conference experience by sharing their research in poster presentations, lightning talks, panels, and faculty-student paired talks. The opportunity for our students would not be possible without the generous support from the State Board of Education. These experiences prepare our students for Idaho's high-demand industry jobs in the growing STEM fields. For a broader understanding of the experience our students gained, please refer to the ICUR conference report from Boise State University, where you will find participant testimonials.

Attached to this summary, please see the reports on the research activity supported by this grant cycle and the experiences our students gained this past academic year. If you have any questions, please call the Office for Research about any research presented in this report.

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